Sustainability Impact Assessment (SIA) in support of Free Trade Agreement (FTA) negotiations between the European Union and Republic of Indonesia

Draft Final Report

Prepared by DEVELOPMENT Solutions
[04 April 2019]

EUROPEAN COMMISSION
Directorate-General for Trade
Directorate C – Asia and Latin America
Unit C2 – South and South East Asia, Australia, New Zealand
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European Commission
B-1049 Brussels

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Executive Summary

In 2007, Free Trade Agreement (FTA) negotiations were launched between the Association of Southeast Asian Nations (ASEAN), which includes Indonesia, and the European Union. However, by 2009, negotiations with ASEAN were paused and gave way to bilateral negotiations. Negotiations for an EU-Indonesia FTA were launched on 18 July 2016 and seek to enhance trade and investment relations. The Comprehensive Partnership and Cooperation Agreement which entered into force in 2014 governs the overall relations between the EU and Indonesia.

The aim of these FTA negotiations is to eliminate or reduce tariff and non-tariff barriers to trade in agricultural products, manufactured goods and services and thereby facilitate trade flows, realize the untapped potential of and expand FDI, level the playing field between private businesses and state-owned enterprises, and contributing to sustainable development objectives.

It is in this vein that DG Trade has commissioned the preparation of a Trade Sustainability Impact Assessment (SIA) for FTA negotiations between the EU and Indonesia. The major goals of this SIA are:

i. To present a robust analysis of the potential economic, social, human rights and environmental impacts that the trade agreement could have, in the EU, in Indonesia, in developing countries and least developed countries, as well as in Turkey[1];
ii. To employ a continuous and wide-ranging consultation process which ensures a high degree of transparency and the engagement of all relevant stakeholders in the conduct of the SIA inside and outside the EU and Indonesia; and
iii. To provide recommendations regarding positive impacts and best-practices, suggests ways to enhance these, and formulate proposals to avoid or minimise any unintended negative effects.

This Final Report is the third of three deliverables in the SIA process, following the publication of the Interim Report in March 2019 (Draft Interim Report was published in October 2018) and the Inception Report in August 2018. The Final Report builds upon the Interim Report, presenting the results and providing policy recommendations. The recommendations are presented in the form of measures to be included in the FTA and accompanying measures. The Final Report also provides a detailed overview of the stakeholder consultation process undertaken for the SIA.

Methodology Employed

For the quantitative analysis, the key tool used within the SIA is a multi-region Computable General Equilibrium (CGE) model based on the framework of the Global Trade Analysis Project (GTAP). For the purposes of this report, the model has been run by DG Trade to quantitatively estimate the potential economic impacts of a free trade agreement between the EU and Indonesia. This quantitative approach is complemented by a qualitative analysis. Throughout the analysis liberalisation scenarios are compared against baseline projections. The baseline scenario serves as the benchmark against which impacts arising from the EU-Indonesia FTA are measured, while the liberalisation scenarios represent a prediction of the potential outcome of an agreement and serve as the basis for assessing the impacts that are likely to arise as a result.

[1] Turkey is linked to the European Union by a customs union agreement.

EU-Indonesia Relations

The EU and Indonesia signed in November 2009a Comprehensive Partnership and Cooperation Agreement (PCA), which provides the overall framework for EU-Indonesia relations. The negotiations of an EU-Indonesia FTA were launched on 18 July 2016.

The EU and Indonesia have a strong economic relationship, with Indonesia being the fifth largest trading partner of the EU in ASEAN and the 29th largest trading partner in the world in 2017. The EU is the fourth largest trading partner of Indonesia. EU's exports to Indonesia mainly consist of machinery and appliances, transport equipment and products of the chemical or allied industries, while major imports of the EU from Indonesia consist of animal or vegetable fats, machinery and appliances and footwear, hats and other headgear.

The EU and Indonesia also have a history of cooperation in the fields of social development and human rights dialogue, as well as on environmental issues, with multitude of cooperation programs between the two parties.

Overall Economic Impacts and Policy Recommendations

A reduction in tariffs and non-tariff barriers as a result of the prospective FTA is expected to lead to overall increases in welfare, GDP and trade for both the EU and Indonesia. The size of these gains is projected to be positively correlated with the degree of liberalisation, with greater removal of tariffs and non-tariff barriers (NTBs) projected to lead to larger increases. The results of the CGE modelling exercise indicate that by 2032 the expected increases in EU welfare will range from €2 billion to €2.44 billion and increase in EU GDP will range from €2.46 billion to €3.09 billion. For Indonesia, the expected gains are more pronounced, with forecasted increases to welfare and GDP ranging, respectively, from €2.8 billion to €3.23 billion and €4.56 billion to €5.19 billion by 2032.

The FTA is also expected to have positive impacts on trade for both sides. For the EU, the CGE modelling exercise expects an increase in overall exports ranging from €5.03 billion to €5.89 billion under the conservative and the ambitious liberalisation scenario respectively. Similarly, the model projects an increase in EU exports to Indonesia by €6.32 billion and €7.76 billion.

The CGE model projects Indonesian global exports to increase by €5.03 billion under the conservative scenario and almost €5.60 billion under the ambitious scenario. Similarly, Indonesian bilateral exports to the EU are expected to increase by €6.75 billion and €6.95 billion under the conservative and the ambitious scenario respectively.

The size of the ultimate impact is likely to be significantly influenced by the extent to which NTBs are eliminated, making provisions pertaining to, *inter alia*, technical barriers to trade (TBTs), sanitary and phytosanitary (SPS) measures, customs and trade facilitation, rules of origin, and investment of notable significance to the eventual outcomes that arise as a result of the agreement.

Reduction in tariffs and NTBs under the prospective FTA will lead to substantial increases in the value of goods and services traded bilaterally between the EU and Indonesia. Structurally, the agreement is expected to promote a reallocation of resources in each economy over the long-term in response to the agreement, leading to changes in output, shifts in overall trade and, potentially, realignment and intensification of certain global production chains.

Specifically, the CGE model projects significant increases in output and exports of industrial products from the EU. Sectors particularly likely to experience gains

include: motor vehicles and parts, paper and paper products, chemical, rubber and plastic products and machinery. For Indonesia, significant increases in output and exports of textiles, apparel and footwear are expected, coinciding with greater integration with the EU's global production chain of these products.

For agri-foods, the model predicts that the agreement could lead to increased production of dairy and alcoholic beverages in the EU, while growth in bilateral exports of processed foods and palm oil is similarly expected to occur for Indonesia. In the process, diversion of Indonesian exports of palm oil away from third countries may occur. In terms of services, the agreement's impact is likely to result primarily from investment and from growth in demand of services that cater to industrial activity, with the potential of increased foreign direct investment (FDI) inflows to Indonesia.

While the overall gains are projected to be positive, certain sectors are expected to experience declines in output and/or overall exports. For the EU, declines in output and overall exports are projected to arise in textiles, apparel and footwear while Indonesia is estimated to see declines in motor vehicles and parts, machinery, paper and paper products, chemical, rubber and plastic products and metal products sectors.

SMEs are the backbone of both Indonesia and the EU. While the prospective FTA is expected to provide opportunities to SMEs though reduction of tariffs and especially through reduction of NTBs, the gains for SMEs depend on the agreement's specific support measures, as SMEs on both side lack awareness on opportunities on each party's market as well as in each other's export-import rules and regulations.

To maximise the positive economic impacts of the prospective FTA, **the SIA study recommends that the negotiators seek to conclude an agreement that results in the greatest degree of liberalisation possible**, while **allowing for phasing in of tariff reductions**, with consideration given to granting lengthier transitions for products where economic impacts and adjustment costs are expected to be greater under a full liberalisation scenario, such as textiles and apparel for the EU and motor vehicles and machinery for Indonesia.

Furthermore, to facilitate maximum positive impacts on trade, the study recommends **increased bilateral cooperation in areas like SPS measures**, as well as including **provisions in the prospective FTA for increasing the use of international standards by Indonesia** within its national technical regulations and greater transparency in notification procedures.

As most economic gains in the services sector are likely occurring through investments in the services sector, **the removal of behind-the-border barriers, strengthening investor protection, and promoting investor confidence should be emphasised** in the provisions on services and investment of the prospective FTA.

Finally, in order to maximise positive economic impacts for SMEs and to minimise any negative impacts, the prospective FTA needs to address supporting measures for the SMEs. **It is thus recommended creating a single information point (a website)** where European SMEs could gather information about market opportunities in Indonesia and the EU-Indonesia FTA provisions as well as to provide information on import-export procedures and business culture in Indonesia. The website should be **supported by an EU-Indonesia SME Helpdesk**. Furthermore, **capacity-building assistance for Indonesian SMEs** is necessary to facilitate their integration into EU's global supply chains.

Overall Social Impacts and Policy Recommendations

In terms of social impacts, the prospective FTA is expected to raise wages for both skilled and unskilled labour in the EU and in Indonesia, offering opportunities for improved living standards.

Furthermore, increases in GDP as mentioned above are expected to have positive implications on many social aspects, especially in Indonesia, including on education, living standards and social protections, depending on the direction of government's policies.

Furthermore, the prospective FTA is expected to bring about notable shifts in employment in the most affected sectors. Most notably, employment in the garment textile and footwear (GTF) industry in Indonesia is expected to increase over 10 per cent, potentially leading to a significant creation of jobs (approximately 126,000 to 294,000 jobs), providing opportunities for women, while in the EU the expansion in the automotive industry could lead to the addition of approximately 2,800 skilled and unskilled well-paid jobs. On the other hand, job contraction in some sectors would also occur. Most notably, the textile, wearing apparel and footwear sectors in the EU are expected to experience the greatest job losses. In Indonesia, a shift of up to 60,000 workers out of the automotive sector can be expected. Shifts in employment could exacerbate Indonesia's already existing problem with skills mismatch.

Trade liberalisation could also have potentially negative impacts on working conditions in Indonesia as trade under the prospective FTA would result in increased demand for employment in sectors historically less likely to meet decent working conditions including textile, wearing apparel and leather industry. Concerns also arise that vulnerable groups, including women and children would bear the brunt of poor working conditions.

In order to mitigate any potentially negative impacts of the prospective FTA, the study recommends that **both parties ratify, promote and implement relevant ILO Labour Conventions as well as adhere to the ILO Decent Work Agenda**, in line with the text proposed by the EU, while calling for further **bilateral cooperation in protecting the most vulnerable groups**. As the skills mismatch problem in Indonesia is especially worrisome, the study recommends that the EU could consider **supporting capacity-building programs in Indonesia, especially in terms of national Technical and Vocational Education and Training systems**.

As an accompanying measure, it is recommended **that the parties jointly consider ways to strengthen the capacity and enforcement of labour inspections** in order to address the potentially negative social impacts of the prospective FTA on labour conditions in Indonesia. Furthermore, to maximise any positive impacts, it is recommended that **both parties support and promote CSR/RBC policies and initiatives** including the UN Guiding Principles on Business and Human Rights, the UN Global Compact as well as the OECD's Guidelines for Multinational Enterprises.

Overall Human Rights Impacts and Policy Recommendations

The SIA study found five main categories of human rights that could be impacted by the prospective EU-Indonesia FTA: (i) land rights, (ii) the right to food, (iii) children's right to survival and development, (iv) access to affordable medicines and (v) women's rights.

Overall, the prospective FTA could contribute to the advancement of human rights in Indonesia through the role of EU companies as fosterers of various CSR and RBC

practices throughout Indonesia, providing an additional governance framework and reference point for Indonesian authorities and business networks to advance their own policy, regulatory and compliance frameworks.

Similar to the findings for the social impact analysis, with regard to human rights the prospective FTA could have some negative impacts on the people in Indonesia occupied in and around the sectors that are expected to see rapid expansion, especially in sectors where concerns already exist on human rights. For example, considering Indonesia's rather weak implementation of laws on indigenous peoples' land rights, increasing trade in sectors where concerns on land rights are relevant, such as forestry and wood products, could run the risk of increased human rights violations, as raising profits could potentially disincentivize the improvement of enforcement mechanisms for indigenous people's land rights by both the private and the public sector.

To minimise the potential negative impacts of the prospective FTA and to maximise its positive impacts, the study recommends that **the Trade and Sustainable Development Chapter of the prospective FTA calls for parties to support and promote CSR/RBC policies and initiatives** including the UN Guiding Principles on Business and Human Rights, the UN Global Compact as well as the OECD's Guidelines for Multinational Enterprises. To offer another layer of protection to the most vulnerable groups in Indonesia including women, children and indigenous people, the study recommends parties **to further cooperate bilaterally on human rights issues for the most vulnerable groups through an already established Human Rights Dialogue**.

Overall Environmental Impacts and Policy Recommendations

The environmental analysis concludes that since the prospective FTA would change the composition of current trade relations between the EU and Indonesia, placing greater emphasis on some products over others due to elimination of barriers, several environmental implications may surface. For example, due to increase in GDP, greenhouse gas (GHG) and CO_2 emissions in both parties are bound to increase. The EU would see an expansion of its CO_2 emissions by 0.408 MT under a conservative scenario and by 0.534 MT in an ambitious scenario. This compares to 1.486 MT and 1.655 MT for each respective scenario for Indonesia.

Expansion of water-intensive industries including textile, leather and wearing apparel could potentially lead to degradation of water quality in Indonesia due to this sector's high reliance on water, fossil fuel and chemicals leading to decreased water-quality and waste-water issues potentially amounting to environmental hazards. Furthermore, considering waste management, and especially Indonesia's limited capacity to ensure sustainable waste management for non-biodegradable products, the increased presence on the Indonesian market of such products expected under the prospective FTA raises concerns about negative environmental impacts as these products often require a more complex waste-management systems to dispose of than what Indonesia currently operates.

On the positive side, should the prospective FTA further liberalise the green technologies in Indonesia, a possible technological effect arising from this could have an off-setting effect on negative environmental impacts via technological innovation in areas including, water quality improvement, reduction of GHG emissions as well as waste management solutions. Furthermore, the improvement/further diffusion of sustainability certification standards could bring positive environmental impacts both in the EU and in Indonesia, ultimately contributing to both parties' respective commitments under the Paris Agreement, as well as to more cost-effective and resource-efficient global value chains.

To mitigate potential negative impacts of the prospective FTA, it is imperative that **both parties pay attention to reducing environmental impacts resulting from the conclusion of the prospective FTA**, including impacts relating to CO_2 and GHG emissions, air and water quality, biodiversity and sustainable waste management. To achieve this, **bilateral cooperation on environmental standards and certification systems as well as commitment to implementing Multilateral Environmental Agreements including UNFCCC and the Paris Agreement** are recommended.

Impacts on Cross-cutting Issues and Policy Recommendations

The prospective EU-Indonesia FTA could increase bilateral FDI flows and especially EU investments into Indonesia, leading to increases in national growth, competition and product quality, benefiting the consumers in the country. Strong intellectual property rights (IPR) protection is likely to further increase potential beneficial impacts on investments, as it increases investor confidence. At the same time, the inclusion of a mechanism to deal with investor-state disputes causes some concerns for the civil society if it is skewed in favour of the investors.

In terms of public procurement, the prospective FTA could lead to increased revenue for EU firms by improving access to Indonesia's public procurement market. While this may lead to losses for some Indonesian firms, improved efficiency and greater competition could result in reduced corruption , improved governance and greater fiscal space in Indonesia over the long-term.

Concerning IPR, EU producers are expected to benefit from a strong IP protection in Indonesia since harmonised IPR registration and compliance standards would reduce the costs associated with IP management. Furthermore, effective protection of geographical indications (GIs) in Indonesia as a result of the prospective FTA can boost rural development in both the EU and Indonesia and increase GI trade and cooperation between both parties. Nevertheless, from the Indonesian industry perspective there is a concern that a strengthened IP regime could in turn constrain the country's efforts to build a national pharmaceutical industry, able to contribute to the production of cheaper generic medicines for its population. Civil society has also raised concerns on the impacts that IPR provisions could have on access to medicines, notably for marginalised groups.

To maximise potential positive impacts of the prospective FTA on the investments, the negotiators should **strive for the maximum liberalisation of investments, especially regarding green technologies and renewable energies**. As a stable policy environment increases investor confidence, it is recommended to include **investor protection clauses together with the Investment Court System to the investment provisions**, while **maintaining the balance between protecting the investor's interest and the policy space for both parties** to regulate in terms of upholding its environment, human rights or social policies.

In terms of intellectual property rights, it is essential that the negotiators would **aim for strong IPR protections** in all major areas of IPR rights including trademarks, patents, designs, plant varieties, copyright, geographical indications and IPR enforcement, as well as stronger IPR border measures, while **putting in place cooperation measures to provide assistance to Indonesia** in improving IP enforcement.

Detailed Sector Analysis and Policy Recommendations

Contrary to concerns raised by several stakeholders, tariff reductions under the FTA would see a slight decrease of Indonesia's output of **vegetable oils and oilseeds** (namely palm oil). As bilateral trade in palm oil increases, it is suggested that the prospective FTA will largely promote diversion of Indonesia's exports in favour of

the EU from third countries. Although, the prospective FTA is not expected to have notable impacts to human rights situation in the palm oil sector, concerns exist with regard to working conditions, and environmental issues including deforestation, thus the study recommends **that both parties work on strengthening the certifications schemes used in the palm oil sector.**

Regarding the **fisheries** sector, the prospective FTA would have a positive economic impact on both parties; however, the impact is expected to be rather minimal and dependent on the agreement's ability to eliminate non-tariff barriers between the trading partners. Although not exacerbated by an FTA, concerns exist for the fisheries sector about poor working conditions and the use of child labour, **ratification and implementation of ILO Conventions as well as ILO Decent Work Agenda are of particular importance**. In addition, as there are environmental concerns about overfishing, unsustainable fishing and Illegal, Unreported and Unregulated Fishing (IUU), **EU's assistance in capacity building to strengthen the Catch Certification Scheme in Indonesia would be an important flanking measure**.

Economic impacts on the **energy and mining** sector in Indonesia are expected to be minimal and dependent on the agreement's ability to further liberalise investments. Although not exacerbated by the FTA, concerns remain about the working conditions in this sector. Furthermore, environmental concerns about air, water and soil pollution also remain. It is recommended that the **EU would provide assistance to Indonesia in capacity building and strengthening of national labour inspections**. Furthermore, **EU's assistance with strengthening Indonesia's capacity in implementing the Environmental Management and Monitoring Plan** would also be a useful flanking measure.

The prospective FTA is expected to have a significant positive economic impact on Indonesia's **clothing and apparel** sector, in terms of increased overall exports and output, offering opportunities to Indonesian SMEs and leading to general job creation in the country. At the same time, the clothing and apparel sector is expected to slightly shrink in the EU, leading to decreases in jobs. The expansion of the clothing and apparel industry in Indonesia raises concerns about the situation with regard to working conditions, since the industry is reported to have relatively low labour standards as well as to use child labour. Since the clothing and apparel industry is water-intensive, environmental concerns relating to water-pollution and waste management also remain. To minimise potential negative impacts of the prospective FTA, the study recommends that **both parties would cooperate and share best practices on the matters of working conditions, labour inspections and strengthen the ability to join and form trade unions**. Furthermore, **cooperation on innovation and dissemination of know-how is also recommended to mitigate potential negative environmental impacts on the GTF sector**.

The prospective FTA is expected to have positive economic and social impacts in **motor vehicles and parts** sector in the EU, leading to increase in overall exports as well as creation of well-paid jobs. This sector is however expected to decrease in Indonesia, leading to potential losses of well-paid jobs. As the automotive sector is important to Indonesia in terms of job creation, to mitigate Indonesia's loss of well-paid jobs, the study recommends that **both parties should consider a transition period for the full tariff liberalization for the motor vehicles and parts sector**, allowing Indonesia to adjust.

The prospective FTA is expected to have limited impacts on **financial services** sector in both countries, while it could play a role in facilitating financing mechanisms of European banks in Indonesia, which contribute to positive environmental impact. To maximise positive environmental impacts, it is

recommended to **liberalise investments in financial services between the EU and Indonesia**.

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List of Abbreviations

ACD – ASEAN Cosmetic Directive
ADB – Asian Development Bank
AHCRS – ASEAN Harmonized Cosmetic Regulatory Scheme
AMDAL – Law on the implementation of the Environmental and Social Impact Assessment
ASEAN – Association of Southeast Asian Nations
AQRF – ASEAN Qualification Reference Framework
BITs – Bilateral Investment Treaties
BPJPH – Indonesian Halal Product Assurance Agency
BPOM – National Agency of Drug and Food Control
BRT – Bus Rapid Transit
BSE – Bovine Spongiform Encephalopathy
BSN – Indonesian National Standardisation Body
CSDs – Civil Society Dialogues
CEDAW – Convention on the Elimination of Discrimination against Women
CETA – EU-Canada Comprehensive Economic and Trade Agreement
CGE – Computable General Equilibrium
CITES - Convention on International Trade in Endangered Species
CnC – Clean and Clear Certificate
CoO – Certificate of Origin
CPOB – Good Manufacturing Practices
CRA – Country Registration Agreement
CRC – Convention on the Rights of the Child
CSR – Corporate Social Responsibility
DNI – Negative Investment List
EBA – Everything but Arms
ECB – European Central Bank
EFTA - European Free Trade Association
EQI – Export Quality Infrastructure
ESCAP – UN Regional Economic and Social Commission for Asia and Pacific
ESIA – Environmental and Social Impact Assessment
EU – European Union
EUR – Euro
EV – Equivalent Variation
FAO – Food and Agricultural Organisation
FDI – Foreign Direct Investment
FLEGT – Forest Law Enforcement, Governance and Trade
FMSSFE – Network of Experts on Statistics on Free Movement of workers, Social Security coordination and Fraud and Error
FTA – Free Trade Agreement
GAPKI – Indonesian Association of Palm Oil Producers
GDP – Gross Domestic Product
GDPR – EU General Data Protection Regulation
GHG – Greenhouse Gas
GI – Geographical Indication
GIZ – Gesellschaft für Internationale Zusammenarbeit
GOI – Government of Indonesia
GPA – Agreement on Government Procurement
GSP – Generalised Scheme of Preferences
GTAP – Global Trade Analysis Project
GTF – Garments, Textiles and Footwear
GVC – Global Value Chain
HS – Harmonised System
IATP – Institute for Agriculture & Trade Policy
ICS – Investment Court System
ICT – Information and Communication Technologies

IDR – Indonesian Rupiah
ILAC – International Laboratory Accreditation Cooperation
ILO – International Labour Organisation
ILUC – Indirect Land Use Change
INSW – Indonesia National Single Window
IPN – International Production Network
IPR – Intellectual Property Rights
ISCC – International Sustainability and Carbon Certification
ISDS – Investor-State Dispute Settlement
ISIC - International Standard Industrial Classification
ISPO – Indonesian Sustainable Palm Oil
ITE – Information and Electronic Transactions Law
IUU – Illegal, Unreported and Unregulated (fishing)
JKN – Jaminan Kesehatan Nasional (national health insurance scheme)
KPAI – Indonesian Child Protection Commission
KPPU – Supervisory Commission on Business Competition
LCGC - Low Cost Green Car Regulation
LDCs – Least Developed Countries
LGBT – Lesbian, Gay, Bisexual, and Transgender
LKPP – Public Procurement of Goods and Services Agency of Indonesia
MA – Manpower Act
MEAs – Multilateral Environmental Agreements
MFN – Most Favoured Nation
MNCs – Multinational Corporations
MNP – Movement of Natural Persons
MoMT – Ministry of Manpower and Transmigration
MoP – Margin of Preference
MRF – Material Recovery Facilities
MRT – Mass Rapid Transit
MS – Member State
MSMEs – Micro, Small & Medium Enterprises
MUI – Muslim Authority of Indonesia
NAP – National Action Plan
NGO – Non- Governmental Organisation
NTB – Non-Tariff Barrier
NTM – Non-tariff related Measures
OECD - Organisation for Economic Co-operation and Development
OIE – World Organisation for Animal Health
PCA – Comprehensive Partnership and Cooperation Agreement
PRA – Pest Risk Assessments
PSRs – Product Specific Rules
PURs – Preference Utilisation Rates
R&D – Research & Development
RBC – Responsible Business Conduct
RED – Renewable Energy Directive
RoO – Rules of Origin
RSPO – Roundtable for Sustainable Palm Oil
SASPO – Southeast Asia Alliance for Sustainable Palm Oil
SDR – Special Drawing Rights
SEZ – Special Economic Zone
SIA – Sustainability Impact Assessment
SME – Small and Medium-size Enterprise
SNI – Indonesia National Standard
SOE – State-owned Enterprise
SPS – Sanitary and Phytosanitary measures
SVLK – Timber Legality Assurance Scheme
TBTs – Technical Barriers to Trade

TEPRA – Indonesia's Evaluation and Monitoring Committee for Budget Realisation
TFP – Total Factor Productivity
TRIPs – Agreement on Trade-related Aspects of Intellectual Property
TRQ – Tariff- Rate Quota
TRTA – Trade Related Technical Assistance
TVET – Technical and Vocational Education and Training
UNCTAD - United Nations Conference on Trade and Development
UNECE – United Nations Economic Commission on Europe
UNFCCC - United Nations Framework Convention on Climate Change
UNGPs – United Nations Guiding Principles on Business and Human Rights
USD – Us Dollar
VDP – Voluntary Declaration Program
VPA – Voluntary Partnership Agreement
WALHI – Indonesian Forum for the Environment
WTE – Waste-To-Energy
WTO – World Trade Organisation

1. Introduction

This section provides an overview of the draft final report. It does so through a more detailed outline of Sustainability Impact Assessments, including the approach and methodology used in the Indonesia SIA.

1.1. Reader's Guide

The Final Report is divided into 10 Chapters. Chapter 1 "Introduction and Overview" provides the wider context and purpose of the EU-Indonesia SIA, details the approach taken to EU-Indonesia SIA, as well as, details the methodology used in the SIA, focusing on explaining the baseline scenario and the liberalisation scenarios used in this SIA.

Chapter 2 "Overview of EU-Indonesia Relations" provides a brief review of the negotiations between the EU and Indonesia, including a more detailed outline of EU-Indonesia relations concerning economic, social, human rights and environmental domains.

Chapter 3 "Overall Economic Impacts" focuses on the economic impacts that the prospective EU-Indonesia FTA can be expected to have on Indonesia, the EU (including its outermost regions), and third countries including the Least Developed Countries (LDCs). This section also gives an overview of the expected overall sectoral economic impacts and includes possible impacts on Small and Medium-size Enterprises (SMEs). Furthermore, under the trade facilitation sub-section, the capacity of customs authorities to implement the Rules of Origin and the use of international standards are discussed.

Chapter 4 "Overall Social Impacts" focuses on the Study Team's findings on the expected social impacts of the prospective EU-Indonesia FTA. The topics discussed in this section include wages and employment, poverty and inequality, impact on labour conditions including CSR and RBC initiatives.

Chapter 5 "Overall Human Rights Impacts" discusses the Study Team's findings on the expected human rights impacts of the prospective EU-Indonesia FTA. The section also includes a discussion on evaluating human rights impacts in SIAs.

Chapter 6 "Overall Environmental Impacts" presents the Study Team's findings on the expected environmental impacts of the prospective EU-Indonesia FTA. The topics discussed in this section include greenhouse gas (GHG) and CO_2 emissions, water quality and resources, land use and soil quality, waste, waste management and marine litter as well as ecosystem services, biodiversity and protected areas.

Chapter 7 "Impacts Associated with Cross-cutting Issues" is dedicated to discussing the Study Team's findings on several cross-cutting issues that could be impacted by the prospective EU-Indonesia FTA, including Investments, Public Procurement, Intellectual Property Rights and Global Value Chains.

Chapter 8 "Detailed Sectoral Analysis" presents the Study Team's findings in specific sectors that were selected for deeper analysis of the potential impacts of the prospective EU-Indonesia FTA. The selected sectors are: vegetable oils and oilseeds, fisheries, energy and mining, clothing and apparel, motor vehicles and parts and financial services. For all these sectors a comprehensive economic, social, human rights and environmental impact assessment is given.

Chapter 9 "Consultations and Communications" provides a detailed overview of the stakeholder consultation process undertaken by the Study Team. It summarises the results of the Local Stakeholder Workshop and gives an overview of the stakeholder input received through interviews, meetings, and written contributions and an

online consultation process. Civil Society Dialogues and Inter-Service Steering Group meetings held in Brussels are also described.

Chapter 10 "Conclusions and Policy Recommendations" presents the main conclusions of the SIA regarding each of the four pillars, as well as, to the cross-cutting issues and the in-depth sectoral analysis. This section also outlines the policy recommendations that the Study Team is putting forward to maximise the potential positive impacts of the prospective FTA as well as to minimise its potential negative impacts.

Finally, the annexes provide several documents pertinent to this report. **Annex 1** provides a stakeholder list; **Annex 2** includes the economic analysis tables; **Annex 3** provides the links to the questionnaires used for stakeholder contributions; **Annex 4** provides the list of sectoral aggregations used in the CGE model and product concordance; **Annex 5** gives an overview of the ratification by Indonesia of the fundamental International Labour Organization Conventions; **Annex 6** gives an overview of international human rights treaties and their optional protocols signed, ratified or acceded by Indonesia and finally, **Annex 7** provides an overview of the ratification by the EU and Indonesia of key international environmental conventions.

1.2. Overview of Sustainability Impact Assessments

The Sustainability Impact Assessment in support of trade and investment negotiations between the EU and Indonesia assesses how the provisions under negotiation could impact economic, social, human rights and environmental issues in each partner. This also takes into account implications that may arise for the wider ASEAN region, and other relevant third countries – including in particular developing countries and least developed countries (LDCs), as well as Turkey (linked to the EU by a customs union agreement).

As such, the Sustainability Impact Assessment will take into account different negotiating scenarios. It identifies both opportunities and unintended consequences for sustainability of the provisions under negotiation. The SIA also includes recommendations to maximise the anticipated benefits of the FTA and to minimise the negative impacts it may have. Furthermore, it identifies potential hidden obstacles to the attainment of welfare-maximising objectives of the agreements and proposes ways of removing such obstacles. In effect, a balanced overview of positive and negative likely effects is presented to reflect the potential challenges that may arise from the FTA.

To achieve this, the SIA combines quantitative and qualitative analyses to provide a concrete understanding of economic, social, human rights and environmental indicators in the EU, Indonesia, and other relevant countries. It further supports this through a wide-ranging, comprehensive consultation process which seeks to engage all relevant stakeholders in both regions.

It is in this vein that DG Trade has contracted DEVELOPMENT Solutions Europe Ltd. to undertake a Sustainability Impact Assessment for FTA negotiations between Indonesia and the EU. There are three major goals of the SIA, which are defined as follows:

i. To present a robust analysis of the potential economic, social, human rights and environmental impacts that the trade agreement could have, in the EU,

in Indonesia, in developing countries and least developed countries, as well as in Turkey[2];

ii. To deploy a continuous and wide-ranging consultation process which ensures a high degree of transparency and the engagement of all relevant stakeholders inside and outside the EU in the conduct of the SIA; and

iii. To provide recommendations regarding positive impacts and best-practices, how to enhance these, and how to avoid or minimise any compromising and unintended negative effects.

As such, for the quantitative analysis, the SIA takes into account two different negotiating scenarios, described as conservative liberalization scenario and ambitious liberalization scenario, as explained in the methodology section below (see **Chapter 1.3**).

1.3. Methodology

As noted in the European Commission's *Handbook for Trade Sustainability Impact Assessment* (2nd edition)[3], the methodology for an *ex-ante* SIA seeking to estimate the economic, social, human rights and environmental impacts from a potential free trade agreement must adopt an integrated approach that combines quantitative and qualitative approaches.

For the quantitative analysis, the key tool of the SIA is a multi-region Computable General Equilibrium (CGE) model based on the framework of the Global Trade Analysis Project (GTAP) to quantitatively estimate the potential economic impacts of an FTA between the EU and Indonesia. The modelling work was carried out by the Chief-Economist and Trade Analysis Unit (G2) of DG TRADE. Interpretation, analysis and recommendations on the CGE model are handled by the Study Team. A CGE model represents the most effective quantitative approach for providing an *ex-ante* assessment of the impact of a potential FTA. The model takes a holistic view of the global economy and can accurately reflect the impacts from a bilateral agreement between the EU and Indonesia through the incorporation of economy-wide efficiency and distributional impacts together with resource constraints and sectoral interlinkages. Additionally, the results of the CGE model provide inputs for the social, human rights and environmental impact assessments. The CGE model indicators that are explored include welfare, gross domestic product (GDP), trade flows (imports and outputs), sectoral output, consumer prices, wages, sectoral employment, reallocation of jobs and CO_2.

This section highlights the methodological approach undertaken in this SIA, specifically with reference to: (i) the baseline and the liberalisation scenarios; (ii) the economic impact assessment; (iii) the social impact assessment; (iv) the human rights impact assessment and (v) the environmental impact assessment.

(i) Baseline and liberalisation scenarios

Ex ante analyses that assess the impacts associated with a policy intervention require that the resulting policy be adequately articulated to realistically capture the scope of potential changes that may arise. This is the objective of the SIA's liberalisation scenarios. It is essential, however, that these liberalisation scenarios be set against a benchmark that reflects an outcome envisaged as likely to take

[2] Turkey is linked to the European Union by a customs union agreement.
[3] European Commission, 2016, Handbook for Trade Sustainability Impact Assessment 2nd edition, accessed on 29 March 2018 via http://trade.ec.europa.eu/doclib/docs/2016/april/tradoc_154464.PDF

place in the absence of the policy intervention. This is the role of the baseline scenario. In this section, the methodological rationale for these scenarios is explained, followed by a table that highlights the key elements of the scenarios employed in this study.

Baseline scenario

The baseline scenario serves as the benchmark against which impacts expected to arise from the EU-Indonesia FTA are measured, making it one of the crucial methodological steps in the SIA. However, since the impacts of the FTA are being estimated *ex ante* (i.e., before the conclusion, signing and implementation of the FTA), it is not appropriate for the baseline to simply reflect the status quo. Instead, it is necessary that the baseline also represent likely future outcomes by taking into account: (i) projected developments across key indicators (e.g., growth in in GDP and population); (ii) the evolution of ongoing and expected trends in key socio-economic areas (e.g., ongoing changes in global value chains or technologically-induced social and economic developments); and (iii) the impacts likely to arise from international agreements that have not yet been fully implemented (e.g., the Trans-Pacific Partnership). Given the need for forecasting into the future, it is further necessary that the baseline be extended to an appropriate time horizon that matches the perceived timeline needed for the impacts of the FTA to take effect.

As a rule of thumb, decisions on what to include within the baseline should reflect the methodological principle of parsimony so that only those developments seen as relevant to the impact assessment are included. Justification for their inclusion is to be noted with the assumptions explicitly identified. Sensitivity to these assumptions as well as the degree of uncertainty should be considered to illuminate the extent to which the findings are contingent on the scenario's specifications.

Within this SIA, the foundational baseline scenario is derived from the study's CGE model. Since the model's quantitative estimates play such an important role in informing all areas of the assessment, this baseline serves as the departure point for those utilised in other areas of the study. However, because the CGE model does not incorporate all elements potentially relevant to the four pillars of sustainability, additions and amendments are made where necessary. The assumptions and their potential sensitivities are also discussed in the sections in which they are employed.

Liberalisation scenarios

Whereas the baseline scenario reflects the estimated outcome in the absence of an FTA between the EU and Indonesia, the liberalisation scenarios represent the potential outcome of an agreement and serve as the basis for assessing the impacts that are likely to arise as a result. Specifically, the liberalisation scenarios seek to operationalise the potential contents of the agreement by making reasonable assumptions on the ultimate FTA's provisions with respect to tariff reduction, removal of non-tariff barriers, and changes in the rules governing bilateral trade in services (and in their enforcement).

With regard to market access, the SIA has aimed to construct two potential outcomes by altering the perceived degree of liberalisation to provide information on the sensitivity of certain outcomes to changes in the agreement's contents. The two scenarios are distinguished by the labels of "conservative" and "ambitious", respectively reflecting the overall degree of liberalisation assumed (noting however that there is no perfectly objective metric for determining when a certain degree of liberalisation should be considered "conservative" or "ambitious"). Regardless of the

ultimate designation, scenarios in both cases are formulated to reflect potentially *realistic* outcomes to produce more informative assessments and to help assist policymakers engaged in negotiations.

However, when analysing impacts associated with the "rules" elements of the FTA (as opposed to liberalisation in tariffs and NTBs), reference is made only to a "liberalisation scenario", as the focus of the analysis here is to distinguish between a baseline situation without an FTA and a situation with an FTA. In general, the approach in these instances has been to adopt a scenario perceived as being most likely to occur.

In many cases throughout the draft final Report, the assessment of impacts has been based neither on a singular outcome of the FTA nor by making a dichotomous comparison of two potential outcomes of FTAs. Instead, analysis in these cases has been approached by taking a single component/issue and assessing how various changes in elements of the FTA may alter potential outcomes. For example, rather than examining a single outcome of the FTA's chapter on public procurement or two wholly different chapters, it has been determined that there is greater analytic value in comparing differences in specific components that may arise within the chapter (i.e., by looking at the substantive differences that may arise by liberalising procurements at the national versus subnational level, on the one hand, and by exploring differences that may arise through liberalisation of different procurement value thresholds at the same level).

As with the baseline, the liberalisation scenarios used in this study take those formulated in the CGE model as their departure point. However, since these scenarios may omit impactful elements of potential liberalisation, amendments or additions to these have been made where relevant. Importantly, **since the CGE model's estimates are projected to the year 2032, the baseline and liberalisation scenarios used throughout this study follow this horizon unless otherwise stated.**

As a final point, it should be noted that while the Study Team has consulted with the European Commission officials in the process of formulating these scenarios, all scenarios other than those of the CGE model have ultimately been determined by the Study Team and do not necessarily reflect the official negotiating positions of the European Commission.

(ii) Economic impact assessment

Quantitative approach

The estimates for CGE indicators are presented in terms of expected changes relative to the model's pre-determined baseline scenario with a projected timeline horizon of 2032. All FTAs signed up to 2011 as well as a number of FTAs completed since 2011 are included in the baseline scenario. Results are generated separately for both an "ambitious" and "conservative" liberalisation scenario. The specific assumptions used in these scenarios incorporate varying degrees of assumed liberalisation for tariffs on agricultural products, tariff rate quotas and the removal of non-tariff barriers; while employing the same assumptions with respect to the removal of tariffs on non-agricultural goods and of restrictions to trade in services. The model employed for the SIA uses the version 9 database of GTAP, which includes 140 countries/regions and 57 disaggregated sectors. These are aggregated into 20 regions/countries and 32 sectors within the model.

Qualitative approach

To complement the quantitative analysis, various qualitative approaches are also employed. This will also help address some limitations inherent in the CGE model. The higher level of sectoral and regional aggregation used in the GTAP database requires qualitative approaches to be used to complement the formal modelling to better understand the nature of the impact on various sub-sectors and regions (e.g. in the case of developing countries). This is particularly relevant with respect to non-tariff barriers impacting trade in agricultural products since this study's CGE model is not able to provide robust estimates of these barriers.

A review of the barriers – tariff and non-tariff – affecting bilateral trade between the EU and Indonesia is carried out by the Study Team. This review is of relevance to non-tariff barriers and considers, *inter alia*, SPS measures, technical regulations, local content requirements, export restrictions (including export taxes, licences, prohibitions and other restrictions), customs procedures, conformity assessments and certification/registration requirements, import licensing, standard compliance, and intellectual property protection for trade in goods. With respect to services, additional consideration is given to, *inter alia*, barriers to labour mobility and mutual recognition of qualifications. Non-tariff barriers that are reviewed concerning horizontal issues include, *inter alia*, investment barriers, barriers to access to public procurement, competition policy (including subsidies), special conditions or privileges given to or by State-owned Enterprises (SOEs) and restrictions on e-commerce. This review, along with an assessment of the potential scope of liberalisation under an EU-Indonesia FTA, feeds into the construction of the two liberalisation scenarios while highlighting the areas that are most likely to be impacted by an agreement.

The qualitative methods applied depend on the sector under consideration and are determined independently for each sector selected for in-depth analysis. Where required, case studies are used. This also include the potential impacts on the EUs outermost regions, notably on industries and sensitive product of importance to the outermost regions, as well as possible market opportunities that could arise through the prospective FTA.

(iii) Social impact assessment

Quantitative approach

The primary basis for quantitatively assessing social impacts from an EU-Indonesia FTA is derived directly from estimates provided by the CGE model. The model's ability to provide estimates on wages and labour costs – both for skilled and unskilled labour – as well as with respect to the anticipated reallocation of jobs and labour demand across economic sectors is used to inform the expected overall and sector specific social impacts. A quantitative estimation of the overall impact on job creation and for specific sectors, as well as the expected result on professions and skill levels is carried out.

Qualitative approach

The EU28 is treated as one coherent block due to its relative size, dwarfing the Indonesia economy in comparison. Therefore, it is anticipated that the adjustment costs in Indonesia may be greater compared to those in the EU28. A degree of ambiguity currently remains in the literature regarding the exact extent to which FTAs influence social factors in developing countries. This is since a shifting balance of economic activity could contribute to improved wages in some sectors, while generating greater competitive pressures in others. Further, all new generation EU FTAs include legally binding provisions on social elements – on international labour

laws, standards and conditions among others.[4] [5] [6] Bearing this mind, the Study Team includes regulatory analysis to highlight the potential social impact of the FTA.

An assessment to examine the extent to which the FTA may impact the effective implementation of the ILO Core Labour Standards and fundamental conventions as well as the realisation of other strategic objectives of the ILO Decent Work Agenda is also carried out. The potential for the FTA to promote advancement of internationally agreed principles and guidelines on Corporate Social Responsibility (CSR) and Responsible Business Conduct (RBC) is also considered.

To achieve these objectives, a comprehensive screening and scoping exercise is undertaken. This exercise highlights: (i) the relevant social issues[7] in Indonesia and, to a lesser extent, the EU; (ii) the components of a potential FTA that may enhance or exacerbate these existing social issues; and (iii) the particular groups most likely to be impacted by the agreement (e.g. women, low income, youths, people with disabilities, ethnic minorities, indigenous peoples, skilled & unskilled workers and older or less educated consumers among others). Stakeholder consultations also play an important role in this process.

(iv) Human rights impact assessment

In line with the European Commission's *Guidelines on the analysis of human rights impacts in impact assessments for trade-related policy initiatives*, the first step in assessing the impacts on human rights from an EU-Indonesia FTA is conducting a screening and scoping exercise. The goal of this exercise is to identify the policy measures that are most likely to impact human rights and the specific rights and groups that are most likely to be impacted. Similar to the assessment of social impacts, the element of proportionality combined with the status of Indonesia as a developing country steers anticipation towards greater adjustment costs in the Indonesia compared to the EU28 for human rights. This is increased further by the commitment of the European Union to integrate human rights considerations in its FTA negotiations.

Within this exercise, the list of identified rights is classified according to the criteria of "direct v. indirect" and "major v. minor", while focusing on the existing regulatory framework in Indonesia. Stakeholder consultations are also important in identifying potential impacts and the groups that may be more affected – positively or negatively – by the FTA.

Since an impact on human rights is likely to extend into several sectors and areas, the analyses on the other three pillars of sustainability will also be considered in informing the assessment. Apart from the impact of market access components of the FTA, the SIA looks at the impact from rules and standards that are included in the FTA for the analysis to be comprehensive.

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[4] The International Labour Organisation, 2015, Social Dimensions of Free Trade Agreements, accessed 14 May 2018 via: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_228965.pdf

[5] The International Labour Organisation, 2016, Assessment of Labour Provisions in Trade and Investment Arrangements, accessed 25 May 2018 via: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_498944.pdf

[6] The International Labour Organisation, 2017, Handbook on Assessment of Labour Provisions in Trade and Investment Arrangements, accessed 25 May 2018 via: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_564702.pdf

[7] Please refer to section 3.1. of the Inception report for a concrete understanding of the relevant social issues addressed.

Since quantification of the impacts associated with human rights are often difficult, the primary analysis is qualitative in nature and aided by the inclusion of case studies, where relevant. However, quantitative results from the formal economic modelling and detailed sector analyses is used where relevant, with additional data from relevant indicators employed where possible.

(v) Environmental impact assessment

Quantitative approach
The quantitative analysis utilises estimates from the CGE model on the expected changes in carbon emissions resulting from the agreement as well as those on changes in sectoral output. Environmental effects are, in this regard, derived from estimated changes in production and trade arising from the agreement.

Qualitative approach
A screening and scoping exercise is undertaken to fulfil four objectives: (i) identification of the key environmental issues relevant to sustainability currently present in Indonesia and in the EU; (ii) the regions and sectors most impacted by these issues; (iii) the components of a potential agreement that are likely to produce the greatest impact – positively and negatively – on these issues, regions and sectors; and (iv) a review of the environmental regulatory framework in Indonesia and in the EU.

Taking the screening and scoping exercise as a reference, the predicted changes in sectoral output derived from the CGE model are used to qualitatively assess the potential environmental impacts with respect to scale, structural, technological and product effects that may arise because of the agreement. In the case of scale effects, the quantitative estimates related to economic growth are used to determine the impact on resource use and biodiversity, as well as the potential for increased access to resources that may contribute to environmental protection. Changes in sectoral output will be instrumental in performing a qualitative assessment of potential structural and production effects through changes in production and consumption patterns, and the use of specific goods and services that may rise because of an agreement.

A qualitative assessment is also made through the examination of the potential interaction between the FTA and the Multilateral Environmental Agreements (MEAs) to which either Indonesia or the EU are a signatory. The study utilises qualitative methods for assessing the extent to which a potential agreement can contribute to greening the economy, resource efficiency objectives and toward the promotion of sustainable consumption and production. Where relevant, case studies are employed.

In addition to conducting environmental impact assessments for the sectors selected for in-depth analysis, the SIA also assesses the emissions related to the most energy-intensive sectors and for primary energy producing sectors. An analysis of the environmental impacts from the potential increase in trade-related transportation services is conducted.

2. Overview of EU-Indonesia Relations

2.1. Overview of Recent Negotiations

In 2007 the importance for Southeast Asia as a trading partner to the European Union was highlighted when the FTA negotiations between the two regions began, with Indonesia as Party to the negotiations as an ASEAN member. As the negotiations between ASEAN and the EU were paused in 2009, bilateral negotiations started between the EU and individual ASEAN members – namely: Singapore (2010), Malaysia (2010), Viet Nam (2012), Thailand (2013), the Philippines (2015) and Indonesia (2016).

Even though a SIA was conducted in 2008 on the EU-ASEAN FTA, this does not entail a comprehensive assessment of the potential economic, social, environmental, and human rights impact on Indonesia. That is also the case because of the former SIA being not up-to-date, with regard to both the economic context and the EC practice and policy on SIAs. In this context, the EC has commissioned the Trade SIA in support of the EU-Indonesia FTA.

The EU and Indonesia signed a Comprehensive Partnership and Cooperation Agreement (PCA) in November 2009, which then entered into force on 1 May 2014.[8] Indonesia was the first ASEAN member to sign a PCA with the EU. It replaced the 1980 European Community – ASEAN Cooperation Agreement. The PCA provides the basis for a comprehensive dialogue on a wide spectrum of issues, including human rights, political dialogue and trade and investment. Furthermore, it serves as an instrument to jointly address issues such as terrorism, migration and proliferation of weapons of mass destruction.[9] It should also be noted that Indonesia currently benefits from preferential market access to the EU in the form of duty reduction under the standard GSP arrangement. It has also concluded a FLEGT Voluntary Partnership Agreement (VPA) with the EU to combat illegal logging and promote trade in legal timber and timber products.

Negotiations of an EU-Indonesia FTA were launched on 18 July 2016. The sixth round of talks was held in Palembang, Indonesia from 15 to 19 October 2018, and the seventh round of negotiations from 11 to 15 March 2019[10]. The FTA intends to develop the trade and investment aspects of the overall relationship between the EU and Indonesia, which is based on the PCA. The FTA aims to reduce tariff and non-tariff barriers to trade in agricultural products, manufactured goods and services. This would provide important opportunities for trade and FDI between the countries, while supporting sustainable development objectives.

2.2. Current Economic, Social, Human Rights and Environmental Relationship between the EU and Indonesia

This section discusses in greater detail the economic, social, human rights and environmental relationship between the EU and Indonesia. It considers previous efforts of cooperation that are of relevance for the prospective FTA. Please note

[8] The European External Action Service, 2009, Framework Agreement on Comprehensive Partnership and cooperation between the European Community and its Member States, of the one part, and the Republic of Indonesia, of the other part, available via: https://eeas.europa.eu/sites/eeas/files/eu_idnpca_en.pdf

[9] The European External Action Service, The EU-Indonesia Partnership and Cooperation Agreement Enters Into Force, available via: https://eeas.europa.eu/statements/docs/2014/140501_01_en.pdf

[10] See dedicated webpage of the European Union Directorate General for Trade http://trade.ec.europa.eu/doclib/press/index.cfm?id=1620

that the full extent of collaborative efforts between the EU and Indonesia cannot be captured in this section alone, and therefore those mentioned are not exhaustive.

2.2.1. Economic relationship

In 2017, Indonesia was the fifth largest trading partner of the EU in ASEAN and the 29th largest trading partner in the world. In return, the EU was the fourth largest trading partner of Indonesia.[11] In the same year, exports from the EU to Indonesia reached more than €10 billion, while imports amounted to €16.7 billion.[12] These exports to Indonesia mainly consisted of machinery and appliances (32 per cent), transport equipment (17 per cent) and products of the chemical or allied industries (13.1 per cent). The major imports of the EU from Indonesia were animal or vegetable fats (19.4 per cent), machinery and appliances (13.6 per cent) and footwear, hats and other headgear (10.3 per cent).[13]

In 2016, EU exports of services to Indonesia comprised mainly of transport services, tourism and travel services, as well as other business services. Furthermore, European companies have been increasing their investments in Indonesia, especially in the chemical and pharmaceutical industry; the transportation, storage and communication industry; the food and beverage industry; the mining industry; the agricultural industry; as well as the hotel and restaurant industry. In terms of foreign direct investments (FDI), the EU accounted for 9 per cent of FDI inflows in 2016, making it the fourth largest investment source in that year.[14] The total value of these investments in 2016 was estimated at over €2.3 billion, with only Singapore, Japan and China accounting for a larger share in FDI.

With its 15th, 16th and 17th Economic Policy Packages Indonesia has created the start of a more favourable trade and investment environment. Main points from the 15th package are the strengthening of transportation insurances and the amending of the list of prohibited and restricted goods. The 16th Economic Policy Package includes provisions regarding the facilitation of foreign business – speeding up the issuance of business permits among others – specifically in relation to special economic zones and the creation of a single-submission system for the application of licenses.[15] The 17th Economic Package – launched in January 2018 – directly target imports and exports by the removal of previously required Ministerial recommendation and sponsor letters for the import of raw material.[16] All three Packages intend to improve the country's ease of doing business for foreign firms. As mentioned earlier the EU and Indonesia have been cooperating for quite some time and in November 2009, they signed the Comprehensive Partnership and Cooperation Agreement.

2.2.2. Social and human rights relationship

[11] The European Union, Indonesia, available at: http://ec.europa.eu/trade/policy/countries-and-regions/countries/indonesia/
[12] European Commission DG TRADE, European Union, Trade in goods with Indonesia, available via http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113391.pdf
[13] Ibid.
[14] European Union External Action Service, EU-Indonesia Relations, accessed 15 March 2018 via: https://eeas.europa.eu/headquarters/headQuarters-homepage/4009/eu-indonesia-relations_en
[15] TANG, W. 2017, Government launches 16th economic package to boost investment, *The Jakarta Post*, accessed 21 May 2018 via: http://www.thejakartapost.com/news/2017/08/31/govt-launches-16th-economic-package-to-boost-investment.html
[16] NORMALA, A, 2018, Government to issue 17th Economic Policy Package to Quicken Import and Export Processes, *Jakarta Globe*, accessed 21 May 2018 via: http://jakartaglobe.id/business/govt-issue-economic-policy-package-quicken-import-export-processes/

The EU and Indonesia also have a history of cooperation in the fields of social development and human rights dialogue. In addition to both being committed to the ILO agenda, the social relationship between the two is best seen in education, health and civil society. The EU has a history of supporting education in Indonesia through the Education Sector Support Programme, the Analytical Capacity and Development Partnership and the Minimum Service Standards Capacity Development Program. Around 9000 Indonesian students are currently studying in Europe.[17] In the case of health-related issues, the EU has contributed by siding with Indonesia's civil society partners in combating several diseases.[18] For civil society organisations in Indonesia there has been a history of cooperation with the EU, including through the EU Delegation in the country. The EU's approach in recent years has been based on the Conclusions adopted by the Council of the European Union's on *The roots of Democracy and sustainable development: Europe's engagement with Civil Society in external relations*.[19] In 2015 the EU Roadmap for Engagement with civil society in Indonesia 2015-2017 was formulated to improve and strengthen the dialogue between the EU and Indonesia.[20] A key element for the cooperation between the two sides on human rights is the annual bilateral Human Rights Dialogue which was launched in 2010. Here Indonesia and the EU discuss the latest developments and challenges in the field of human rights around the world.

2.2.3. Environmental relationship

Sustainability plays a crucial role in the EU's relationship with Indonesia. The islands of Indonesia house one of the most diverse ranges of terrestrial and marine wildlife on earth, supporting highly complex ecosystems. To promote sustainable forest management and support trade in legal timber, the EU and Indonesia have concluded a Voluntary Partnership Agreement in May 2014 on Forest Law Enforcement, Governance and Trade (FLEGT) establishing a FLEGT licensing scheme to ensure that only legal timber and timber products are exported to the EU. The FLEGT licensing scheme is based on the Indonesian Timber Legality Assurance Scheme (SVLK).[21] The Scheme became operational on 15 November 2016.

[17] The European Union, Indonesia, available at: http://ec.europa.eu/trade/policy/countries-and-regions/countries/indonesia/
[18] Ibid.
[19] Council of Europe, 2012, Council conclusions on: The roots of Democracy and sustainable development: Europe's engagement with Civil Society in external relations, available via http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/foraff/132870.pdf
[20] European External Action Service, EU Roadmap for engagement with civil society in Indonesia 2015-2017, available via http://eeas.europa.eu/sites/eeas/files/20150305_01_en.pdf
[21] The European Union, Indonesia, available at: http://ec.europa.eu/trade/policy/countries-and-regions/countries/indonesia/

3. Overall Economic Impacts

Overall, the results of the CGE modelling exercise indicate that the EU-Indonesia FTA would generate positive gains for both the EU and Indonesia across all indicators. While this outcome is expected to arise both under an agreement that attains a "conservative" reduction in tariff and non-tariff barriers to trade and one that attains an "ambitious" reduction, it is estimated that a more ambitious scenario will generate the greatest gains for each side. The prospective FTA is expected to increase the welfare and GDP by 2032 both in Indonesia and in the EU. For Indonesia, the expected gains are more pronounced.

The estimates suggest that the reduction in tariff and non-tariff barriers under the prospective FTA would lead to substantial increases in the value of goods and services traded bilaterally between the EU and Indonesia. Structurally, the agreement is expected to promote a reallocation of resources in each economy over the long-term, leading to changes in output, shifts in overall trade and, potentially, realignment and intensification of certain global production chains.

The agreement is expected to result in some trade diversion from third countries, especially in the sectors of rice, vegetable oils and oilseeds, forestry and wood products, processed food, textiles, wearing apparel and leather products. However, these impacts would not be significant.

With regard to SMEs, there would be opportunities for both European and Indonesian SMEs to better integrate into global value chains under the prospective FTA. However, lack of familiarity with domestic regulations and import-export procedures as well as of awareness on opportunities in each partner's market could potentially diminish the expected positive impacts from tariff reductions under the prospective FTA for both European and Indonesian SMEs.

Baseline and liberalisation scenarios

The following assessment for macroeconomic and sectoral impacts associated with the potential EU-Indonesia FTA is based primarily on estimates of the study's CGE modelling exercise, undertaken by the Chief Economist Unit of DG TRADE. The results provided in the accompanying tables include

- 2 scenarios of potential liberalisation under an EU-Indonesia FTA.

The two scenarios consist of both a "conservative" and an "ambitious" liberalisation scenario that, as the names suggest, use varying degrees of liberalisation with respect to the removal of tariff and non-tariff barriers to trade. The key differences across these two scenarios are listed in **Table 1** While tariff concessions are fully symmetric, the reduction of non-tariff barriers for goods and services is assumed to be stronger for EU exports to Indonesia than vice-versa.

Table 1 Key Differences in the CGE Modelling Scenarios

Tariffs on agricultural goods	Tariffs on non-agricultural goods	Non-tariff barriers	Services liberalisation
Full removal of tariffs in in the ambitious scenario and less than full removal of tariffs	Same across both scenarios	Greater removal of NTBs on non-agricultural goods in the ambitious scenario. No	Same across both scenarios

in the conservative scenario	modelling of agricultural NTBs

All reported results represent the estimated outcome from the agreement in the year 2032 and are based on data from 2011, which serves as the model's reference year. As such, unless otherwise indicated, all monetary figures are reported in constant 2011 euros (using the official ECB exchange rate of 1.392 USD/EUR for 2011 to convert the model's estimates which use data reported in 2011 US dollars). Importantly, these figures should be interpreted as the outcome of the agreement in comparison to the "baseline scenario", which projects outcomes across these key indicators in the absence of an agreement between the EU and Indonesia. Key assumptions in this baseline scenario are as follows:

- Projected growth in macroeconomic variables (GDP, sectoral TFP, population and skilled and unskilled labour force) according to World Bank and UN projections
- Implementation of all FTAs concluded prior to 2011 as well as the following FTAs and EPAs: EU-Korea, Canada-EU, EU-Singapore, EU-Vietnam, Pakistan-Indonesia, Malaysia-Chile, Malaysia-Australia, Malaysia-Turkey, Trans-Pacific Partnership, EFTA-Philippines, EU-Western Africa EPA and EU-Southern African Development Community EPA.

3.1. Macroeconomic Impacts

This section assesses the potential macroeconomic impacts from the EU-Indonesia FTA as estimated by the study's CGE model with regard to welfare, GDP and trade. Overall, the results of the CGE modelling exercise estimate that the agreement will generate gains for both the EU and Indonesia across each of these indicators. While this outcome is expected to arise under both an agreement that attains a "conservative" reduction in tariff and non-tariff barriers to trade and one that attains an "ambitious" reduction, it is estimated that a more ambitious scenario will generate the greatest gains for each side.

The expected gains for the EU are relatively minor, corresponding to an increase of between €2 billion to €2.44 billion in welfare and €2.46 billion to €3.09 billion in GDP by 2032. While reduction in tariff and non-tariff barriers in the EU-Indonesia FTA is expected to lead to significant increases in the value of goods and services traded bilaterally, the overall increase in global exports from the EU would likely also be minimal in relative terms. However, given the EU's status as the world's largest economy, small percentage changes can result in notable changes in nominal values. As such, it is worth noting that the agreement is projected to lead to an overall increase in EU exports ranging from €5 billion to €5.89 billion. This expansion in overall exports arising from the agreement would largely be expected to result from the creation of new trade opportunities emerging from improved access to the Indonesian market.

As discussed in the sectoral analysis, these gains for the EU may be further affected by (i) the extent to which the agreement leads to a reduction in non-tariff barriers (NTBs), as these appear to be heavily influencing the expected impact on non-agricultural products; (ii) the accuracy with which the model is measuring the costs associated with these NTBs; (iii) the agreement's rules of origin; (iv) the preference utilisation rates that arise; (v) the accuracy with which the model is properly able to measure the impact on services; and (vi) the agreement's impact on investment.

For Indonesia, the expected gains are more pronounced in relative terms, with the modelling exercise predicting welfare to increase €2.8 billion to €3.23 billion and GDP by €4.56 billion to €5.19 billion. Again, improvements in access to the EU market would likely lead to substantial increases in the value of goods and services traded bilaterally, with moderate projected increases in global exports. As in the case of the EU, the agreement would be expected to create new trade opportunities for Indonesia that would not be expected to arise in its absence but would also lead to some degree of diversion of trade away from third countries. Similar caveats to those mentioned above for impacts on the EU exist with respect to NTBs, preference utilisation rates, services and investment.

Welfare

Within the CGE modelling framework used in this study, welfare is measured by equivalent variations (EVs) in millions of US dollars (converted here into 2011 euros).[22] In effect, this measurement can be interpreted as the change in household income at constant prices that is projected to arise directly from the FTA in the year 2032 in comparison to a counterfactual situation where no such agreement is reached.

Table 2 reports the estimated projections for welfare for both the EU and Indonesia in the "conservative" and "ambitious" liberalisation scenarios.

For the EU, the CGE model estimates that the EU-Indonesian FTA would directly lead to increases in welfare of approximately €2.01 billion by 2032 under the conservative scenario and €2.44 billion under the ambitious scenario.

For Indonesia, however, the projected gains are more pronounced, with the model estimating that welfare gains under the EU-Indonesia FTA would reach €2.80 billion by 2032 under the conservative scenario and €3.23 billion under the ambitious scenario.

Gross domestic product

Projections of changes to GDP mirror estimates for welfare, with both partners expected to experience gains across all modelling scenarios (**Table 2**). Again, these gains are expected to be more significant for Indonesia in both relative and absolute terms.

Table 2 Modelling Estimates for GDP and Welfare

	EU		Indonesia	
	Conservative	Ambitious	Conservative	Ambitious
Welfare (bil. €)	2.01	2.44	2.80	3.23
GDP (bil. €)	2.46	3.09	4.56	5.19

Source: DG Trade CGE Model; study team calculations

Trade

As with welfare and GDP, the modelling results suggest that the EU-Indonesia FTA would stimulate exports both bilaterally and overall for both sides. ***For the EU***, the model suggests that the conservative liberalisation scenario would lead to an increase in overall exports of €5.03 billion, while the ambitious scenario would

[22] As one of the most common measurements of welfare, EV reflects the changes in welfare associated with a price change. It attempts to capture the amount, in current prices (i.e., 2011), that a consumer would be willing to pay in monetary terms to avoid a price increase. If

increase exports by €5.89 billion. While the agreement is estimated to lead to lower percentage increases in overall EU imports, it nevertheless finds that the absolute value would surpass that of exports in both scenarios (€5.53 billion and €6.32 billion, respectively), leading to a slight increase in the EU's global trade deficit (**Table 3**).

Bilaterally, the FTA is projected to lead to substantial increases in the relative level of trade between the EU and Indonesia. Under the conservative agreement, the model projects EU exports to Indonesia to increase by €6.32 billion (35.8 per cent) with the agreement expected to lead to an increase of €7.76 billion (44 per cent). As this is larger than the overall increase in exports, the model therefore suggests that the agreement would have the effect of not only generating new trade that might not occur in its absence but would also lead to trade diversion away from third countries. Such an outcome also pertains to EU imports.

For Indonesia, the CGE model estimates that the agreement with the EU would have a larger relative impact on overall exports, but a smaller absolute impact. Specifically, the model projects Indonesian global exports to increase €5.03 billion under the conservative agreement and almost €5.60 billion under the ambitious agreement. Similar increases would be expected for Indonesia imports, with the country's trade balance expected to be unaffected as absolute increases are nearly identical in value to expected gains in exports (**Table 3**).

In relative terms, while Indonesian bilateral exports to the EU are expected to grow less significantly than imports (17.3 to 17.7 percent), the absolute value of exports to the EU are expected to surpass imports (€6.75 billion) under the conservative scenario, leading to slight improvements in its bilateral trade balance. However, an agreement embodying a more ambitious degree of liberalisation is estimated to produce larger increases in the value of EU exports, allowing the EU to improve its trade balance with Indonesia. This highlights the greater degree of gains for the EU derived from the removal of non-tariff barriers on non-agricultural goods present in the Indonesian market. As with the EU, the fact that bilateral trade is estimated to increase more than Indonesia's overall trade suggests that the agreement will lead to trade diversion with third countries in addition to the creation of new trade.

Table 3: Modelling Estimates for Bilateral Trade

	EU			
	Conservative		**Ambitious**	
	%	**Bil. €**	**%**	**Bil. €**
Exports to Indonesia	35.8	6.32	44.0	7.76
Imports from Indonesia	17.3	6.75	17.7	6.97
Change in trade balance with Indonesia		-0.43		0.79
Global exports	0.17	5.03	0.20	5.89
Global imports (CIF)	0.14	5.53	0.15	6.32
Change in global trade balance		-0.50		-0.43
	Indonesia			
	Conservative		**Ambitious**	
	%	**Bil. €**	**%**	**Bil. €**
Exports to the EU	17.3	6.75	17.7	6.97

Imports from the EU	35.8	6.32	44.0	7.76
Change in trade balance with the EU		0.43		-0.79
Global exports	1.40	5.03	1.55	5.60
Global imports (CIF)	2.00	4.96	2.25	5.60
Change in global trade balance		0.07		0.00

Source: CGE Model

3.2. Sectorial Impacts

The following section provides an assessment of the results derived from the study's CGE model with respect to the sectoral economic impacts expected to arise from the EU-Indonesia FTA. The analysis is divided into three sub-sections – (i) agricultural products, (ii) industrial products, and (iii) services – with each exploring the potential economic impacts related to sectoral trade and output from a reduction of tariff and non-tariff barriers under the agreement. The section is complemented by the detailed assessments for the six sectors selected for in-depth analysis (oilseeds and vegetable oils, fisheries, energy and mining, wearing apparel, motor vehicles and financial services), found in **Chapter 8**.

Summary

The CGE modelling exercise highlights several informative sectoral economic outcomes that may be expected to arise in the EU and Indonesia as a result of a bilateral FTA, further expanding on the macroeconomic results presented in the previous section. Overall, the estimates suggest that the reduction in tariff and non-tariff barriers under the FTA would lead to overall substantial increases in the value of goods and services traded bilaterally between the EU and Indonesia as explained in the analysis below.[23] Structurally, the agreement is further expected to promote a reallocation of resources in each economy over the long-term in response to the agreement, leading to changes in output, shifts in overall trade and, potentially, realignment and intensification of certain global production chains.

For the EU, the model's estimates generally project minor reductions in agricultural output, with the agreement instead leading to expansion of production in services and, in particular, manufacturing. Such an outcome is estimated to emerge under both the conservative and the ambitious scenarios but intensifies under an agreement that obtains the most ambitious removal of tariff and non-tariff barriers. Overall, the greatest gains for the EU appear to be in manufacturing, with notable increases projected for exports – and in most case output – of sectors such as motor vehicles, machinery, paper and paper products, and chemical, rubber and plastic products. The gains experienced in these sectors would likely emerge as a result of improvements in market access, leading to the creation of new trade opportunities that would not be expected to arise in the absence of the agreement. In contrast, the model estimates that the EU would experience notable decreases in its domestic output of textiles, wearing apparel and leather and leather products (e.g., footwear) as a result of the agreement. While exports of these products would increase overall, these gains would be significantly smaller than expected increases in imports. Bilateral imports from Indonesia of these products are

[23] Please note that in the CGE model used does not take into account NTB reductions for agri-products.

expected to grow significantly, suggesting that the agreement will lead to notable degrees of integration in the EU's global supply chain for textiles, apparel and footwear. As the estimated increases in overall imports will be significantly lower than those from Indonesia, it is expected that the EU would divert global trade in such products away from third countries.

While the model, assuming the full liberalisation of these sectors under the ambitious scenario, estimates that the EU's dairy and alcoholic beverages sectors[24] may also expand output and significantly increase exports, virtually all other agricultural sectors are projected to marginally contract.[25] With respect to services, while the estimated overall effect, while positive, is limited, it is almost certainly the case that the model underestimates the potential impact that may arise under the agreement.

Given its much smaller size, the model estimates that the agreement will have a potentially greater impact on ***Indonesia*** with respect to relative projected changes in output and trade. In general, the reduction in tariff is expected to produce limited impacts for Indonesia's agricultural sector. Overall, agricultural output is projected to expand as a result of the agreement, though these increases are marginal across most sectors – while for the vegetable oils and oilseeds sector the model does not predict an expansion of output, but rather a slight decrease. No expansion of output is projected in the vegetable oils and oilseeds sector, as the output of the sector would slightly decrease. In absolute terms, the most notable effects are estimated to arise through increased exports of processed foods and vegetable oils and oilseeds (notably palm oil).

Similar to the EU, overall output in industrial products is estimated to increase as a result of the agreement. This potential expansion is overwhelmingly concentrated in a handful of sectors with exports and output of most industrial subsectors either decreasing or growing disproportionately to the increase in the absolute value of imports. Instead, the reduction in tariff and non-tariff barriers under the agreement is expected to lead to a strong reallocation of resources towards the manufacturing and export of textiles, wearing apparel and footwear, with Indonesia likely becoming much more integrated with EU global production chains for such products. As with the EU, the estimated impact on Indonesia's services sector is expected to be negligible, though this, again, is likely underestimated.

The scale of the above impacts as derived from the CGE model's estimates may, however, be heavily impacted by several factors, including: (i) the extent to which the agreement leads to a reduction in non-tariff barriers; (ii) the accuracy with which the model reflects the costs associated with existing non-tariff barriers on non-agricultural products in the EU; (iii) the provisions within the agreement that address technical barriers to trade, SPS measures and customs and trade facilitation on agricultural products; (iv) the rules of origin reached under the agreement; (v) the preference utilisation rates that emerge; (vi) the ability of the model to properly account services; and (vii) the agreement's impact on foreign investment.

As shown in the following analysis, the associated impact on trade and output appears to be significantly influenced by the assumed removal of non-tariff barriers and the assumed costs associated with NTBs on trade in certain sectors. Quantitatively assessing such barriers is subject to notable difficulties, introducing uncertainty in the extent to which the model properly accounts for the impacts that

[24] The CGE model assumes full tariff reduction of these sectors, which however have a sensitive nature for Indonesia.
[25] The model does not take into account the removal of NTBs. In case NTBs in the sectors are removed following a FTA, the impact could be more pronounced.

may arise. Additionally, the model does not include NTBs associated with trade in agricultural products, suggesting that if these barriers impose similar costs, the agreement could alter the incentives that arise under the agreement, leading to greater impacts on trade in such products and smaller projected impacts in manufacturing.

These impacts may be further influenced by the utilisation rates that arise, as data from other EU preferential agreements suggest that both parties should not be expected to fully make use of the preferences afforded by the agreement. Such an outcome is expected to be further influenced by the agreement's rules of origin, including the product specific rules and scope of cumulation that it provides. In particular, these elements would be expected to alter the expected impacts on textiles, wearing apparel and footwear – particularly over the model's timeline of 2032 – leading to potential reductions in the expected gains in exports and output for Indonesia, while similarly promoting a greater intensification of regional integration in this sector with Vietnam and Korea.

3.2.1. Agricultural products (including processed foods and fisheries products)

Summary

Overall, the modelling exercise estimates that in the agricultural sector the reduction of tariffs and non-tariff barriers through the EU-Indonesia FTA is expected to produce relatively minor impacts with respect to output and trade for both sides. However, as the model does not account for potential reductions in non-tariff barriers to bilateral trade in agricultural products, it is expected that its projections likely underestimate the scope for potential increases in production and trade that may arise under the agreement.

For the EU, the model suggests that the agreement will likely lead to a shift a marginal reduction in overall agricultural output over the long-term. While still minor, this potential shift is more pronounced under the ambitious liberalisation scenario, highlighting the EU economy's greater responsiveness to removal of non-tariff barriers on non-agricultural products.

Across agricultural subsectors, the model similarly predicts that the agreement will lead to minor decreases in output across most sectors and increased reliance on imports to account for declines in domestic production.[26] Exceptions to this are the case of milk and dairy and beverages and tobacco[27], which the model predicts increases in both output and exports as a result of improved access to the Indonesian market afforded by the agreement. The processed food sector does see an increase in exports, however the output is projected to decrease.

Although similarly limited in impact, ***Indonesia*** is expected to experience minor overall increases in agricultural output, with some agricultural subsectors projected to see increases in output and exports and others estimated to experience declines in these indicators. Across all sectors, however, the estimated increase (decrease) is expected to be larger (smaller) under the ambitious scenario, highlighting the economy's responsiveness to the potential removal of tariffs on sensitive agricultural products in the EU. Two sectors that are estimated to see more notable impacts are processed foods and vegetable oils and oilseeds, with the agreement expected to generate new export opportunities in these products for Indonesia.

[26] The model does not take into account the removal of NTBs in the agricultural products sectors. In case NTBs in the sectors are removed following a FTA, the impact could be more pronounced.
[27] The CGE model assumes full tariff reduction of these sectors, which however have a sensitive nature for Indonesia.

With respect to the latter, while it does appear that the FTA would increase Indonesia's exports of vegetable oils and oilseeds (notably palm oil) to the EU and overall, the model predicts that this would not be accompanied by an increase in output but mainly as a result of diversion of Indonesian exports away from third countries.

As noted, the projected economic impacts on agricultural sectors in the EU and Indonesia are, however, potentially underestimated on account of the model's exclusion of potential reductions in non-tariff barriers on such products. As discussed in the section on industrial products, the removal of non-tariff barriers can have a pronounced effect on the estimated changes to trade and output generated by the CGE model. As such, it may be the case that the model's inability to account for such barriers with respect to bilateral agricultural trade may be resulting in an outcome where the ultimate impacts that may arise through the agreement are understated.

Overview

The sectoral aggregations used in the study's CGE model provide 11 agricultural sectors, including processed foods, beverages and tobacco and fisheries products. **Table 4** provides a brief description of the products included in these aggregations, with greater detail on these sectors according to their concordant HS Codes provided in **Table 37** in **Annex 4**. **Table 32** to **Table 36** in **Annex 2** provide full details on the CGE sectoral estimates according to overall and bilateral trade and output, while **Table 5** and **Table 7** provide CGE results for agricultural sectors for the EU and Indonesia, respectively. The following section provides further details on those sectors estimated as experiencing noteworthy impacts within the EU and Indonesia as a result of a reduction in trade barriers under the agreement.

Table 4: Description of Agricultural Sectors within the CGE Model

Sector	Description
Rice	Milled and rice in husk
Vegetables, fruits and nuts	Edible fresh fruit and nuts
Other agricultural products	Cereals, all other non-processed agricultural products
Vegetable oils and oilseeds	Soya, ground-nuts, copra, linseed, rape, sunflower, and other seeds; vegetable oils, including palm oil
Sugar	Cane, beet, and maple sugar, molasses and sugar beets
Red meat	Bovine, sheep and horse meat and live animals thereof
Milk & Dairy	Milk, cream, yogurt, whey products, butter, cheese, ice cream
Fishing	Live, fresh and chilled seafood; pearls
Other animal products	All other non-processed animal products (incl. poultry meat)
Processed foods	All other processed foods (incl. frozen seafood and coffee and tea)
Beverages & Tobacco	Beverages and spirits; malt, manufactured tobacco products

EU

Overall, the modelling exercise suggests that the FTA would have relatively minor impacts on agricultural sectors in the EU as a result of a reduction in tariffs in both the EU and Indonesia. Looking only at the effect of the EU-Indonesia FTA, the model generally predicts minor decreases in EU agricultural output across all sectors except milk and dairy and beverages and tobacco – which are projected to experience slight increases in total EU-wide output. These projected decreases are

negligible in all instances except for the vegetable oils and oilseeds sector, with both scenarios predicting an approximate decrease in EU output of €330 million (**Table 5**).

With respect to trade, the EU-Indonesia FTA is projected to produce limited changes in global EU exports across most agricultural sectors (**Table 32**). In relative terms, all sectors are predicted to experience slight increases in the value of exports. Given their relatively greater importance to the EU's agricultural exports, however, marginal increases in the exports of milk and dairy (€71.3 million in the conservative scenario and €68.5 million in the ambitious scenario), processed foods (€122.2 million and €116.6 million), and beverages and tobacco (€113.9 million and €116.8 million)[28] would be expected to produce more notable increases in absolute terms.

Conversely, the EU-Indonesia FTA would be expected to lead to greater increases in agricultural imports, reducing the EU's trade balance in most of these products across all scenarios (**Table 32**). This is particularly the case in the EU's trade of vegetable oils and oilseeds (€215 million increase in the sectoral trade deficit) and processed foods (€122.2 million in the conservative scenario and €132 million under the ambitious scenario). Two sectors, however, are expected to produce positive changes to the EU's trade balance in agricultural goods: milk and dairy (€69 million improvement to the sectoral trade balance in the conservative scenario and €65 million in the ambitious scenario) and beverages and tobacco (€106 million and €85 million).

Importantly, the figures reproduced in **Table 5** represent only a reduction in tariffs with respect to bilateral trade in agricultural products between the EU and Indonesia. Unlike in the case of trade in other goods, the model does not take into account the potential impacts that may arise from the removal of non-tariff barriers. As such, it would be expected that provisions within the agreement that deal with such barriers would alter or amplify the estimated impacts.

[28] The CGE model assumes full tariff reduction of the alcoholic beverages and tobacco sector, which however have a sensitive nature for Indonesia.

Table 5: CGE Results for EU Agricultural Sectors

Sector	Output				Total Exports				Total Imports (CIF)				Bilateral Exports to Indonesia				Bilateral Imports from Indonesia			
	% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)	
	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A
Rice	-0.2%	-0.7%	-5.52	-23.57	0.0%	0.3%	0	0.47	0.1%	0.7%	2.52	14.76	8%	30%	0.01	0.01	18%	108%	6.5	39.8
Other Agricultural Products	0.0%	0.0%	-6.04	-15.98	0.1%	0.1%	21.52	17.54	0.1%	0.1%	16.52	19.26	25%	25%	38.71	38.75	1%	1%	6.43	6.4
Vegetables, Fruits, Nuts	0.0%	0.0%	-17.49	-20.82	0.0%	0.0%	-0.65	-1.65	0.0%	0.1%	10.53	12.64	18%	18%	2.58	2.59	7%	7%	6.92	6.92
Vegetable Oils & Oilseeds	-0.6%	-0.6%	-328.71	-333.17	0.4%	0.4%	21.63	20.88	0.7%	0.7%	233.23	235.52	25%	25%	2.48	2.47	21%	21%	511.33	511.88
Sugar	0.0%	0.0%	-3.84	-6.85	0.0%	0.0%	-0.42	0.39	0.1%	0.2%	2.71	7.17	14%	71%	0.24	1.18	6%	32%	1.11	5.6
Red Meat	0.0%	0.0%	-15.82	-20.24	-0.1%	-0.1%	-3.11	-4.12	0.0%	0.1%	2.45	3.82	29%	29%	0.75	0.75	747%	747%	0.46	0.46
Other Animal Products	0.0%	0.0%	-19.07	-58.35	0.0%	0.0%	-3.49	-5.87	0.1%	0.4%	11.15	44.38	31%	31%	3.76	3.79	6%	37%	6.87	39.76
Milk & Dairy	0.0%	0.0%	81.61	76.54	0.6%	0.6%	71.32	68.46	0.1%	0.1%	2.43	3.08	33%	33%	79.97	79.92	505%	506%	0.13	0.13
Processed Food	0.0%	0.0%	-99.66	-105.27	0.2%	0.2%	122.18	116.58	0.6%	0.6%	244.37	248.72	39%	39%	119.47	119.56	28%	28%	254.18	254.46
Beverages & Tobacco	0.0%	0.0%	94.73	81.59	0.3%	0.3%	113.84	116.84	0.1%	0.3%	7.46	32.05	313%	327%	119.84	125.47	9%	45%	6.07	30.74
Fishing	0.0%	0.0%	-1.06	-1.86	0.0%	0.0%	0.22	0.34	0.0%	0.1%	1.44	2.73	12%	12%	0.17	0.17	5%	11%	1.34	2.78

Note: C = conservative scenario; A = Ambitious scenario
Source: CGE model

Unfortunately, the estimation of non-tariff barriers is difficult. While some information on non-tariff barriers does exist, it is not comprehensive and complicated by the fact that the implicit costs associated with such measures are difficult to estimate. Nevertheless, a number of such barriers operating in Indonesia have been documented. These include barriers with respect to trade in the following agricultural products:

- ***All products for human consumption***: unclear and burdensome labelling and registration requirements for food imports; limits on imports of "staple foods"; tax and tariff policies that promote domestic goods over imports; slow and non-transparent processing of EU export applications.[29]
- ***Animal products***: restrictions on imports of products considered at risk of bovine spongiform encephalopathy (BSE); unclear and non-automatic import approval systems for certain products of animal origin.[30]
- ***Plant and plant products***: allowance of imports into Tanjung Prior port (Jakarta) reserved only from those countries that have obtained a Country Registration Agreement (CRA) (of which no EU Member State has concluded).[31]
- ***Alcoholic beverages***: discriminatory excise taxes placed on imported alcoholic beverages.[32]

While the overall extent to which these barriers inhibit exports cannot be properly quantified, it is expected that, cumulatively, they serve to further lead to foregone exports of agricultural products from EU producers and that, in a number of instances, may be more restrictive than the tariffs imposed. However, while their removal would potentially lead to increases in EU output and exports, the extent to which this occurs will depend on the provisions established in the agreement's chapters on SPS measures, technical barriers to trade (TBTs) and customs and trade facilitation.

In addition to the model's liberalisation scenarios it is, therefore, useful to assume some degree of progress with respect to these issues. This includes some degree of liberalisation across the following dimensions.

- ***SPS measures***: similar conditions applied to imports originating from all EU Member States (rather than separately for each MS); recognition of official status as determined by the World Organisation for Animal Health (OIE) for certain diseases including BSE; rules regarding the procedures for carrying out and determining pest risk assessments (PRA); equivalence in accepting SPS measures; increased transparency in communicating information on SPS measures; automatic import approval; clear procedural rules for carrying out verification and audits in line with international standards.
- ***TBTs***: application of international standards in national technical regulations; and enhanced transparency regarding the notification procedure for technical regulations.
- ***Customs and trade facilitation***: increased modernisation and simplification of customs formalities and procedures, and greater transparency on customs rules and requirements.

[29] European Commission, 2018, "SPS related import restrictions", DG TRADE *Market Access Database*, retrieved 28 August 2018 via: http://madb.europa.eu/madb/sps_barriers_details.htm?barrier_id=10600
[30] ibid.
[31] European Commission, 2018, "Fresh food of plant origin, including access to Tanjung Priok port", DG TRADE *Market Access Database*, retrieved 28 August 2018 via: http://madb.europa.eu/madb/sps_barriers_details.htm?barrier_id=10521
[32] European Commission, 2018, "tax discrimination on alcoholic beverages", DG TRADE *Market Access Database*, retrieved 28 August 2018 via: http://madb.europa.eu/madb/barriers_details.htm?barrier_id=13722

Additional non-tariff provisions within the agreement that may influence the expected impact on agricultural products include the potential commitments on intellectual property. Specifically, it is expected that the agreement will attain some degree of recognition for EU geographical indications (GIs), which could be of potential relevance to its exports of milk and dairy and alcoholic beverages exports to Indonesia. While less clear, greater protection of certain patents related to seed varieties may provide additional gains to EU exporters of such products (See **Chapter 7.3** on intellectual property rights for further discussion).

An agreement that is able to achieve commitments on the above provisions would likely lead to overall increases in bilateral EU exports of agricultural products to Indonesia, potentially creating gains in overall exports and output (or at least lessen any estimated declines hereto). For specific products, it is envisaged that the following impacts could potentially arise:

- ***Processed foods***. The agreement's ability to address burdensome practices and lengthy procedures related to labelling and registration requirements may further expand on the model's estimated increases in overall exports while limiting the expected decline in total output within the sector.
- ***Beverages*** and ***milk and dairy***. The recognition of GIs for alcoholic beverages and milk and dairy may lead to further increase in the value of exports estimated within the model.
- ***Fruits and vegetables*** and ***other agricultural products***. In addressing customs procedures (including access to Tanjung Priok port) and improving procedures related to PRAs, the agreement may promote greater growth in export of fruits and vegetables to the Indonesia market, eliminating the projected minor declines in overall exports and output of such products as estimated by the CGE model. Such measures together with commitments on competition policy that subject EU exports of "staple foods" to non-discriminatory treatment may also stimulate greater overall gains for exports of EU grains and potential increases in output.
- ***Animal products***. EU producers of animal products face notable restrictions in accessing the Indonesian market. While it is unclear as to whether the agreement will be able to fully address the barriers present, greater harmonisation with international standards may lead to notable increases in the amount of such products (in particular red meat) exported to Indonesia.

It should be further noted, however, that the extent of EU market penetration is complicated by factors not related to tariff or non-tariff measures that restrict trade. Perhaps most notably, the potential market for EU dairy and plant and plant products is restricted by problems related to distribution given Indonesia's geography and limited cold-chain capacity. To the extent that these problems remain unaddressed, it may limit the ability for EU exporters to utilise preferences afforded under the agreement.

Indonesia

In general, the modelling exercise predicts that the EU-Indonesia FTA will lead to an expansion of overall agricultural output, with some sectors expected to experience minor increases and others projected to contract by marginal amounts (**Table 6**). In relative and absolute terms, the sectors estimated to expand by the largest amount in terms of output include: red meat (approximately €52 million), other animal products (€54-€77 million) and processed foods (€208-€242 million).

Among sectors projected to decline in output, only milk and dairy is estimated to experience any impact of note (approximately €66 million).

Across all agricultural sectors, output is expected to increase by a larger amount (or decrease by a smaller amount) under the ambitious scenario, highlighting the Indonesian economy's responsiveness to potential reductions in tariffs on exports of agricultural products sensitive to the EU. Regardless, as reflected by the percentages listed in **Table 6**, the estimated changes in output are relatively minor for most sectors, with all potential changes expected not to exceed 1 per cent in absolute value. Indeed, the model suggests that the EU-Indonesia FTA will not be expected to lead to noteworthy shifts in agricultural production across most sectors.

With respect to trade, Indonesia's global agricultural exports are expected to increase as a result of the agreement, with a more ambitious removal of tariffs projected to lead to larger gains in exports. This growth in exports is estimated to coincide with significantly larger growth in cumulative agricultural imports, leading to a worsening of Indonesia's overall balance of trade in such products. Among agricultural subsectors, the sectors expected to experience the largest nominal increases in total exports are processed foods (€195 million) and vegetable oils and oilseeds (€100 million), which together represent nearly all estimated growth in global Indonesian agricultural exports as a result of an FTA with the EU.

Table 6: CGE Results for Indonesian Agricultural Sectors

Sector	Output				Total Exports				Total Imports (CIF)				Bilateral Exports to the EU				Bilateral Imports from the EU			
	% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)	
	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A
Rice	0.0%	0.0%	-23.04	2.34	4.2%	31.8%	5.11	38.28	1.2%	1.4%	21.71	24.05	18%	108%	6.5	39.8	8%	30%	0.01	0.01
Other Agricultural Products	0.0%	0.0%	-0.26	6.16	-1.1%	-1.1%	-36.65	-37.22	1.7%	1.8%	140.4	143.41	1%	1%	6.43	6.4	25%	25%	38.71	38.75
Vegetables, Fruits, Nuts	0.0%	0.0%	-1.05	3.66	-0.5%	-0.5%	-8.38	-8.56	1.1%	1.2%	13.03	13.33	7%	7%	6.92	6.92	18%	18%	2.58	2.59
Vegetable Oils & Oilseeds	-0.1%	0.0%	-41.76	-30.38	0.3%	0.3%	97.05	101.17	1.1%	1.1%	52.86	53.25	21%	21%	511.33	511.88	25%	25%	2.48	2.47
Sugar	-0.1%	0.0%	-7.28	-0.84	0.0%	3.2%	0.01	4.47	0.7%	0.8%	19.15	21.59	6%	32%	1.11	5.6	14%	71%	0.24	1.18
Red Meat	0.5%	0.6%	51.41	54.17	1.1%	1.1%	0.14	0.14	2.6%	2.6%	17.73	17.99	747%	747%	0.46	0.46	29%	29%	0.75	0.75
Other Animal Products	0.3%	0.4%	53.67	77.05	-1.4%	0.9%	-19.09	11.98	3.3%	3.4%	7.37	7.69	6%	37%	6.87	39.76	31%	31%	3.76	3.79
Milk & Dairy	-1.0%	-1.0%	-68.02	-65.41	-1.2%	-1.2%	-1.58	-1.54	5.1%	5.1%	66.9	66.98	505%	506%	0.13	0.13	33%	33%	79.97	79.92
Processed Food	0.3%	0.3%	207.83	242.23	2.3%	2.3%	194.07	195.24	3.3%	3.3%	134.54	135.9	28%	28%	254.18	254.46	39%	39%	119.47	119.56
Beverages & Tobacco	-0.1%	0.0%	-23.73	3.14	0.4%	3.2%	3.46	28.38	19.5%	20.5%	113.23	118.81	9%	45%	6.07	30.74	313%	327%	119.84	125.47
Fishing	0.0%	0.0%	5.06	6.19	-0.7%	-0.7%	-9.58	-9.11	1.1%	1.2%	0.53	0.57	5%	11%	1.34	2.78	12%	12%	0.17	0.17

Note: C = conservative scenario; A = Ambitious scenario
Source: CGE model

In assessing the likely changes to Indonesia's overall trade in agricultural products together with those expected in bilateral trade with the EU, the following points emerge:

- ***Vegetable oils and oilseeds***. Bilateral exports to the EU are estimated to increase by approximately €512 million in both scenarios while overall exports increase by €97.1 million in the conservative scenario and €101.2 million in the ambitious scenario. While the FTA therefore appears to create new export opportunities, it also stands to result in notable diversion of Indonesian exports in such products away from third markets – notably as the modelling does not predict an increase in production.
- ***Processed foods***. Estimates suggest that bilateral exports would increase by approximately €254 million across both scenarios while overall exports would increase by roughly €195 million. Therefore, the model seems to suggest that while the FTA would lead to diversion of Indonesian exports of processed foods to some extent, it would also create notable new exports from improved access to the EU market.

3.2.2. Industrial products

Summary

According to the results of the CGE model, the potential reduction of tariffs and non-tariff barriers from an agreement is expected to produce notable impacts on output and trade of industrial products in the EU and Indonesia.

For the EU, the model suggests that the economy would be particularly responsive to improved access to the Indonesian market arising from a reduction in tariffs and non-tariffs barriers imposed on industrial products, with more significant outcomes arising under a higher degree of liberalisation. Overall, the model projects that by reducing barriers on industrial products, the EU would see shifts in the reallocation of resources away from textiles, wearing apparel and leather products and into a number of other industrial sectors. The model projects minor to moderate increases in output of motor vehicles and parts, paper products, chemical, rubber and plastic products and other machinery, with greater expected growth in overall exports because of the agreement. Growth in exports of these products would largely emerge because of newly created trade opportunities arising from improved access to the Indonesian market, leading to significant improvements in the EU's sectoral balance of trade in these products. While the agreement is also estimated to lead to notable increases in bilateral exports of textiles, wearing apparel and leather products with Indonesia, these gains would be significantly smaller than bilateral imports. Significant increases in the degree of integration with Indonesia in its global production chain would be expected to lead to moderate declines in EU output of these products while similarly leading to potentially notable diversion in its imports from third countries.

Impacts associated with sectoral trade and output are estimated to be similarly pronounced ***for Indonesia***. Overall, the model projects an increase in output for the industrial sector, albeit concentrated in textiles, wearing apparel and leather products, with other subsectors estimated to contract or remain unaffected. As production and trade shift towards these sectors, it is estimated that Indonesia would experience notable declines in output and exports of motor vehicles and parts, other machinery, paper and paper products, chemical, rubber and plastic products and metal products. Moderate increases in Indonesia's production and exports of electronics is expected, with the agreement potentially leading to an expanded role for Indonesia in the global production chain for such products.

While these results are being heavily influenced by an assumed reduction in tariffs, they are also being notably driven by the model's estimated reduction in non-tariff barriers. As such, the extent to which the model's projected outcomes are realised is contingent both on the ability of the agreement to reduce such barriers as well as the accuracy with which the model measures the costs associated with NTBs. Given difficulties associated with the latter, these estimates should be interpreted as suggestive, emphasising caution in interpreting the results as precise indicators of the eventual outcomes that may arise under the agreement. Further complicating their accuracy are expected limits on the preference utilisation rates that eventually materialise, since research shows that agreements generally result in wide scale instances where exporters (particularly in the short-term) forego making full use of the preferences provided by an FTA's reduction in existing tariffs. In this respect, the agreement's rules of origin may also influence expected impacts on certain products. This is likely to be particularly relevant to the impacts associated with textiles, wearing apparel and footwear since it is expected that the agreement will include strict rules on such products and as Indonesia may continue to rely on inputs from third countries not covered by cumulation provisions included in the agreement. To this end, cumulation provisions may have pronounced effects on the scope of regional integration in the sector, for instance if it includes coverage of inputs from countries such as Vietnam and Korea.

Overview

The sectoral aggregations used in the study's CGE model provide 14 industrial sectors. **Table 7** provides a brief description of the products included in these aggregations, with greater detail on these sectors according to their concordant HS Codes provided in **Table 37** provide full details on the CGE sectoral estimates according to overall and bilateral trade and output. **Table 8** and **Table 9** provide estimates for industrial products in the EU and Indonesia, respectively. The following section provides further details on those sectors estimated as experiencing noteworthy impacts within the EU and Indonesia as a result of a reduction in trade barriers under the agreement.

Table 7: Description of Industrial Sectors within the CGE Model

Sector	Description
Forestry & Wood products	Wood and articles of wood; cork and articles of cork; furniture, mattress supports
Fossil fuels	Coal, lignite, coke, petroleum and petroleum products, natural gas
Other minerals	Salt, sulphur, earths, stone, plastering, cement, ores, slag and ash, bitumen and asphalt, stone, plaster, cement, ceramic products, glassware, diamonds, precious and semi-precious stones, insulators and insulating fittings of glass or ceramics, glass parts of lamps
Textiles	Silk, wool, cotton, vegetable textile fibres, man-made textiles, carpets, fabrics, t-shirts, jerseys, pullovers, cardigans, waistcoats, hosiery
Wearing apparel	Leather apparel and clothing accessories, furskins and artificial fur, all other apparel and clothing accessories, headgear
Leather & products	Non-wearing apparel leather
Paper	Lyes from woodpulp, pulp of wood, paper and paperboard, printed books

Chemical, rubber & plastic products	Inorganic and organic chemicals; pharmaceutical products; fertilisers; tanning or dyeing extracts; cosmetics; photographic or cenmetographic goods; plastics and articles thereof; rubber and articles thereof; magnetic and optical media for recording;
Metal products	Slag, ash, silver, gold, platinum, base metals, waste and scrap of precious metals, iron and steel, copper, nickel, aluminium, lead, zinc, tin and articles thereof; tools of basemetal; metal and products of base metal; nuclear reactors and parts thereof; boilers, steam or other vapour generating machinery;
Motor vehicles & parts	Auto engines and parts thereof; road tractors, public transport vehicles; passenger motor vehicles; commercial vehicles; special purpose motor vehicles; chassis, bodies and motor vehicle parts; trailers and semi-trailers
Other transport equipment	Aircraft engines and parts thereof; turbo-jets and propellers and other reaction engines; locomotives and parts thereof; motorcycles; bicycles; carriages for disabled persons; aircraft, spacecraft and parts thereof; ships, boats and floating structures
Electronics	Printing, copying, fax machinery; calculating machines; automatic data processing machines and machinery, parts and accessories thereof; telephone sets, microphones and headphones, sound and video recording or reproducing apparatus; semi-conductor media; transmission and reception apparatus for radio and television; TV, Video and digital cameras; monitors and projectors; electrical capacitors and resistors; printed circuits; diodes, transitors and other semiconductor devices, electronic integrated circuits
Other machinery	All other machinery
Other manufacturing	All other manufactured goods

EU

With respect to output, the modelling results suggest that the EU-Indonesia FTA would lead to overall increases in the EU's output of industrial products. Cumulatively, the model projects output of such products to increase by slightly over €1 billion under the conservative scenario and €1.57 billion under an agreement that attains a greater reduction in trade barriers. As the two modelling scenarios differ only with respect to the assumed reduction in non-tariff barriers, the large relative increases in output observed in the ambitious scenario reflects the greater impact derived from the agreement's ability to reduce such barriers.

Among industrial sectors, the model estimates that the agreement would likely have various impacts on EU production depending on the sector and degree of liberalisation achieved within the agreement. As observed in **Table 8**, the sectors expected to see increases and decreases in output are as follows:

- ***Increased output***: paper and paper products, chemical, rubber and plastic products, metal products, motor vehicles and parts, other transport equipment, other machinery.
- ***Decreased output***: forestry and wood products, textiles, wearing apparel, leather and leather products.

Given the larger size of the EU economy, relative changes in output are expected to be small. Nevertheless, small percentage changes can lead to notable absolute changes in the value of output. Three sectors are estimated to contract by moderate amounts: textiles, wearing apparel and leather and leather products.

Across all industrial sectors, the EU-Indonesia FTA is estimated to lead to increases in overall EU exports and imports, with the ambitious scenario generally leading to

larger growth. Again, while percentage changes in overall trade are estimated to be small (generally less than 1 percent), the EU's status as the world's largest economy implies that even small relative changes may lead to noteworthy changes the absolute values.

Textiles, wearing apparel and leather products. All three of these sectors are estimated to experience moderate decreases in economic output within the EU as a result of the FTA. While the FTA is estimated to lead to notable increases in global EU exports of these products, these gains are expected to be significantly smaller than the estimated growth in imports. Specific results are as follows.

- ***Textiles***: reduction of approximately €530 million in output value across both scenarios. This decline in output value occurs despite increases in overall exports (€207-€233 million) and in the value of bilateral exports to Indonesia (€187-€222 million), mostly as a result of larger nominal increases in imports both overall (€563-€582 million) and from Indonesia (€1 billion).
- ***Wearing apparel***: reduction in approximately €343 million in output value across both scenarios. While the agreement is estimated to lead to notable increases in overall exports (€128-€140 million) and in exports to Indonesia (€84-€102 million), it is similarly expected to result in greater nominal increases in imports both overall (€650-€669 million) and from Indonesia (€1.56 billion).
- ***Leather products***: reduction in approximately €830 million in output across both scenarios. Growth in overall exports (€198-€212 million) and imports (€1.28-€1.29 billion) is also expected to occur, leading to a worsening to the EU's balance of trade in these products. Bilateral trade in leather products between the EU and Indonesia is expected to grow significantly, with EU exports increasing by 100 per cent to 122 per cent (€78-€96 million) and Indonesian imports increasing by over 50 per cent (nearly €2.5 billion).

These results suggest that the EU-Indonesia FTA would be expected to stimulate the creation of new trade opportunities in textiles, wearing apparel and leather products (e.g. footwear) between the two sides, with Indonesia likely assuming a more notable role in the EU's global production chain for these products. However, as estimated growth in bilateral trade exceeds overall trade growth, it would be expected that greater Indonesian integration with the EU would result in diversion of EU imports away from third countries, leading to a potentially diminished role for these countries in the EU's production chain.

Table 8: CGE Results for EU Industrial Sectors

Sector	Output				Total Exports				Total Imports (CIF)				Bilateral Exports to Indonesia				Bilateral Imports from Indonesia			
	% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)	
	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A
Fossil Fuels	0.0%	0.0%	-27.31	-49.6	0.0%	0.0%	13.8	6.58	0.0%	0.0%	110.27	136	18%	18%	38.92	38.92	0%	0%	-0.74	-0.6
Other minerals	0.0%	0.0%	12.16	6.62	0.0%	0.0%	7.62	1.85	0.0%	0.0%	41.6	50.64	18%	18%	23.13	23.14	1%	1%	7.82	8.17
Textiles	-0.3%	-0.3%	-534.17	-525.83	0.6%	0.6%	207.2	233.19	0.6%	0.6%	562.81	581.71	101%	120%	186.88	222.24	50%	50%	1064.94	1070.69
Wearing apparel	-0.3%	-0.3%	-342.71	-342.68	0.6%	0.6%	127.95	140.24	0.6%	0.6%	650.49	668.56	164%	197%	84.51	101.64	77%	78%	1555.53	1560.7
Leather & products	-1.2%	-1.2%	-829.96	-829.31	1.0%	1.1%	198.42	211.59	2.3%	2.4%	1279.81	1296.05	100%	122%	78	95.84	51%	51%	2515.95	2529.89
Paper	0.0%	0.0%	160.25	203.12	0.4%	0.5%	197.18	243.69	0.1%	0.1%	17.51	26.39	30%	38%	221.92	279.6	0%	0%	-2.47	-1.58
Chemical, rubber, plastic products	0.0%	0.0%	596.47	719.32	0.2%	0.3%	1014.08	1223.71	0.1%	0.1%	333.26	419.67	60%	75%	1188.51	1485.85	3%	3%	201.29	215.65
Metal products	0.0%	0.0%	297.73	320.59	0.1%	0.1%	187.12	215.9	0.1%	0.1%	276.24	348.68	62%	76%	288.3	354.02	1%	2%	13.81	16.19
Motor vehicles & parts	0.1%	0.1%	893.89	917.31	0.3%	0.3%	919.83	948.13	0.1%	0.1%	155.47	179.83	166%	178%	1039.15	1116.09	17%	18%	53.59	54.4
Other transport equipment	0.0%	0.1%	113.6	205.52	0.2%	0.3%	191.25	313.63	0.1%	0.1%	104.58	138.58	26%	41%	251.29	402.03	8%	9%	43.18	45.01
Electronics	0.0%	0.0%	-115.78	-111.69	0.0%	0.1%	38.33	83.1	0.1%	0.1%	229.15	287.64	29%	47%	119.26	193.94	16%	16%	173.56	178.64
Other machinery	0.1%	0.1%	930.17	1234.63	0.3%	0.4%	1349.21	1844.32	0.1%	0.1%	426.19	564.17	61%	84%	1757.97	2398.56	1%	1%	14.48	29.16
Other manufactur-ing	0.0%	0.0%	12.35	-4.7	0.1%	0.1%	31.08	29.45	0.1%	0.1%	100.31	135.23	98%	110%	49.04	55.38	1%	1%	6.34	7.46
Forestry & Wood products	-0.1%	-0.1%	-159.43	-173.9	0.0%	0.0%	10.42	4.9	0.3%	0.3%	153.19	163.41	38%	38%	13.18	13.15	7%	7%	158.79	160.8

Note: C = conservative scenario; A = Ambitious scenario

Source: CGE model

Motor vehicles and parts. The model projects slight growth in output across both scenarios, resulting in an increase of production value of approximately €905 million. This growth in output is generally in line with projected increases in global EU exports of motor vehicles and parts (€920-€948 million). This would far outpace growth in overall imports, leading to an improvement in the EU's sectoral balance of trade of between €825 and €871 million, suggesting that the agreement has the potential to directly stimulate gains for the industry through improved market access. In terms of bilateral trade, the model predicts that the FTA would lead to an increase of EU exports of motor vehicles and parts to Indonesia of between €1.04 and €1.12 billion (166-178 per cent), suggesting that the agreement would largely stimulate new export opportunities rather than leading to trade diversion.

Machinery[33]. According to the model, the EU-Indonesia agreement is expected to lead to a slight expansion of the EU's output of machinery across both scenarios (€0.93-€1.24 billion). Expansion in output would be expected to coincide with increases in exports, with the model projecting that global EU machinery exports would increase by approximately €1.35 to €1.84 billion. This would far outpace estimated growth in overall imports, resulting in an improvement in the EU's sectoral balance of trade of between €923 million and €1.28 billion (**Table 8**). With respect to bilateral trade, the model further projects EU machinery exports to Indonesia to grow substantially as a result of the FTA, increasing by €1.76 to €2.34 billion (61-84 per cent). Thus, while the agreement would be expected to generate notable growth in new exports from the EU, it would also be expected to divert some EU exports away from third countries. Furthermore, the model predicts that while EU imports would increase by nearly €430-€575 million, negligible growth in machinery imports from Indonesia would occur. As such, the agreement could present opportunities for third countries exporting intermediate inputs to the EU for manufacturing of machinery.

Paper and paper products. The model suggests that the EU-Indonesia FTA would increase global exports of EU paper and paper products by €197 million under the conservative scenario and €244 million under the ambitious scenario. This would far outpace expected increases in imports of these products, leading to an improvement in the sectoral balance of trade of between approximately €180 and €215 million (**Table 8**). Bilaterally, the growth in exports to Indonesia would be in line with overall growth as the model predicts that the FTA will lead to an increase of EU paper exports to Indonesia of €222 to €280 million (30-38 per cent). Thus, while the FTA is expected to lead to minor degrees of trade diversion, it will predominantly generate new opportunities for EU exporters.

The extent to which the above results are realised, however, will depend largely on the ultimate degree of liberalisation reached in the agreement. This relates not only to the scope of tariff reduction, but also to the agreement's ability to reduce or remove non-tariff barriers to trade in industrial products. Unlike in the case of agricultural products, the model explicitly includes a parameter designed to capture the effect of the latter. Importantly, both liberalisation scenarios are assuming the same degree of tariff reduction of industrial products, deviating only in the expected removal of non-tariff barriers, with the ambitious scenario assuming a more significant degree of liberalisation hereto. As such, the observed differences in estimates for industrial products across the two scenarios should be interpreted as largely reflecting EU manufacturers' responsiveness to NTB reduction.

In general, these results appear to be significantly impacted by the assumed removal of NTBs, suggesting that the ultimate impact from the FTA will also be heavily influenced by rules-based provisions in chapters relating, *inter alia*, to

[33] When discussing machinery, the corresponding CGE model variable is Other Machinery.

technical barriers to trade and customs and trade facilitation. However, the ability for the EU to realise these projected outcomes in trade and output also depend on the CGE model's ability to accurately capture the costs associated with these barriers.

Given the difficulties inherent in properly estimating the associated tariff equivalents from these non-tariff barriers, there are valid questions regarding the precision of the ultimate estimates on industrial products. This suggests two potential problems in the assumed degrees of liberalisation used in the policy scenarios: (i) that the actual removal of NTBs may be outside the range assumed in the conservative and ambitious liberalisation scenarios; and (ii) that the costs associated with these barriers are higher or lower than those assumed. In theory, it is possible that the model could err on either side of these two dimensions. In turn, this implies that that range of potential outcomes is wide, subjecting the modelling results to a larger degree of uncertainty. In effect, this could result in the realisation of outcomes for trade and output that are less than those estimated by the conservative scenario, but also of outcomes that exceed – perhaps significantly – the estimates under the ambitious scenario. This depends largely on the extent to which the average-tariff equivalents of the NTBs used in the model properly reflect the costs associated with these barriers and the extent to which the agreement may adequately lower these costs. While it remains safe to assume that the agreement would lead to a reduction in NTBs, it would appear that this wide degree of uncertainty should lead to a reluctance to use the model estimates as precise indicators of the outcomes expected. As such, the findings from the quantitative estimate should be largely seen as suggestive, highlighting the areas where the EU will be more responsive to liberalisation under the agreement.

With respect to particular sectors, the model's assumptions on non-tariff barriers may be particularly influential in the estimates related to other machinery, chemical, rubber and plastic products and other transport equipment since these are three non-textile-related sectors estimated to have the highest costs associated with NTBs in Indonesia. The results support this assertion since it can be seen that these sectors report some of the larger relative and absolute increases in exports and output when moving from the conservative to the ambitious scenario. As such, projected impacts on trade and output of products contained within these sectoral aggregations may be more likely to experience outcomes that fall short of the estimates produced by the CGE model.

Further influencing the impacts that ultimately arise will be outcomes related to preference utilisation rates (PURs) and the agreement's rules of origin (RoOs). As observed in research on existing EU preferential agreements, PURs should not be expected to reach 100 percent. Various studies have consistently shown that EU exporters exhibit far lower rates of preference utilisation than partner countries covered under bi- and multilateral trade agreements concluded by the EU. To this end, a recent UNCTAD study suggests that EU exporters, on average, claim preferences on two-thirds of goods exported to countries covered under an FTA. In comparison, approximately 90 per cent of imports into the EU from these partner countries are found to make use of preferential rates afforded by agreements.[34] In

[34] UNCTAD, 2018, "The Use of the EU's Free Trade Agreements: Exporter and Importer Utilization of Preferential Tariffs", retrieved 26 August 2018, via:
http://unctad.org/en/PublicationsLibrary/EU_2017d1_en.pdf
In a 2017 report, the EC found these rates to be 53 per cent for EU exports and 86 per cent for exporters to the EU among first generation FTAs and 70 per cent and 90 percent, respectively, among new generation FTAs. See: European Commission, 2017, "Report from the Commission to the European Parliament, the Council, the European and Social Committee and the Committee of the Regions on Implementation of Free Trade Agreements: 1 January 2016 – 31 December 2016", retrieved 25 August

essence, the lower the ultimate PURs for EU exports of industrial products to Indonesia, the less the actual results may reflect those generated from the formal modelling. As experience shows that PURs tend to increase over time as an agreement's full effects are implemented and exporters gain greater familiarity with its provisions, it raises questions on the ability of the two countries to reach the projected equilibrium state by the time horizon estimated in the model (2032).

Low rates of preference utilisation may be impacted by numerous factors, but two important causes include low awareness by exporters and low marginal rate of preference (MoP) between the existing tariff (usually MFN) and the preferential tariff. With respect to the former, the ultimate outcome may depend heavily on promotional efforts by public authorities in making exporters aware of the benefits and rules arising from the agreement.

With respect to the margins of preference, the removal of tariffs achieved under the agreement will likely be the leading determinant in shaping whether the margin is sufficient for inducing exporters to utilise the preferences afforded under the FTA. The modelling results suggest that there is significant scope for this to be the case with respect to industrial products, reflecting the higher tariffs applied on imports of such products entering Indonesia. However, the rules of origin agreed in the FTA will also play a significant role. Notably, procedural requirements related to proving origin can be complicated and may incur significant transaction costs. If such costs are seen as too burdensome and the MoP is not sufficiently wide, it may result in many exporters choosing to forego the preferences and instead export under the standard tariff regime.

Rules of origin will also be relevant to the ultimate impact regardless of PURs, since the nature of global production chains for certain industrial products may entail significant reliance on inputs from third countries. In such instances, the ultimate outcome may depend on the rules relating to such products, the extent of cumulation afforded, and any product specific rules (PSRs) agreed to. This is likely to be particularly relevant with respect to the model's predicted estimates for textiles, wearing apparel and footwear. Furthermore, the agreement could include rules on cumulation of these products with inputs sourced from other countries, which in turn could lead to further pronounced effects related to the structure of the industry's global production chains.

Indonesia

Given the economy's smaller size, the expected relative changes in the production of industrial goods in Indonesia is estimated to be more pronounced, suggesting that the agreement would likely have far greater consequences on the country's economic structure by leading to a shift in productive resources across various sectors of the economy. With respect to output, the modelling results suggest that the EU-Indonesia FTA would lead to overall increases in industrial production in Indonesia ranging from €3.65 billion under the conservative scenario to €3.69 billion under a more ambitious degree of liberalisation. Unlike in the case of the EU, these estimates do not vary significantly across the two liberalisation scenarios, reflecting the fact that the model does not assume a symmetric removal of non-tariff barriers on industrial products exported from Indonesia into the EU.

This expansion is expected to be concentrated in a handful of sectors, however, with notable increases projected to occur in textiles, wearing apparel and leather products (e.g. footwear) and, to a lesser extent, in electronics and forestry and

2018, via: https://ec.europa.eu/transparency/regdoc/ rep/ 1/2017/EN/COM-2017-654-F1-EN-MAIN-PART-1.PDF

wood products. All other industrial sectors are expected to contract or remain unaffected as a result of the agreement, with the motor vehicles, other transport equipment and machinery sectors projected to decline by between 1 and 2 per cent as a result of the agreement (**Table 9**).

The model further projects that Indonesia will experience cumulative increases in global exports of industrial products ranging from €4.76 to €5.19 billion under the ambitious scenario. This projected expansion of exports would exceed expected growth in imports, leading to a potential improvement in Indonesia's balance of trade in industrial products. This outcome is again driven by a handful of sectors, with the agreement expected to lead to notable increases in Indonesian exports of textiles, wearing apparel, leather products and electronics, with other sectors projected to either experience reductions in exports or to see imports increase by significantly larger amounts. In many of these cases, the EU is estimated as being the primary source of additional imports, suggesting that Indonesian manufacturers and consumers would be highly responsive to the lower prices of EU imports arising from the reduction of tariffs and NTBs under the FTA. In sectors such as motor vehicles and parts, machinery, chemical, rubber and plastic products, and other transport equipment, the model suggests that while the FTA would be expected to generate new opportunities for trade in these products, improved EU access to the Indonesian market will lead to some degree of trade diversion away from third countries currently engaged in trade of these products with Indonesia.

Industrial sectors projected to experience more notable changes in output and trade as a result of the agreement include the following.

Textiles. The model projects that the EU-Indonesia agreement would lead to an expansion of textiles production of €1.83-€1.87 billion. This expansion would coincide with growth in overall exports of between €952 million) to €1 billion, compared with growth in imports, respectively, of €366 to €385 million. Bilaterally, growth in exports to the EU is in line with growth in overall exports of textiles, with estimates projecting an increase of approximately €1 billion (50 per cent) in both scenarios.

Wearing apparel. Output is estimated to expand across both scenarios by approximately €1.14 billion in value. Growth in overall exports is expected to similarly occur, with the model estimating that the agreement would lead to an increase in exports of roughly €1.5 billion. This is significantly larger than growth in overall imports, which are projected to increase by between €74 €86 million, leading to a substantial improvement in Indonesia's balance of trade in these products. Bilaterally, growth in Indonesian exports of wearing apparel to the EU are generally in line with overall export growth as the model projects exports to the EU to increase by approximately €1.56 billion (78 per cent) across both scenarios.

Leather products. Across both liberalisation scenarios, Indonesia's production of leather products (e.g. footwear) is projected to experience an increase in the value of output of roughly €2.39 billion. This expansion is in line with estimated growth in overall exports, with is projected to increase by €2.44-€2.46 billion. With overall imports estimated to increase by between €110.2 and €122.6 million, the model projects that the agreement would lead to significant improvements in Indonesia's balance of trade in leather and leather products. Bilaterally, growth in Indonesian exports of leather products to the EU are generally in line with overall export growth as the model projects exports to the EU to increase by approximately €2.52 billion (51 per cent) across both scenarios.

Cumulatively, the model suggests that the agreement will primarily lead to the creation of new export opportunities for Indonesian producers and exporters of

textiles, wearing apparel and leather products and greater integration with the EU's global production chain for these sectors.

Table 9: CGE Results for Indonesian Industrial Sectors

Sector	Output				Total Exports				Total Imports (CIF)				Bilateral Exports to the EU				Bilateral Imports from EU			
	% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)	
	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A
Fossil Fuels	0.0%	0.0%	-17.41	5.22	-0.1%	-0.1%	-106.16	-99.68	0.2%	0.3%	126.96	132.42	0%	0%	-0.74	-0.6	18%	18%	38.92	38.92
Other minerals	-0.1%	0.0%	-60.18	-24.96	-0.3%	-0.3%	-76.57	-69.21	1.1%	1.1%	35.26	35.73	1%	1%	7.82	8.17	18%	18%	23.13	23.14
Textiles	2.7%	2.7%	1830.46	1861.78	5.5%	5.7%	952.44	981.47	4.5%	4.7%	365.67	385.37	50%	50%	1064.94	1070.69	101%	120%	186.88	222.24
Wearing apparel	9.6%	9.6%	1141.02	1143.68	14.9%	15.1%	1491.74	1507.26	10.5%	12.2%	73.94	86.01	77%	78%	1555.53	1560.7	164%	197%	84.51	101.64
Leather & products	11.7%	11.8%	2375.72	2390.66	22.2%	22.4%	2439.66	2464.3	9.8%	10.9%	110.2	122.53	51%	51%	2515.95	2529.89	100%	122%	78	95.84
Paper	-0.6%	-0.6%	-201.3	-215.98	-0.5%	-0.4%	-63.02	-46.44	3.7%	4.5%	182.49	222.3	0%	0%	-2.47	-1.58	30%	38%	221.92	279.6
Chemical, rubber, plastic products	-0.2%	-0.3%	-407.16	-458.88	0.0%	0.2%	-10.94	76.81	2.3%	2.7%	975.07	1125.29	3%	3%	201.29	215.65	60%	75%	1188.51	1485.85
Metal products	-0.3%	-0.2%	-280.47	-225.91	-0.5%	-0.3%	-117.18	-68.9	1.7%	1.9%	254.63	285.7	1%	2%	13.81	16.19	62%	76%	288.3	354.02
Motor vehicles & parts	-1.7%	-1.7%	-544.43	-546.62	0.3%	0.5%	28.48	45.08	7.5%	8.1%	677.57	724.57	17%	18%	53.59	54.4	166%	178%	1039.15	1116.09
Other transport equipment	-0.8%	-1.0%	-234.5	-305.34	-0.2%	0.1%	-9.94	6.74	2.7%	3.9%	191.67	274.38	8%	9%	43.18	45.01	26%	41%	251.29	402.03
Electronics	0.8%	1.0%	137.72	170.85	1.6%	2.0%	159.84	199.04	0.9%	1.0%	125.93	146.25	16%	16%	173.56	178.64	29%	47%	119.26	193.94
Other machinery	-1.1%	-1.2%	-386.52	-427.21	0.2%	0.7%	47.21	153.08	1.4%	1.9%	568.27	735.49	1%	1%	14.48	29.16	61%	84%	1757.97	2398.56
Other manufacturing	0.1%	0.1%	7.36	17.33	-0.2%	0.0%	-5.64	-0.84	1.9%	2.0%	51.31	53.49	1%	1%	6.34	7.46	98%	110%	49.04	55.38
Forestry & Wood products	0.8%	0.9%	285.46	304.67	0.3%	0.4%	30.73	38.44	3.4%	3.4%	31.52	31.4	7%	7%	158.79	160.8	38%	38%	13.18	13.15

Note: C = conservative scenario; A = Ambitious scenario
Source: CGE model

To a more limited extent, the model also suggests that there is scope for the agreement to lead to some intensification of Indonesia's role in global supply chains of **electronics**. Output of electronics products in Indonesia is estimated to increase by €138 million under the conservative scenario and €171 million under the ambitious scenario. Modest increases in overall Indonesian exports are projected by the model, with the conservative scenario estimated to result in an increase of €160 million and the ambitious scenario leading to an increase of €199 million. As exports would be expected to increase by a larger amount than imports, the model projects that the FTA could lead to an improvement in Indonesia's sectoral balance of trade of between €33.9 and €52.8 million.

As in the case of the EU, it is important to note that these projected impacts on trade and output of Indonesian industrial products may be heavily influenced by the model's treatment of non-tariff barriers. As noted above, however, unlike with the EU, the CGE calculations do not model the reduction of NTBs in the EU – assuming only a reduction in tariffs. This complicates the interpretation of these results.

The lack of modelling for non-tariff barriers on Indonesian exports of industrial products to the EU has two potential implications. It may overestimate the expected increases in output and exports in the EU, while simultaneously underestimating the potential increases in these indicators for Indonesia. As noted above, based only on an assumed reduction in tariffs, the model illustrates the potential impacts arising in the sectors of textiles, wearing apparel, leather products (e.g. footwear) and electronics. To the extent that Indonesian exports of these products to the EU may currently face non-tariff measures, the ultimate impact could be even more pronounced than estimated by the CGE model. Furthermore, the model projects modest declines in output in the Indonesian sectors of chemical, rubber and plastic products, metal products, motor vehicles and parts, other transport equipment and machinery, while predicting that Indonesia will experience an increase in its sectoral trade deficit for these products. By not including NTBs on these products within the EU, the model might, be introducing an element of bias and inflating the estimated size of these decreases in output as well as the reduction of Indonesia's trade balance in these products.

Of particular relevance to the model's projections of textiles, wearing apparel and leather and leather products (e.g. footwear) will also be the rules of origin applied under the agreement. As noted in the previous section, it is expected that the agreement will apply strict rules on such products while also including cumulation with inputs sourced from certain third countries. Indonesia may not be able to fully capture preferential rates on account of continued reliance on intermediate inputs sourced from third countries not covered under the agreement's provisions on cumulation. Furthermore, provisions that do allow cumulation with certain third countries may lead to additional impacts with respect to changes in the regional value chain that eventually emerge over the long-term.

Conversely, the model may similarly underestimate potential gains that may be expected to arise from the agreement's impact on FDI. Such benefits could be twofold: (i) through increased EU investment in manufacturing – particularly in textiles, wearing apparel and footwear; and (ii) through increased investment from third countries that wish to utilise Indonesia's preferential access to the EU market. Similarly, increased investment and costs-savings associated with increased EU access to Indonesia's public procurement market may generate additional gains through associated upgrading of infrastructure.

3.2.3. Services

Summary

With respect to the impacts on output and cross-border trade in services arising from the EU-Indonesia FTA, the model estimates that the agreement will not lead to significant economic impacts for either side. ***The EU*** is estimated to experience marginal increases in overall services output and minor reductions in its balance of trade across most services sectors, with these being slightly more pronounced under the model's ambitious scenario. Similarly, ***Indonesia*** is projected to experience minor impacts associated with output and trade in services. While most service sectors are expected to experience increases in output, the value of imports is estimated to increase by a larger amount than exports, leading to a worsening of its balance of trade in services.

As briefly noted below, however, data limitations and difficulties in measuring costs associated with barriers to services limit the effectiveness of economic models in properly accounting for the effects of services liberalisation. Moreover, the ultimate impact on services arising from the agreement may not be reflected in cross-border trade (Mode 1) but may more likely emerge through elements such as investment (Mode 3) and the agreement's ability to promote greater FDI through provisions related to, e.g., investor protections, public procurement, foreign ownership and establishment. While the ultimate effect of these shortcomings would likely vary by sector and partner, it is expected that they likely bias the modelling results downward, reducing the expected growth of trade and output that might be expected to arise under the agreement.

Overview

The sectoral aggregations used in the study's CGE model include 7 services sectors. Table 10 provides a brief description of the products included in these aggregations, with greater detail on these sectors according to their concordant ISIC Codes provided in **Table 37** in **Annex 4**. **Table 32** to **Table 36** in **Annex 2** provide full details on the CGE sectoral estimates according to overall and bilateral trade and output, while **Table 11** and **Table 12** provide estimates specific to services for the EU and Indonesia, respectively The following section provides further details on those sectors expected to experience noteworthy impacts within the EU and Indonesia as a result of a reduction in trade barriers under the agreement.

It should be noted, however, that the treatment of services in CGE modelling is complicated by a number of factors, which make estimating the effect of the EU-Indonesia FTA more complex. To begin, unlike trade in goods, trade in services is not subject to tariffs, making the reductions in costs associated with liberalisation difficult to quantify. To account for this, the modelling exercise must translate barriers to trade in services into a tariff-equivalent that can then be used to calculate cost-savings associated with their reduction. Furthermore, there are several potential issues arising from data on services, particularly with respect to input-output tables and shortcomings in accounting for modes 3 (establishment) and 4 (presence of a natural person) of services trade. Cumulatively, these issues subject the model's estimates on services to greater degrees of uncertainty.

Table 10: Description of CGE Model Services Sectors

Sector	Description
Utilities: energy	Production, collection and distribution of electricity; manufacture and distribution of gas

Other utilities	Collection, purification and distribution of water; construction
Water transport	Water transportation
Other transport	Land transport, transport via pipelines; supporting and auxiliary transport activities; activities of travel agencies; air transport
Financial services	Financial intermediation, except insurance and pension funding; activities auxiliary to financial intermediation
Other business services	Real estate; renting; business activities, including professional, scientific and technical activities
Other services	Sales, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel; wholesale trade and commission trade; retail; hotels and restaurants; post and telecommunications; recreational, cultural and sporting activities; other service activities; private households with employed persons; public administration and defence; compulsory social security; education; health and social work; sewage and refuse disposal, sanitation and similar activities; activities of membership organisations; extra-territorial organisations and bodies; dwellings

EU

As a highly-developed economy that is overwhelmingly oriented towards services, it is unlikely that liberalisation under an FTA with Indonesia with respect to cross-border trade in services will produce notable effects on the EU economic structure. This is reflected by the modelling results, which find the relative change in EU service output to be very small across all sectors. Although relatively negligible, the model predicts the following in terms of sectoral expansion and contraction in both liberalisation scenarios, with the effect becoming more pronounced (either positively or negatively) under the ambitious scenario (**Table 36**).

- ***Increases in output***: utilities (energy and other), other services.
- ***Decreases in output***: transport services (water and other), financial services, other business services.

Similarly, minor effects are estimated with respect to trade in services (**Table 11**). Cumulatively, the model projects that EU services exports would increase by €189 million under the conservative scenario and €62 million under the ambitious one. Among service subsectors, marginal increases in exports are projected for "other services", transportation services and "other business services", with marginal decreases projected for energy and financial services. It is noteworthy that the model employs across the two scenarios the same degree of tariff reduction for non-agricultural products and the same degree of tariff-equivalent reduction for services, while including in the ambitious scenario a greater reduction in NTBs for non-agricultural products. That EU exports subsequently exhibit smaller gains under the ambitious scenario suggests that the EU economy would be far more responsive to the removal of such barriers, with this leading to the shift of productive resources away from services and into production and export of industrial products.

Due to the reasons noted in the overview of this section, it is almost certainly the case that the CGE model underestimates the potential impacts from the agreement with respect to services. In particular, the database used for the model does not account for all modes of trade in services, likely biasing results, while key economic indicators relevant to investment are not captured in the results. As such, there is scope for the agreement to lead to more pronounced impacts on trade (particularly mode 3 – establishment) and output of services through the agreement's provisions

related, *inter alia*, to establishment, foreign ownership, public procurement and investor protections.

Indonesia

The model estimates that the agreement would have a more prominent effect on Indonesia's services sector compared to the EU. Across all service sectors, the model projects that the agreement would lead to an expansion of output ranging from €2.16 billion under the conservative scenario to €2.64 billion under the ambitious scenario. In terms of impacts on service subsectors, while the agreement is estimated to lead to minor decreases in Indonesia's output of water transportation and other business services, all other service sectors are expected to experience growth in output under both liberalisation scenarios. Although these increases are marginal in size, several sectors are estimated to experience more pronounced effects. Most notably, Indonesia's other utilities sector is estimated to increase output by €974 million under the conservative scenario and €1.12 billion under the ambitious one (**Table 12**)

With respect to trade, Indonesia is expected to see negligible increases in its services exports. Far greater increases are instead expected to arise with respect to imports, leading to a reduction in Indonesia's balance of trade in services. As noted with regard to the expected impacts on the EU, however, the estimates from the CGE model likely understate the potential impact on Indonesia's services sector as a result of the FTA.

Table 11: CGE Results for EU Services Sectors

Sector	Output				Total Exports				Total Imports (CIF)				Bilateral Exports to Indonesia				Bilateral Imports from Indonesia			
	% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)	
	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A
Utilities: Energy	0.0%	0.0%	25.44	32.72	-0.1%	-0.1%	-5.91	-7.72	0.1%	0.1%	10.7	14.54	0%	0%	0	0	0%	0%	-0.93	-0.64
Other Utilities	0.0%	0.0%	90.48	119.14	0.0%	0.0%	4.09	-1.12	0.1%	0.1%	24.04	29.05	8%	8%	20.45	20.47	2%	2%	10.85	11.31
Other Services	0.0%	0.0%	343.44	460.94	0.0%	0.0%	77.44	39.34	0.1%	0.1%	186.47	225.46	8%	8%	202.84	202.64	2%	2%	69.23	71.5
Other Transport	0.0%	0.0%	-0.61	-11.62	0.0%	0.0%	71.08	50.5	0.1%	0.1%	123.91	143.96	8%	8%	139.16	138.94	3%	3%	67.89	69.15
Water Transport	0.0%	0.0%	-1.72	-4.22	0.0%	0.0%	6.7	3.59	0.1%	0.1%	16.72	19.47	6%	6%	15.83	15.73	2%	2%	9.71	9.93
Financial Services	0.0%	0.0%	-71.62	-88.25	0.0%	0.0%	-22.97	-40.94	0.1%	0.1%	61.36	77.84	6%	6%	36.95	36.76	2%	2%	8.36	8.84
Other Business Services	0.0%	0.0%	-3.72	-16.41	0.0%	0.0%	58.32	17.87	0.1%	0.1%	164.24	208.74	7%	7%	198.53	198.13	2%	2%	6.6	6.85

Note: C = conservative scenario; A = Ambitious scenario
Source: CGE model

Table 12: CGE Results for Indonesian Services Sectors

Sector	Output				Total Exports				Total Imports (CIF)				Bilateral Exports to EU				Bilateral Imports from EU			
	% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)		% change		Value (mil €)	
	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A	C	A
Utilities: Energy	0.1%	0.2%	42.2	51.38	-0.3%	-0.2%	-2.46	-1.87	0.4%	0.4%	0.01	0.01	0%	0%	-0.93	-0.64	0%	0%	0	0
Other Utilities	0.5%	0.6%	974.07	1125.43	0.2%	0.3%	2.97	4.16	3.6%	3.6%	21.98	22.1	2%	2%	10.85	11.31	8%	8%	20.45	20.47
Other Services	0.2%	0.2%	1059.99	1306.75	0.2%	0.2%	14.8	19.79	3.1%	3.2%	216.62	216.93	2%	2%	69.23	71.5	8%	8%	202.84	202.64
Other Transport	0.1%	0.1%	79.95	104.32	0.6%	0.6%	42.55	45.69	2.6%	2.6%	134.73	134.58	3%	3%	67.89	69.15	8%	8%	139.16	138.94
Water Transport	0.0%	0.0%	-10.58	-9.2	0.6%	0.6%	6.72	7.26	2.2%	2.2%	14.69	14.47	2%	2%	9.71	9.93	6%	6%	15.83	15.73
Financial Services	0.2%	0.2%	91.16	122.64	0.2%	0.2%	2.13	3.35	2.3%	2.3%	39.51	39.19	2%	2%	8.36	8.84	6%	6%	36.95	36.76
Other Business Services	-0.3%	-0.2%	-80.71	-63.18	-0.1%	0.0%	-1.34	-0.34	2.6%	2.6%	184.18	183.99	2%	2%	6.6	6.85	7%	7%	198.53	198.13

Note: C = conservative scenario; A = Ambitious scenario

Source: CGE model

3.3 Impacts on Third Countries

The CGE model provides, for each of the sectors it looks at, an estimate of the absolute value of the increases in import and exports, bilaterally and with the rest of the world, for both the EU and Indonesia, which are expected to arise from the FTA. Potential trade diversion can be illuminated by comparing the absolute increase in total imports by sector with the absolute increase in bilateral exports by sector and subtracting the absolute increase in total imports by sector. For example, in the vegetable oils and oilseeds sector, the absolute increase for total imports into the EU is expected to be approximately €234 million, while the absolute increase of bilateral exports in the sector from Indonesia to the EU is projected to amount to approximately €511 million. This means that approximately €277 million of EU imports in vegetable oils and oilseeds originating from Indonesia that were previously being imported from third countries may be diverted toward Indonesian imports. This suggests trade diversion, leading to potential impacts on the countries previously exporting the diverted quantities to the EU. The sectors that are expected to experience such impacts for both the EU and Indonesia are presented below.

Impacts on exporters to the EU

There are four import sectors of the EU where third countries exporting towards the EU may experience some notable effects from the establishment of an FTA between the EU and Indonesia: vegetable oils and oilseeds, textiles, wearing apparel, and leather and leather products. The potential impact on third countries is presented in **Table 13**.

Table 13: Potential EU Trade Diversion Arising from the FTA

Sector	Total EU imports absolute increase (approximately in million EUR)		Absolute increase bilateral exports IDN to EU (approximately in million EUR)		Difference (approximately in million EUR)	
	Conservative	Ambitious	Conservative	Ambitious	Conservative	Ambitious
Vegetable Oils and Oilseeds	233	235.5	511	512	278	276.5
Textiles	563	582	1,065	1,071	502	489
Wearing Apparel	650.5	668.5	1,555.5	1,561	905	892.5
Leather and Leather Products	1,280	1,296	2,516	2,530	1,236	1,234

Source: CGE model

Vegetable oils and oilseeds

According to the CGE model projections the share of Indonesia's exports of vegetable oils and oilseeds to the EU is expected to increase by 21 per cent. This could have impacts on other countries currently exporting vegetable oils to the EU, especially as the origin of approximately €277 million worth of vegetable oil and oilseed exports to the EU is expected to divert from other countries towards Indonesia. In the South-East Asia/Pacific region, Malaysia and Papua New Guinea are among the direct competitors of Indonesia in terms of vegetable oil and oil seed

exports to the EU and hence could see a decrease in exports of palm oil.[35] The extent to which this will take place is difficult to specify, as Papua New Guinea for example has an Economic Partnership Agreement in place with the EU, whereby they benefit from duty free and quota free export access towards the EU[36] while Malaysia could also have its own FTA with the EU. Around the world, other exporters of palm oil towards the EU that could be impacted by preferential market-access of Indonesian palm oil include Colombia, Honduras and Guatemala.[37] In the palm oil sector, many countries experience higher production costs than Indonesia and can be expected to experience the negative effects of trade diversion. It is noteworthy that any negative impacts are likely to be spread across several countries, reducing the specific impact to each individual country.

Additionally, exports in palm oil from Indonesia to other countries might divert to the EU in case of the prospective FTA being in place. In 2017, the total export value of palm oil from Indonesia was approximately EUR 11.9 billion.[38] The largest recipients of Indonesian palm oil were India (30 per cent), China (13 per cent) and Pakistan (9.3 per cent). As, according to the CGE model, the overall output of the vegetable oil and oilseeds sector in Indonesia is projected to decrease slightly with EUR 41.7 million (0.06 per cent), whilst the exports to the EU are increasing as can be seen in Table 13, it is expected that some of the exports that used to have India, China and Pakistan as destinations will divert to the EU.

Textiles

According to the CGE model, Indonesian textile exports to the EU are expected to increase significantly under the FTA. As a result of the increased imports of the EU, the origin of approximately €500 million of textiles originally destined for the EU from third markets is projected to switch to Indonesia. In South-East Asia, four countries present strong textile exports to the EU: Vietnam, Cambodia, Myanmar and Laos.[39] They are the most likely be impacted by an EU-Indonesia FTA, despite Vietnam having concluded its own FTA negotiations with the EU (reference baseline model) and the three other countries enjoying preferential treatment under EBA. With respect to Vietnam specifically, it is noteworthy that some of these exports to the EU may instead be diverted to Indonesia depending on the structure the global production chain that emerges following the agreement.

It is noteworthy that approximately 21 per cent of all Turkish exports towards the EU are textiles and textile articles.[40] As Turkey is closer to the EU market and consequently benefits from relatively low transportation costs, then – if all other costs between Turkey and Indonesia remain equal –a shift in supply chain is unlikely. However, Indonesia's production costs are lower and therefore competition

[35] European Commission DG TRADE, European Union, Trade in goods with Malaysia, available at http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113416.pdf
[36] European Commission DG Trade, 2009, EU and Papua New Guinea sign trade and development agreement, available at http://trade.ec.europa.eu/doclib/press/index.cfm?id=405
[37] CBI, Centre for the Promotion of Imports of the Netherlands, 2016, Exporting palm oil to Europe, available at https://www.cbi.eu/market-information/vegetable-oils/palm-oil/#
[38] Observatory of Economic Complexity, 2017, Where does Indonesia export Palm Oil to? (2017), available via https://atlas.media.mit.edu/en/visualize/tree_map/sitc/export/idn/show/4242/2017/, original publication of website: Simoes, A. and Hidalgo, C., 2011, The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development. Workshops at the Twenty-Fifth AAAI Conference on Artificial Intelligence.
[39] European Commission DG TRADE, European Union, Trade in goods with Vietnam, Cambodia, Myanmar and Laos, available at http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113463.pdf,http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113362.pdf , http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113410.pdf and http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113423.pdf
[40] European Commission DG TRADE, European Union, Trade in goods with Turkey, available at http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113456.pdf

is still possible. Regional developments such as an improvement in the infrastructure currently available in Myanmar could also affect Indonesia's relative sectoral competitiveness.

Wearing apparel (clothing)

Major trade partners of the EU in the field of wearing apparel include China, Bangladesh, Turkey, India and Cambodia. The value of the wearing apparel exported to the EU that could divert from third countries to Indonesia is, according to the CGE model, approximately €900 million. This is a substantial amount considering that for instance the total export of Cambodia in wearing apparel to the EU amounts to approximately €3.75 billion.[41] Bangladesh and Cambodia currently have the benefit of duty-free access to the EU thanks to the EBA. Turkey, China and India could also experience negative impacts from the FTA. It is noteworthy that during the last decade, some countries in the region, notably China, have moved much of their domestic manufacturing in wearing apparel to Indonesia or its neighbours to benefit from the lower costs manufacturing, considering the rising costs at home.

Leather and leather products

The Indonesian export sector which according to the CGE model predictions would benefit most from the FTA is the leather and products sector, where the increase of bilateral exports is projected at 51 per cent across both scenarios. The largest suppliers of leather products to the EU include China, India, the Philippines and Indonesia.[42] Indonesia's export of leather to the EU is already growing, notably due to China's declining exports. A prospective FTA would give further growth prospects to the leather industry in Indonesia.

Impacts on third countries exporting to Indonesia

There are several Indonesian import sectors where third countries exporting towards Indonesia may see an effect from the establishment of an FTA between the EU and Indonesia. Notably affected sectors include paper, chemical, rubber and plastic products, metal products and motor vehicles and parts.

Table 14: Potential Indonesian Trade Diversion Arising from the FTA

Sector	Total Indonesia imports absolute increase (approximately in million EUR)		Absolute increase bilateral exports EU to IND (approximately in million EUR)		Difference (approximately in million EUR)	
	Conservative	Ambitious	Conservative	Ambitious	Conservative	Ambitious
Paper	182	222	221	280	39	58
Chemical, rubber and plastic products	975	1,125	1,188.5	1,486	213.5	361
Metal products	255	286	288	354	33	68
Motor vehicles and parts	677.5	724.5	1,039	1,116	361.5	391.5

Source: CGE model

[41] European Commission DG TRADE, European Union, Trade in goods with Cambodia, available at
[42] https://www.cbi.eu/market-information/apparel/leather-fashion-accessories/

Paper

The paper sector consists of various HS codes in the CGE model.[43] Within the sector, most trade between the EU and Indonesia takes place in HS 47 and HS 48. In 2016 the export value from the EU towards Indonesia for these two subsectors was approximately €228 million and €165 million respectively.[44] As the supply chain for the export in pulp of wood and paper and paperboard is already well established, it is expected that with an FTA, those exports would most likely increase. Worldwide, the biggest exporting countries for HS 47 towards Indonesia by value are the US and Canada. Both countries would likely see some impacts from an FTA between Indonesia and the EU. In Asia the countries exporting most pulp of wood to Indonesia are Singapore, Japan and South Korea.[45] On pure value terms HS 48 (paper and paperboard) imports of Indonesia originate more from Asian countries, namely China, South Korea, Singapore and Thailand.

Chemical, rubber and plastic products

China, Singapore, Japan, Thailand and South Korea are the largest exporting countries towards Indonesia in the chemical, rubber and plastic sector.[46] Following an FTA between Indonesia and the EU, the CGE model estimates that there would be an increase of approximately 60 per cent (ranging from €1.12 to €1.49 billion) of bilateral exports in this sector towards Indonesia. Trade diversion may take place, since Indonesia's imports in the chemical, rubber and plastic products sector are only expected to increase by approximately €1.17 billion.

Metal products

Indonesia's imports of Metal products originate largely from countries in Asia. China, South Korea, Japan, Singapore and Malaysia all have large exports of metal products to Indonesia.[47] However, the impact of an increase in Indonesian imports from the EU will likely have a minimal effect on those countries because of the total value of the supply chain that is already in place. Again, the most likely impacted countries would be the countries in proximity to the EU that do not have duty free access to Indonesia and vice versa, such as Russia.[48]

Motor vehicles and parts

The CGE model predicts that trade diversion may take place in this sector as the absolute bilateral increase of Indonesian imports from the EU is projected to be higher than the expected absolute total increase of the imports by Indonesia in the sector of motor vehicles and parts. EU exports to Indonesia would increase by 166

[43] 3804 - Residual lyes from the manufacture of wood pulp, 47 – pulp of wood or other fibrous cellulosic material; recovered paper or paperboard, 48 – paper and paperboard; articles of paper pulp, of paper or paperboard, 49 – printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans, 5905 – textile wall coverings, 844250 – Printing type, blocks, plates, cylinders & other printing components; blocks, plates, cylinders & lithographic stones, prepared for printing purposes (e.g., planed/grained/polished).
[44] UN COMTRADE
[45] Ibid.
[46] World Integrated Trade Solution Worldbank, Indonesia global imports in Plastic and Rubber https://wits.worldbank.org/CountryProfile/en/Country/IDN/Year/LTST/TradeFlow/Import/Partner/by-country/Product/39-40_PlastiRub
[47] World Integrated Trade Solution Worldbank, Indonesia global imports in Metals https://wits.worldbank.org/CountryProfile/en/Country/IDN/Year/2016/TradeFlow/Import/Partner/all/Product/72-83_Metals
[48] Ibid.

per cent in the sector according to the conservative liberalisation scenario in the CGE model. Increases in trade activity in this field are due in part to the already relatively high volume of Indonesian imports from the EU. Indonesian companies already have part of their global supply chain for motor vehicles and parts in Europe.[49] Other major exporters in this area are Thailand, Japan, Korea, China and Singapore. As those countries are near to Indonesia it is more likely that countries like the US and Brazil will see impact from the possible trade diversion.

3.4 Impacts on the EU's Outermost Regions

The impact of the EU-Indonesia FTA on the outermost regions of the EU[50] will most likely be minimal, primarily because the regions are heavily reliant on the services sector, particularly tourism, and financial services, which are not expected to be affected by the FTA.[51] Furthermore, the outermost regions are largely concerned with the production of bananas, sugar(cane), rum and, in the case of the Canary Islands, tobacco.[52] In case of La Reunion and the Azores where the fishery industry is very important, the FTA could potentially negatively impact their sales of frozen fish in the rest of the EU.[53]

Due to their remoteness and size of their economies, the outermost regions mainly trade with their nearest neighbours and other EU regions. Generally, trade between the outermost regions and Indonesia is very minimal to non-existent. As no significant trade diversion in the main products exported by the outermost regions was detected, any impacts on the outermost regions are likely to be minimal.

Some stakeholders in the outermost regions have raised concerns about the potential negative impact on the agricultural sectors of the regions. They signal potential discrepancies due to the necessity of producers in the outermost regions to comply with high European environmental, social and phytosanitary standards, while they are concerned that Indonesia would not have to comply with those standards in the production phase. In addition, the French outermost regions identify sugar, rum and bananas as their defensive interests. The CGE model results do not indicate that there will be a case of trade diversion thus Indonesia is expected to maintain a broadly similar trade relationship with Europe's outermost regions as before.

3.5 Impacts on SMEs

In contrast to larger businesses, SMEs face particular constraints in engaging in international markets. Constraints can include difficulty in reaching scale economies, limited capacity to deal with the complex administrative and regulatory procedures, and asymmetrical access to trade information and trade promotion. A

[49] World Integrated Trade Solution Worldbank, Indonesia global imports in Transport vehicles https://wits.worldbank.org/CountryProfile/en/Country/IDN/Year/2016/TradeFlow/Import/Partner/all/Product/86-89_Transport

[50] Outermost regions consist of Guadeloupe and La Reunion, Mayotte, French Guiana and Martinique, Saint-Martin, Madeira and Azores and the Canary Islands.

[51] European Commission, European lands in the world, available at http://ec.europa.eu/regional_policy/sources/policy/themes/outermost-regions/pdf/rup_2017/rup_partner_reunion_en.pdf

[52] European Commission DG GROWTH, Canary Islands, available at https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/canary-islands

[53] http://ec.europa.eu/regional_policy/sources/policy/themes/outermost-regions/pdf/rup_2017/rup_partner_reunion_en.pdf

recent study by DG Trade categorized factors which limit EU SME participation in international trade according to three major barriers[54]:

- Firm specific impediments to internationalisation, due to limited human, financial and asymmetric information
- Domestic business environment impediments, due to policies and administrative practices
- Market access and investment specific barriers, such as tariff and non-tariff barriers and limitations on different modes of supply of services.

A firm-level study conducted by the UN Regional Economic and Social Commission for Asia and the Pacific (ESCAP) found that a reduction in customs and trade clearance times increased SMEs likelihood of participation in export or international production networks (IPNs) relatively more than that of larger enterprises[55].

This section reflects the "SME Test" proposed in the European Commission's Better Regulation Guidelines and the accompanying "Toolbox". In undertaking the analysis, consideration is given to the impact that the agreement may have on SMEs' competitiveness, compliance costs, administrative costs and market entry costs, as well as on the impact that the FTA may have on ease of establishment in Indonesia for EU SMEs and vice versa.

As the SME Test requires consultation with SME stakeholders to establish the nature and magnitude of the impacts a prospective FTA might entail for SMEs, this section draws upon the stakeholder interviews and written contributions, data gathered during the local stakeholder workshop as well as on the results of the special SME questionnaire.

Overview

As the backbone of both European and Indonesian economies, representing over 99 per cent of all companies in both the EU and Indonesia, the prospective FTA is bound to have impacts on SMEs in both parties.[56] In the EU, SMEs employ approximately 93 million people, accounting for 67 per cent of total employment in the EU-28 non-financial business sector and generate 57 per cent of value added in the EU-28 non-financial business sector[57].

According to the *Annual Report on European SMEs*, within the non-financial business sector, SMEs are most prevalent in the accommodation and food services, business services, as well as in construction sectors, in each of which they accounted for more than 80 per cent of EU-28 employment in 2016. Additionally, SMEs also accounted for 70 per cent of EU-28 employment in the retail and wholesale trade sector in the same year.[58]

[54] Cernat, L., Norman-Lopez, A. & T-Figueras, A. D. 92014). SMEs are more important than you think! Challenges and opportunities for EU exporting SMEs. *Chief Economist Note*, Issue 3. September. DG Trade.
[55] ITC, UNESCAP and UNNExT (2016). Making the WTO Trade Facilitation Agreement Work for SMEs. United Nations; Duval, Y. & Utoktham, C. (2014). Enabling participation of SMEs in international trade and production networks: Trade facilitation, trade finance and communication technology. *ARTNET Working Paper Series No .146*. UNESCAP
[56] European Commission, The EU Proposal on Small and Medium-sized Enterprises (SMEs), 2017, available at: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155294.pdf
[57] European Commission, Annual Report on European SMEs 2016/2017, 2017, available at: file:///C:/Users/Maayan/Downloads/Annual%20Report%20-%20EU%20SMEs%202016-2017.pdf
[58] Ibid

In Indonesia, SMEs employ 97 per cent of the total workforce and generate roughly 60 per cent of the added value in the economy.[59] It is estimated that 51 per cent of Indonesia's SMEs are active in agriculture, livestock, forestry and fisheries as well as in palm oil sector.[60] Similarly to the situation in the EU, most of the SMEs in Indonesia belong to the micro category, which means that any barriers to trade and especially regulatory measures would affect them more than their larger counterparts.

SMEs can find meaningful opportunities in the e-commerce sector. The Indonesian Government has only recently opened its e-commerce sector to FDI. The Indonesian Ecommerce Association is cooperating with the Indonesian Government to establish a roadmap for e-commerce development, especially after millions in investments have been received by a variety of initiatives including B2C and C2C.[61] The strategy targets consumers with easy access to the internet, but without the access to a variety of brands to meet the growing consumer demand (including the malls catering to these brands). Issues regarding logistics remain however, related to digital and physical infrastructure outside of Java and other main islands.[62] Main issues relate to preferential payment methods of e-customers in Indonesia: with credit card-coverage often minimal, cash on delivery remains common. E-payment alternatives have been slow to take root, hampering expected growth for e-commerce in Indonesia, including growth for foreign firms.

The roadmap for e-commerce serves to outline future e-commerce policies in Indonesia to streamline the industry. While meant for domestic businesses, taxation of e-commerce is expected to be harmonised for foreign SMEs operating in this industry in Indonesia: equal tax treatment for non-Indonesian e-commerce businesses to regulate offshore e-commerce is anticipated under the roadmap.

Data protection is another issue addressed in the roadmap, however the regulations in the EU are more demanding in line with the General Data Protection Regulation (GDPR). The e-commerce policy framework in Indonesia would offer more transparency paving the way for more foreign SMEs to access the market even without an FTA.

Another aspect that is worrisome to foreign SMEs, according to stakeholders, relates to the Government's new Regulation on E-Commerce, which is under drafting. According to the draft regulation, e-commerce platform providers must be in possession of an Indonesian legal entity, meaning that they would need to have physical presence in Indonesia[63].

Indonesia's SME constraints to internationalisation and integration to global value chains (GVCs)

[59]European Commission, The EU Proposal on Small and Medium-sized Enterprises (SMEs), 2017, available at: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155294.pdf
[60] APEC Policy Support Unit, SME Market Access and Internationalization: Medium-term KPIs for the SMEWG Strategic Plan, 2010, available at: https://www.apec.org/Publications/2010/06/SME-Market-Access-and-Internationalization-Mediumterm-KPIs-for-the-SMEWG-Strategic-Plan-June-2010
[61] Embassy of the Republic of Indonesia, 2015, "What makes e-commerce work in Indonesia?", accessed 11 December 2018 via: https://www.embassyofindonesia.org/index.php/2015/03/05/what-makes-e-commerce-work-in-indonesia/
[62] myBusiness.com, 2015, "Online retailing in Indonesia: what SMEs should know", accessed 11 December 2018 via: https://mybusiness.singtel.com/techblog/online-retailing-indonesia-what-smes-should-know
[63] EuroCham Indonesia, "Business Inputs Towards Comprehensive Economic Partnership Agreement", Stakeholder Contribution

The latest SME competitiveness survey[64] offers some valuable insights into the ability of Indonesian SMEs to participate in global markets and to integrate to global supply chains. The survey finds that SMEs face a disproportionate challenge in connecting to larger companies and markets.

In terms of firm level constraints for Indonesian SMEs, the main issues concern problems in maintaining a strong web presence. For the micro companies, simple things like using emails or managing bank accounts could become insurmountable. SMEs also report having issues with acquiring necessary quality certificates as well as complain about limited access to staff training programmes. In terms of the business ecosystem, SMEs are generally averagely satisfied with the services provided by domestic services providers. Also, complying with domestic regulations does not seem too burdensome.

Many SME's and MSMEs in Indonesia are owned by women, with certain estimates totalling 50 per cent of Indonesian micro, small and medium enterprises (MSMEs) being led by women.[65] Yet, due to prevailing gender-inequality, these companies often operate in low-value added sectors and are often smaller in size. The survey conducted by International Trade Centre reveals that being a women-owned company often negatively affects the credibility of the business making it harder to raise start-up funds and attract clients and business partners.[66] Due to more conservative views on gender roles and the above-mentioned issues, women-owned businesses find it much harder to internationalize or to integrate into global value chains.

Impact analysis

According to the CGE model analysis, both the conservative and the ambitious liberalisation scenarios offer internationalization opportunities as well as integration opportunities to global value chains for both parties across various sectors. The following section describes the main impacts on SMEs in different sectors.

It is estimated that around 80 per cent of companies operating in the textiles, apparel and leather sectors in the EU are SMEs. The CGE model projects some decline in output in the EU's textiles, apparel and leather sectors, and hence increasing competition for the SMEs operating in those. Eventually, some SMEs might require assistance in reskilling and retooling in order to be able to find a niche or move onto other more lucrative sectors. The CGE model estimates some expansion in global EU exports that may partially dampen the effects for internationalized SMEs, while exposing domestic competing SMEs more strongly.

At the same time, the EU motor vehicles and parts sector as well as machinery sector are likely to see positive impacts due to the prospective FTA. Especially in the EU the sector would see increases in export and output. The automotive sector in the EU employs a higher proportion of its workforce in large companies than in SMEs, which only occupy about 18 per cent of the workforce in automotive sector.[67] The expansion of the sector in the EU would lead to more opportunities for SMEs. On the other side, the output of the motor vehicles and parts sector and of the other machinery sector in Indonesia would, according to CGE model results, decline with 1.7 per cent and 1.1 per cent. This probably would be caused by the increased

[64] International Trade Centre, 2017, "SheTrades: Promoting SME Competitiveness in Indonesia", p. 2, ITC, Geneva, accessed 27 November 2018 via: http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/SheTrades%20Women%20Indonesia%20final_Low%20res.pdf
[65] Ibid
[66] Ibid
[67] Ibid

import and increased competition from EU companies in the sectors. It is important to continue efforts to foster a conducive environment for SMEs in Indonesia to participate in the automotive supply chains, particularly by further strengthening standards, reliability and delivery times, would make these companies more resilient towards foreign competition.

For Indonesia, the CGE model projects the largest export gains to be in the leather, textiles and wearing apparel sectors. Since over 90 per cent of Indonesia's workforce in these sectors is employed by SMEs[68], the Indonesian SMEs are expected to see positive impacts in all three sectors. As suggested in **Chapter 3**, Indonesian SMEs are likely to further integrate into global value chains and thus the producers of intermediary goods are likely to see the largest positive impacts. According to the CGE model's results, Indonesian SMEs could also see positive impacts in the forestry and food sector as well as in the electronics sector.

At the same time, the automotive and parts sector, as well as the machinery sector are predicted to experience increased competition from the EU according to the CGE model and may therefore require flanking measures and support in meeting stronger standards compliance and improved delivery systems.

Improving SME participation in GVCs through the FTA

Since the majority of Indonesian SMEs are family-run micro companies focusing mainly on the domestic market, the main gains to Indonesian SMEs are likely to come through integration into EU's global value chains.

SME participation in GVCs depends on a variety of factors. A lot of these factors are driven by the business eco-system, the macro-economic environment and firm level performances, while other factors can be supported by the FTA, including standards, logistics and trade facilitation, tariff costs, networking, investment and trade information. The FTA presents opportunities, if harnessed effectively for improving the conditions for SMEs to better participate in GVCs.

According to a survey of multinational corporations (MNCs)[69], a few critical factors limit their ability to source from SMEs in LDCs or developing countries. In the field of agriculture, this mainly concerns access to inputs (logistics and transportation), customs procedures, trade licensing requirements and inconsistent supply capacity. Half of these constraints can be effectively tackled through an FTA and cooperation between the FTA partner countries. In the case of textile exporters, the number of critical constraints that can be overcome by the FTA is even higher.

Table 15: Example of Developing Country SME Constraints for GVC Participation

Agriculture	ICT	Textile	Tourism
Inadequate airport, maritime or transport capacity; Transportation costs and delays;	Lack of transparency in regulatory environment; Export-Import licensing requirements;	Customs procedures; Export-Import licensing requirements; Inability of	Access of suppliers to finance; Business environment; Insecurity;

[68]Asia Pacific economic Cooperation Committee on Trade and Investment, "Promoting the Participation of Small and Medium Enterprises in the Global Textile and Apparel Value Chains", 2016.
[69] Arudchelvan, M. & Wignaraja, G. (2015). SME Internationalization through Global Value Chains and Free Trade Agreements: Malaysian Evidence. *Working Paper No. 515*, Asian Development Bank Institute: Tokyo

Customs procedures; Export-Import licensing requirements; Inadequate supply and/or inconsistent quality	Inadequate telecommunications networks; Customs procedures; Import duties	suppliers to meet order delivery times; Border procedures; Shipping costs and delays	Inadequate sanitary or quality controls of local food suppliers; Visa regimes for foreign tourists

Note: Response to questions posed to MNCs of sourcing from SMEs[70]

Non-tariff related impacts

SMEs tend to be more affected by the results of the negotiations in non-tariff related measures (NTM) than their larger counterparts, because the fixed costs of complying with regulations and other measures are higher for SMEs than for larger firms as they have less financing available and a limited economy of scale benefit for such investments. Thus, the reduction of NTMs in the framework of the FTA, as well as further convergence towards international norms and standards, would bring particular benefits to SMEs.

As explained in **Chapter 7.3**, EU producers can be expected to benefit from the stronger IP protection in Indonesia resulting from the FTA, since harmonized IPR standards would reduce the costs associated with IP management (including filing, monitoring and enforcement of rights), which can translate into increased trade in IPR-intensive products from the EU into Indonesia, as the confidence of EU producers rises. Adding to this, strong IP enforcement in turn can put pressure on Indonesian SMEs and other producers that rely on copying original technology.

With regards to non-tariff related measures, some stakeholders have pointed out that the EU-Indonesia FTA should aim for facilitation of customs and import-export procedures. Complicated and costly customs and import-export procedures disproportionately affect SMEs, as the costs of compliance and administrative burden would be higher for them as they do not benefit from the economies of scale. With many quality standards to apply in different scenarios, for many Indonesian SMEs and MSMEs picking the most value-adding one can be a hurdle in the way of being able to operate internationally. This is especially important as information on standards is not always readily available for SMEs on both sides, and it has been pointed out that a lack of coherence among Indonesian government institutions prevents a clear picture to arise.[71] An additional challenge concerns the fact that these standards are not always recognized internationally.

In its annual position paper, the European Chamber of Commerce in Indonesia has pointed out that the Indonesia National Standard (SNI) is the only standard which is currently nationally applicable across Indonesia. The standard covers more than 270 products including electrical, wood, rubber, automotive, healthcare and agricultural products, as well as toys, clothing and certain household items (such as

[70] Arudchelvan, M. & Wignaraja, G. (2015). SME Internationalization through Global Value Chains and Free Trade Agreements: Malaysian Evidence. *Working Paper No. 515,* Asian Development Bank Institute: Tokyo

[71] International Trade Centre, 2017, "SheTrades: Promoting SME Competitiveness in Indonesia", p. 15-16, ITC, Geneva, accessed 27 November 2018 via: http://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/SheTrades%20Women%20Indonesia%20final_Low%20res.pdf

towels for example).[72] The mandatory certification process is claimed to be rather lengthy and complicated, as well as costly, especially for the SMEs who face the additional costs of having to understand the regulations when they are not able to hire an agency to take care of the matter. Thus, stakeholders have recommended a greater harmonization with international standards or even recognition of international standards as well as some degree of self-regulation. It remains to be seen to which extent the FTA will eventually include disciplines on the convergence of customs and import-export regulations towards international regulations and standards.

European stakeholders have also pointed out that with regards to technical barriers, one concern is the uncertainty which exist with the scope of Indonesia's Halal Product Assurance Law, which could affect all products imported to Indonesia if fully implemented. In its position paper, the European Chamber of Commerce in Indonesia points out that the *"mandatory nature of the Halal Law could restrict importers, especially smaller operations and SMEs, which do not possess the means with which to transform their entire production and distribution chains in order to suit the labelling, production, storage and transportation requirements of the Halal Law."*[73] Some stakeholders have recommended that the FTA should advocate for greater cooperation, transparency and availability of information in the area of technical regulations, as well as allowance of sufficient time for complying with the technical regulations, which would be important for the SMEs that lack the capacity to adapt quickly to changes.

Some of the European stakeholders are also concerned about Indonesia's minimum investment policy for obtaining a permanent business license in Indonesia, which amounts to IDR 10 billion (approx. €600 000) and which is seen as an investment barrier, which especially impacts SMEs as they have difficulties of committing to large investments.

For Indonesia's exports to the EU market and especially for the SMEs, Export Quality Infrastructure (EQI) tend to be most challenging. These issues relate to the system used to meet EU import standards and requirements, certification of products and management systems, competence of laboratories related to export, accreditation of laboratories and metrology and inspection[74]. These issues particularly concern operators in the fisheries, agri-food and consumer electronics sectors. Some stakeholders have recommended training and coaching measures for the SMEs to be able to increase their compliance with EU market access requirements.

Additionally, while European SMEs account for 88 per cent of the EU's exports, Indonesian SMEs (employing over 90 per cent of country's workforce and contributing over 50 per cent to its GDP) account for only 15 per cent of Indonesia's exports.[75] Stakeholder consultations complemented by study findings reveal that Indonesian SMEs and especially micro enterprises lack the awareness and know-how of exporting, especially outside the ASEAN region. Thus, even with

[72] European Chamber of Commerce in Indonesia, "Import-Export Procedures" – *Eurocham Position Paper, 2018*, available at: http://www.eurocham.id/index.php/publications/category/365-eurocham-position-paper-2018.html

[73] European Chamber of Commerce in Indonesia, "Halal Law" – Eurocham Position Paper, 2018, available at: http://www.eurocham.id/index.php/publications/category/365-eurocham-position-paper-2018.html

[74] Montague Lord, Rina Oktaviani, EdzardRuehe "Indonesia's Trade Access To the European Union: Opportunities and Challenges" European External Action Service, http://eeas.europa.eu/archives/delegations/indonesia/documents/press_corner/tradeaccess_report_en.pdf

[75] APEC Policy Support Unit, SME Market Access and Internationalization: Medium-term KPIs for the SMEWG Strategic Plan, 2010, available at: https://www.apec.org/Publications/2010/06/SME-Market-Access-and-Internationalization-Mediumterm-KPIs-for-the-SMEWG-Strategic-Plan-June-2010

improvements on the clarity and accessibility of regulations and alignment with relevant international standards, the benefits for Indonesian SMEs in terms of export opportunities might not fully materialise. To mitigate this, some chambers of commerce have advocated for establishing cooperation mechanisms aimed at offering training and coaching for Indonesian SMEs, especially micro enterprises, for instance in the fisheries and palm oil sectors.

Furthermore, unfamiliarity with each party's regulations and import-export procedures further discourages both European and Indonesian SMEs from internationalizing. Stakeholders have also pointed out that lack of awareness on opportunities in each partner's market could potentially diminish the expected positive impacts from tariff reductions under the FTA for both European and Indonesian SMEs.

The respondents to the SME survey have pointed out access to finance, administrative requirements, customs procedures, infrastructure, SPS and TBT measures, as well as corruption as very important barriers that they are currently facing in EU-Indonesia trade, and hope that the prospective FTA could address these issues. One of the SMEs has also stressed the need to apply international standards both in Indonesia and in the EU. Furthermore, lack of easy access to qualified workforce in Indonesia has also been pointed out as a hindering factor for doing business with Indonesia in the SME survey.

Finally, FTA provisions on e-commerce could be beneficial for SMEs both in Indonesia and in the EU. This depends however on the extent of liberalisation of the sector. FTAs can play a role in three main ways: increase market access, clear rules and regulations and facilitate trade in e-commerce. Market access and clear rules and regulations are the most important provisions for SMEs as reduction of customs duties and clear rules for protection of intellectual property rights could increase the likelihood of European SMEs entering Indonesia's market and Indonesian SMEs integrating into EU's global supply chains. One challenge for Indonesian SMEs operating in e-commerce for entering the EU market or integrating into EU's global supply chains is the necessary compliance with GDPR as Indonesian SMEs are not familiar with these rules. Furthermore, stakeholders are recommending that the potential section of the prospective FTA on e-commerce takes a so-called 'light-touch' approach imposing regulations only when absolutely necessary[76].

3.6 Trade Facilitation (capacity of Customs Authorities to implement the RoO and the use of international standards)

3.6.1 Capacity of customs authorities to implement the rules of origin

Overview and baseline

Rules of origin (RoO) establish whether a good can benefit from the reduction or exemption of custom duties when traded between two signatories of a free trade agreement, enabling the access to respective markets under its preferential duty rates.[77] Burdensome procedural requirements to certify origin have the potential to decrease the benefits of a preferential liberalised trade regime due to associated costs, potentially leading to exporters foregoing procedures and export under non-

[76] EuroCham Indonesia, "Business Inputs Towards Comprehensive Economic Partnership Agreement", Stakeholder Contribution

[77] European Commission. 2017. *Trade Negotiations between the European Union and Indonesia. EU Proposal on Rules of Origin Explanatory note - February 2017*. Available at http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155290.pdf

preferential tariff regimes. The impact of a prospective EU-Indonesia FTA will hence be heavily influenced by the nature of the procedures and administrative capacity of customs authorities.

The launch of the Customs and Excise Reform Team by the Indonesian Ministry of Finance in the second half of 2016 contributed to simplifying and streamlining administrative procedures, shifting parts of the supervision mechanism to a post-border stage and minimising unnecessary requirements. Among other planned reforms, the Indonesia National Single Window (INSW) is anticipated to be strengthened as a nationwide integrated system for supervising and implementing customs procedures into the ASEAN single window. Furthermore, Indonesian authorities aim to reduce dwelling times to less than 24 hours.[78] Efficiently implementation of origin certification remains to be strengthened, ensuring a predictable trade environment for the current stage of the ASEAN Economic Community and increasing Indonesia's competitiveness.

The European Union aims to work towards a single set of product-specific rules, guided by the principles of non-alteration[79], self-certification[80], administrative cooperation[81] and cumulation[82].

Administrative procedures

In the case of imports to Indonesia under preferential tariffs treatment, the latest procedures for FTA/EPA are established under Indonesia's Ministry of Finance *Reg. No.229/PMK.04/2017 on Procedures for the Imposition of Import Duty under International Agreement or Treaty Frameworks*. In order to obtain preferential tariffs, the importer of goods should prove compliance with the RoO by providing a Certificate of Origin (CoO) at the time of import. Alternatively, origin could also be proved by an invoice declaration issued by a certified exporter which has been previously recognized under the self-certification scheme; E-form D as per the ASEAN Single Window (ASW); or Back-to-Back CoO (Movement Certificate).
For exports from Indonesia, current procedures for preferential and non-preferential trade require a CoO as established by the *Indonesian Law No. 59 of 2010*.[83] The CoO (*Surat Keterangan Asal* - SKA) is a document that proves a certain export product has fulfilled the Rules of Origin and should be obtained by the exporter before exporting the product. [84]

Impact Assessment

According to business stakeholders, current implementation of certifying procedures in Indonesia lacks efficiency and predictability. The most common concern is the lack of uniformity among different custom authorities across the country in

[78] European Business Chamber of Commerce in Indonesia. *Import-Export Procedures*. *Eurocham Position Paper 2018.* Available at http://eurocham.id/publications
[79] Goods should preserve preferential custom treatment after transiting through third countries under the condition that they have not been altered, transformed or suffered operations other than preservation, labelling, sealing and compliance documentation.
[80] Registered exporters (REX) should be able to self-certify through the means of a simplified system and enjoy preferential treatment without approval from exporting country' authorities.
[81] Communication and cooperation at administrative level in order to verify the correct application of the rules of origin for the goods traded between relevant authorities involved.
[82] Under certain conditions, goods manufactured on the territory of party A using materials or components supplied by party B should also enjoy preferential treatment when exported to B.
[83] Indonesian Government, 2010, "Indonesia Export Certificate of Origin Requirement Ministry of Trade Regulation No. 59 of 2010", available via http://www.gbgindonesia.com/en/main/useful_resources/documents/regulations/Indonesia%20Export%20Certificate%20of%20Origin%20Requirement%20Ministry%20of%20Trade%20Regulation%20No.%2059%20of%202010.pdf
[84] EU-Indonesia Business Network. 2017. Business Guide Vol. II – How to Export and Source to and from Indonesia. Available via *http://eibn.org/en/page/bizguide_content/2*

understanding and applying current regulations and requirements. [85] Issues mentioned by stakeholders as requiring particular attention include the following:

- Different interpretations among custom authorities regarding the criteria for establishing that a good is "wholly obtained" in a specific country.
- The time frame to submit the Certificate of Origin for imports into Indonesia, limited to an insufficient 2-5 days (depending on the company's recognition status by the customs). Custom authorities have inconsistent interpretations of the allocated time frame, especially during weekends and national holidays. This causes delays and invalidations of the CoO by the Customs and Excise Service Office. Furthermore, sudden and unannounced implementation of these new provisions caused a lack of awareness among importers and logistics companies, resulting in late submissions of the CoOs.
- Authorities lack an efficient electronic administration system to monitor and follow the status of submission and acceptance of a CoO. Such a system would enhance transparency and would be used by all sides, including importers, freight forwarders and custom officers.
- A Voluntary Declaration Program (VDP) procedure is missing, which would allow obtaining a refund by submission of CoO within 1 year. Such a procedure could be inspired by other ASEAN members, as well as New Zeeland.
- In practice, the provided pre-notification facility cannot be used before the original CoO is accepted, especially in the case of shipments from countries within short distance. Other pre-arrival clearance procedures should be further established, especially for time-sensitive consigned goods.
- A trans-shipment category into Indonesia's custom-information system is lacking, preventing same-day operations.
- The lack of consistency between Customs and Excise Service Offices for accepting letters of statement from the carrier in case of transit and transhipment.
- New regulations provide that non-manipulation certificates from transit authority (which are difficult to obtain) are no longer mandatory and could be replaced by other supporting documents. Customs officers do not always have the same interpretation with the Customs Main Office however, and sometimes still require this document. This is especially the case for imports of cargo/containers that use Hong Kong as a trans-shipment hub (and which is difficult to obtain from Hong Kong authorities in practice).
- Customs-clearance automation is only available in a limited number of ports across the country, which hinders its efficiency and predictability.

While significant progress in improving administrative procedures has been achieved, there are still issues hindering the process of certifying rules of origin under preferential and non-preferential trade regimes. Scope to simplify and streamline procedures remains, especially to reduce unnecessary delays for time-sensitive products. Further effort should be made to increase procedural uniformity between different custom and excise service authorities. Finally, better dissemination of requirements and a transparent electronic system for monitoring CoO status would improve RoO procedures.

3.6.2 Use of international standards

Baseline

Regulations for goods and services in the EU and Indonesia share similar goals, namely, to protect consumers and to enhance the quality of products on the

[85] Kadin Indonesia, APINDO and EuroCham, 2017, "Indonesia-EU Business inputs toward comprehensive economic partnership agreement"

market. However, the existence of different standards and testing procedures creates an important obstacle to trade, increasing the cost of compliance, certification and conformity for both importers and domestic producers. According *to Law No. 20 of 2014 on Standardisation and Compliance Assessment,* The Indonesian National Standards (SNI) is the only standard nationally applicable in Indonesia. It covers technical regulations, certification and testing procedures that apply to both imported and domestic products. While the purpose of the SNI is to maximize customer satisfaction, it also has the potential to restrict trade and give preference to local products.[86] In fact, SNI is frequently perceived in Indonesia as an indispensable non-tariff barrier, protecting local market against imported goods.[87] According to the National Standardization Agency database, currently there are approximately 9,000 voluntary SNIs in force. SNIs are not mandatory except for products closely related to issues of safety, security, health and environmental protection. Mandatory SNIs can also be applied for economic considerations. To present, there are approximately 270 mandatory SNIs and the number is increasing:

• Fertilizers and petrochemicals • Automotive parts • Tires • Lubricants • Textiles - Baby clothing - Towels - Athletic shoes - Leather goods • Toys • Diapers • Helmets • Bicycles • Medical equipment and healthcare	• Ceramic tiles • Cement products • Basic metals, iron and steel • Wood • Rubber • Glass for building • Toilets, water pumps • Food and beverages Mineral and bottled water - Sugar, biscuits - Palm oil - Cacao powder - Instant coffee • Paper and Paperboard for food packaging	• Electric and electronic products - Lamps, cables, switches - Video electronic apparatus • Household electrical appliances - Refrigerators, washing machines, ice makers - Fans and air conditioners - Heat pumps - Batteries, lighters, mirrors • Cosmetics

All products falling in the category of mandatory SNI must be certified and labelled by a certification body acknowledged by the Ministry of Industry. This process is rather lengthy and complicated, adding substantial burdens and costs for businesses, further hindered by the insufficient number of testing facilities and limited qualified personnel.

Overall, process lead time for SNI certification takes approximately two months.[88] The first step is pre-transport inspection for every shipment, requiring an Indonesian officer to collect samples at the port of origin. The official's travel costs are supported by the exporting company. Longer lead times result into higher stock holdings and shipments delays, as transport can only commence after all needed documents are approved. Regulations specify that testing in overseas laboratories

[86] EU Trade Market Access Database. *Technical barriers to trade (TBT) : Halal Law and National Indonesian Standards (SNIs).* Last updated on 4th May 2018. Available at: http://madb.europa.eu/madb/barriers_details.htm?barrier_id=11120
[87] European Business Chamber of Commerce in Indonesia. *EuroCham Position Paper 2018: Retail Working Group.* Available via: http://eurocham.id/publications
[88] Ibid.

can be accepted on the basis of bilateral mutual-recognition agreements, but currently the number of such agreements in force is very low. In practice, in most of the cases, testing can only be undertaken in Indonesia, which poses further challenges such as costs for the transport of samples to Indonesia, difficult customs clearance procedures for samples which are not yet certified and SNI fees charges of approximately IDR 60-200 million per certification. Finally, due to the fact that shipment tax numbers must be printed onto SNI labels and tax numbers can only be obtained after all documents have been received, the SNI label can be affixed only after shipments arrive in Indonesia. Implicitly, every single good needs to be operated manually two times, once before and once after the import. Considering such difficulties and uncertainties surrounding inspections and dwelling times, both exporting and importing companies tend to plan and budget on the basis of worst-case scenarios. This adds a direct significant cost to the Indonesian consumer.

Expenditure is equally substantial for Indonesian exporting companies, as they need to comply with national standards in addition to international ones. The costs of compliance are higher when standards differ, but they are significant even in cases where SNI requirements are similar to international standards. In such cases, for the same set of requirements, companies still need to pay for two different sets of compliance tests. This ultimately increases the price of exported products from Indonesia and reduces the country's competitiveness on international markets. Such costs disproportionately affect SMEs, as they do not possess the advantage of scale economy.

Industry and goods with high compliance burdens

Food (animal and plant origin)

In the food sector particularly, there are enduring uncertainties regarding possible developments on the implementation of the Halal Law, which is perceived as overly-restrictive and having the potential to raise costs for both businesses and consumers, as well as produce difficulties in supply chains. Currently, all imported meat and dairy products must be halal-certificated. Other bakery products and ingredients also have mandatory SNI provisions, including wheat flour, fruit jam, rice flour, tapioca flour, fruit puree, shortening ingredients and cacao based products (butter, mess, powder, and compound), biscuits, sweet breads and white bread.[89] Indonesia could aim to promote harmonization with other internationals standards such as Codex Alimentarius – developed by FAO and WHO and recognized by WTO – which also contains dedicated guidelines for halal requirements.[90] While Indonesia has explicitly stated at the WTO TBT Working Committee that Halal Law follows the Codex, in practice there are many contradicting provisions.

Automotive products

Indonesia has not yet signed up to the United Nations Economic Commission on Europe (UNECE) 1958 Agreement which sets international standards for automotive products. Therefore, BSN applies mandatory national standards and tests for a variety of automotive products such as rims, wheels and safety glass, despite the fact that such products have previously passed similar certification processes in producing countries. In fact, standard certification requirements in the EU are

[89]National Standadisation Body (BSN). *SNI List (67-04 Food and Beverage).* Available at: http://sisni.bsn.go.id/?/sni_main/sni/index_sniptspt/878

[90] European Business Chamber of Commerce in Indonesia. *EuroCham Position Paper 2018: Halal Law.* Available at: http://sisni.bsn.go.id/?/sni_main/sni/index_sniptspt/878

similar or even stricter than those applied in Indonesia.[91] Therefore, different domestic automotive standards hinder bilateral trade by creating unnecessary burdens for both European and Indonesian manufacturers. SNI compliance appears to be a burdensome process, requiring complicated testing procedures, while just a few certified facilities are available for testing. Mandatory SNIs increase costs and create delays in releasing new products.[92]

A particular difficulty for European automotive businesses in Indonesia is to ensure the necessary supply of safety glass. Import requirements are overly restrictive, whereas low demand makes local production not economically viable. Nevertheless, European-produced safety glass complies fully with UNECE, the corresponding international standard, which has very similar requirements with the SNI.[93]

Cosmetics

In 2003, Indonesia joined the *ASEAN Harmonized Cosmetic Regulatory Scheme* (AHCRS), under which Member Countries accepted to move from "pre-market approval" to "post-market surveillance" of cosmetics products.[94] In spite of the *AHCRS* and the *ASEAN Cosmetic Directive* (ACD) however, a number of contradicting national regulations still apply such as halal certification and extra testing for heavy metals.[95] Currently, there are no agreed international halal standards for cosmetics. As such, products either recognized as halal or non-halal in Indonesia will encounter different treatment in other Muslim countries.

Another pertaining issue is the requirement for heavy-metal testing (Certificate of Product Analysis) imposed on imported cosmetics by a BPOM circular letter of 2016. However, the *Certificate of Good Cosmetics Manufacturing Practices (Cara Pembuatan Kosmetik Yang Baik/CPKB)* amended by BPOM *Regulation No. 17/2014* already guarantees that products from non-ASEAN countries have met required safety, efficacy and quality requirements and further screening continues through post-market surveillance. Furthermore, heavy-metal requirements apply differently for domestic and foreign products: testing can either be undertaken once or proven by other supporting documents that address content of materials for domestic products. In the case of imported products, testing needs to be undertaken for all first shipments.

This can therefore contribute to significant delays in processing times, while testing fees add financial burden on cosmetic companies. Longer product-launching schedules will push the market behind in terms of trends, possibly contributing to consumer dissatisfaction. Such barriers will also affect the competitiveness of the Indonesian cosmetic industry and potentially discourage European companies investing in Indonesia.

Chemicals is one of the areas that will be affected most immediately and broadly by the upcoming implementation of the Halal Product Assurance Law. An immediate issue is the lack of infrastructure readiness for the halal-certification process.

Halal Product Assurance Law No 33

[91] European Business Chamber of Commerce in Indonesia. *EuroCham Position Paper 2018: Automotive.* Available via http://eurocham.id/publications
[92] EU-Indonesia Business Network. 2015. *EIBN Sector Reports – Automotive.* Available at http://indonesien.ahk.de/fileadmin/ahk_indonesien/Publications/EIBN/EIBNSecRep2015_Auto_FULL.pdf
[93] European Business Chamber of Commerce in Indonesia. *EuroCham Position Paper 2018: Automotive.* Available at: http://eurocham.id/publications/775
[94] Information about the *ASEAN Harmonized Cosmetics Regulatory Scheme* is available at www.asean.org/storage/images/archive/19014-2.pdf
[95] European Business Chamber of Commerce in Indonesia. *EuroCham Position Paper 2018: Cosmetics.* Available at: http://eurocham.id/publications/775

The *Halal Product Assurance Law No. 33* of 2014, Halal Law in short, covers the compulsory certification of products as 'Halal' before entering the Indonesian market.[96] All goods categorized as food, beverages, chemicals, medicine, cosmetics, biological products, genetically modified and other associated goods distributed in the Indonesian market must be halal-certified. Even though the law was signed in 2014, the law is expected to enter into force by 2024. Below a short summary of the changes can be found.

The establishment of the Halal Product Assurance Agency (BPJPH) can be seen as the centrepiece of this law. This agency will be responsible for the oversight of correct halal certification of all products[97] sold in Indonesia thereby replacing the Muslim Authority of Indonesia (MUI).[98] BPJPH will have the authority to formulate policies concerning the halal product guarantee program, establish the criteria and procedures for this trademark, issue and annul halal certificates of foreign products, and register halal certificates of foreign products.[99]

Concerns for business relates in particular to the potential of the law to conflict with WTO TBT rules, hamper trade and endanger inbound investments thus implicating businesses in especially cross-border trade.[100] A first issue is the fact that currently there are no comprehensive international standards for halal certification. Under the Halal law Indonesia will only acknowledge certification if there is cooperation with the foreign government on this matter.[101] However, as international halal-certification requirements refer mostly to food and beverages, there are very few international halal-certification institutions that would be comprehensive enough to engage with Indonesia in mutual recognition agreements for non-food and non-beverage goods.[102] Therefore, a product labelled as halal or non-halal in other countries might not be recognized in Indonesia.

Another issue of concern is current institutional capacity: according to data from LPPOM-MUI, at present there are only 957 auditors available to assess halal requirements for a potential of 22,000 pharmaceutical products, 109,000 cosmetics and over 3 million food and beverage products.[103] A requirement is that halal supervisors are Muslim by religion, which for many trading partners is difficult to comply with due to a small number of eligible citizens. This leads to possible delays in certification, while also costs of segregating halal and non-halal products for storage implies additional costs often passed on to the consumer.

[96] Setiawan, A., Sekretariat Kabinet Republik Indonesia, 9 November 2014, Law Number 33 of 2014: Government Must Establish halal Product Guarantee Agency, available via http://setkab.go.id/en/law-number-33-of-2014-government-must-establish-halal-product-guarantee-agency/

[97] Halal certification is mandatory under this law for all foods, beverages, drugs, cosmetics, chemicals, organic and genetically modified products, as well as the machinery and equipment involved in processing these products.

[98] Ministry of Agriculture of the Netherlands, 13 April 2018, Halal Update: Indonesia Streamlining Halal Certification through New Government Agency (BPJPH), available via https://www.agroberichtenbuitenland.nl/actueel/nieuws/2018/04/13/halal-update-indonesia-streamlining-halal-certification-through-new-government-agency-bpjph

[99] Setiawan, A., Sekretariat Kabinet Republik Indonesia, 9 November 2014, Law Number 33 of 2014: Government Must Establish halal Product Guarantee Agency, available via http://setkab.go.id/en/law-number-33-of-2014-government-must-establish-halal-product-guarantee-agency/

[100] European Business Chamber of Commerce in Indonesia. *EuroCham Position Paper 2018: Retail Working Group.* Available via: http://eurocham.id/publications

[101] Ministry of Agriculture of the Netherlands, 13 April 2018, Halal Update: Indonesia Streamlining Halal Certification through New Government Agency (BPJPH), available via https://www.agroberichtenbuitenland.nl/actueel/nieuws/2018/04/13/halal-update-indonesia-streamlining-halal-certification-through-new-government-agency-bpjph

[102] European Business Chamber of Commerce in Indonesia. *EuroCham Position Paper 2018: Halal Law.* Available via: http://eurocham.id/publications

[103] Cited by European Business Chamber of Commerce in Indonesia. *Eurocham Position Paper 2018: Executive Summary.* Available via: http://eurocham.id/publications

Halal supervisors are legally required to be Muslims. However, many trade partner countries have small Muslim populations, and even smaller number of eligible citizens to perform such tests. Furthermore, the physical separation of finished products in terms of packaging and storage places an extra burden on logistics and manufacturing. The use of properly sealed packages and appropriate cleaning and administration processes should be regarded as sufficient in order to avoid any contact and contamination.

Furthermore, requiring separate facilities and installations for the manufacturing process of all halal products non-discriminatively is prohibitive and not viable for a large number of small and medium companies. Requirements should adapt to different categories of products and manufacturing processes, depending on the actual implied risk of contamination.

Impact assessment

Harmonization of Indonesian national standards with internationally accepted regulations such as the UNECE or ISO would simplify procedures, reduce compliance costs and increase competitiveness. Domestic business and investment environment would reap significant benefits from a less-costly SNI implementation. It is in the Indonesian interest to make SNI coherent with the international standard development so that the domestic market does not grow isolated from global markets and Indonesian industries integrate deeper into global supply chains. Therefore, Indonesia should consider enhancing its efforts to harmonize standards.

The FTA could possibly serve as a framework for this, by supporting Indonesian efforts towards a more efficient implementation of standards. Assistance would be especially useful to enhance the capacity of Indonesian testing facilities to meet and apply international regulations. Additionally, targeted technical assistance for Indonesian producers to meet EU's market requirements could also be a valuable approach.

Better alignment of testing and certification methodologies and laboratories with international standards would also be important. Indonesian recognition of samples undertaken directly by producers and testing by any laboratory accredited by an ILAC (International Laboratory Accreditation Cooperation) MRA signatory would benefit both FTA parties. Furthermore, Indonesia should also support domestic laboratories to obtain ILAC accreditation. Self-regulation and voluntary testing could be better encouraged while labelling requirements further simplified. Nevertheless, engaging in ASEAN Mutual Recognition Agreements, Indonesia would have the opportunity to further promote the recognition of SNI by other countries. This is especially important in the case of the automotive industry. Finally, domestic producers and exporters should better adapt their products to meet international requirements in order to be competitive on both Indonesian and external markets.

3.6.3 Product labelling in Indonesia

In Indonesia product labelling is compulsory for all imported goods. The most recent law for labelling products is No. 73 of 2015. In the following regulatory analysis, the main focus will lie on the duties of importers and less on the duties of domestic producers in Indonesia[104] as a prospective FTA will more likely impact importers primarily.

[104] The duties of domestic producers are more or less the same as for importers.

The overarching rule for labelling all products imported into the Indonesian domestic market is that the affixed label needs to be in Indonesian language as per *Law No. 73* of 2015.[105] This is the same for every packaged good that enters the market and the responsibility of the importing party. The name and address of the importer of the imported goods should always be visible on the label.[106] In case the importer has not complied with the provision, the goods can be withdrawn from circulation where all costs made are for the importer. In a worst-case scenario, the business license of the importer could be withdrawn.[107]

For food products additional regulation is in place. Under *Regulation No. 7 of 1996* it is compulsory to label and register all food products prior to being sold in Indonesia. [108] The national Agency for Drug & Food Control (BPOM) is responsible for the testing and registering of food products.

BPOM is also responsible for enforcing the abovementioned regulations. BPOM has listed several requirements for food packaging.[109] Like all other products, food packages should be labelled using the Indonesian language. At minimum, the label should include the following information: the name of the product, the registration number, the net weight or volume in metric units, a list of ingredients, date of expiry and the production date.[110] However, while quite a lot of products do not comply with the regulations, they still end up on the Indonesian market. The agency might not have enough resources today to handle breaches of regulations.[111] In Indonesia, currently consumer groups and competitors are the main groups who would raise awareness on violations on labelling standards.

In addition to the previously mentioned requirements for general labelling standards, some products have additional labelling requirements. Pork-based products, sweetened condensed milk, alcoholic beverages, irradiated packaged food and food derived from genetic engineering further specific sentences or phrases have to be added to the packaging explicitly stating the product contents.[112]

The packaging and labelling of Halal products is seen as very thorough, but at the same time it could be disadvantageous for importers due to the long waiting times for products to enter the market.[113] Under the Halal Law, labels need to be affixed to products that first are approved by BPOM and endorsed by the MUI (Muslim authority of Indonesia). Generally, halal-certification by authorities outside of Indonesia is not accepted under this law. EuroCham Indonesia has raised the concern that this could result in discrimination as products which are imported into Indonesia have to apply for halal-certification again in Indonesia, leaving

[105] Minister of Trade of the Republic of Indonesia, 2015, Law No. 73 of 2015, Obligation to affix label in the Indonesian language of Goods, available via http://jdih.kemendag.go.id/backendx/image/regulasi/20210704_Permendag_No_73_Tahun_2015.pdf
[106] Or, if not possible, in certain cases it is allowed to place the label inside the package.
[107] Minister of Trade of the Republic of Indonesia, 2015, Law No. 73 of 2015, Obligation to affix label in the Indonesian language of Goods, available via http://jdih.kemendag.go.id/backendx/image/regulasi/20210704_Permendag_No_73_Tahun_2015.pdf
[108] United States Department of Agriculture, 2010, Mandatory Labeling of Imported Food and Beverage products in Indonesia, available via https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Mandatory%20Labeling%20of%20Imported%20Food%20and%20Beverage%20Products_Jakarta_Indonesia_10-29-2010.pdf
[109] Ministry of Foreign Affairs of Indonesia, Food Safety standards in Major Export Markets: a Readymade Guide for Agro Exporters, available at https://www.kemlu.go.id/kyiv/Documents/indonesia_food_regulations.pdf
[110] Ibid.
[111] Ibid.
[112] Ibid.
[113] Eurocham Indonesia, 2018, *Eurocham Position Paper 2018 on Halal Law*.

internationally halal-labeled products at a disadvantageous position, vis-à-vis domestically halal-labelled products.[114]

[114] Ibid.

4. Overall Social Impacts

This section presents the overall social impacts of the prospective EU-Indonesia FTA. The approach prioritises those social impacts that have a direct relation to the FTA. As such, a key focus is on labour-related issues including wages and employment, and labour conditions. A sub-section is dedicated to poverty and inequality, a situation that not only influences labour-related issues but is also influenced by them. The potential social impacts presented also include intersectional themes such as gender, vulnerable groups and regional disparities.

The results of the study indicate that the prospective FTA is expected to lead to an increase in real wages as well as in GDP in both the EU and Indonesia, while bringing about notable shifts in employment in the most affected sectors. Most notably, employment in the garment textile and footwear (GTF) industry in Indonesia is expected to increase over 10 per cent, potentially leading to a significant creation of jobs, while in the EU the expansion in the automotive Industry could lead to the addition of approximately 2,800 skilled and unskilled jobs.

At the same time, concerns on working conditions in the GTF sector in Indonesia (e.g. low wages, low levels of minimum wage compliance, high levels of vulnerable type employment, and gender discrimination in wages) mean that if employment growth in these sectors is not matched with improved working conditions over time, a wider proportion of workers will risk being subjected to poor working conditions, thus highlighting the need for mitigation measures in parallel to the FTA.

The CGE model foresees that increased employment in some sectors would be coupled with decreased employment in other sectors. Therefore, the issue of skills mismatch in light of the sectoral shifts in employment under the prospective FTA also appears particularly noteworthy. While the EU is better positioned in terms of dealing with potential skills mismatch, Indonesia would need support in this area. Furthermore, tackling the problem of increasing income inequality as well as assuring women's job security will be topics of specific relevance for Indonesia.

Liberalisation scenarios and other elements of analysis

The CGE model has been employed to predict the potential impacts of the FTA for both a conservative and an ambitious liberalisation scenario. The results are then compared with the baseline scenario, which reflects the assumed situation in Indonesia in 2032 in the case that no agreement is in place. In particular, the CGE model aims to predict the expected change in import and export for the EU and Indonesia by sector, along with the expected change in output, wages and employment. While the impacts on wages and employment are analysed for both parties of the prospective FTA, the assessment of social impacts, focusing on several interrelated themes including labour conditions, inequality, poverty, health access, social protection, education and skills development is manly done from the perspective of Indonesia in relation to the EU, as the FTA is expected to have greater impact on Indonesia in these areas.

While the CGE model provides valuable assessments of how wages and employment levels may change under the FTA in comparison to a 'non-FTA', it remains unable to fully capture the complex social reality in Indonesia. Consequently, the analysis draws certain data for current trends and challenges in social development in Indonesia to elaborate on the impacts of the FTA. In line with SIA consultation methodology, the study incorporates the results of qualitative research methods, following interviews with key stakeholders and experts, as well

as findings from stakeholder engagement activities such as the SIA consultation workshop, to substantiate the analysis.

4.1. Wages and Employment

Baseline scenario

As detailed in the *Making Indonesia 4.0* plan, Indonesia aspires to become the tenth largest economy in the world and a net exporter by 2030.[115] Over this period, Indonesia is expected to experience a demographic dividend, with the ratio of the working population to the dependent population expected to increase. The creation of 32-40 million jobs over this period remains a key objective of the plan and would allow younger employees to be absorbed into the economy. At present, Indonesia has the fourth largest working population in the world. However, it also has a very low level of skilled workers within its workforce. Labour supply has been exceeding demand as job creation in the formal sector has not kept pace with the increase in the former. Agriculture, mining, services and transport sectors have all seen a slowing of employment growth. The growth of manufacturing is particularly important for boosting added-value in the commodity sector and diversifying exports. However, employment growth has only seen marginal increases between 2005 and 2014, despite an increase in output [116] – which has also affected wage levels in the informal sector. [117] If the trend of slow job growth continues, Indonesia faces the risk of lower labour force participation and higher unemployment rates for years to come.

While showing a declining trend in the labour distribution statistics, informal sector still constitutes a large pillar of Indonesia's economy and engages a vast amount of labour force (over 50 per cent of the total employment share). Furthermore, as noted by ADB, whereas the annual supply of labour is increasing by approximately 2 million workers, only 1 million new jobs are being created in the formal sector, leading to the dropping wages in the oversupplied informal labour market.

Wage levels for lower positions and for unskilled workers are a key concern in Indonesia. Even when regional level minimum wages are enforced, they may not provide workers with enough income to cover essential needs. Research from Oxfam in 2016 for example, revealed that the minimum wage covers only 84.7 per cent of real household expenditure in Tangerang, 87.2 per cent in Bandung, 60.3 per cent in Semarang, and 63.9 per cent in Yogyakarta.[118] In some instances, workers have reported receiving less than the regional minimum wage levels set by the government, due to poor enforcement of laws and weak bargaining power of workers – especially in factories where effective labour unions do not operate. Records show that in August 2001, approximately 21 per cent of regular employees received wages below the provincial minimum standards – a proportion which increased to 47.2 per cent by August 2015. Such a high proportion of non-compliance among regular employees indicates that minimum wages regulations currently do not provide an effective floor for wages. Steady increases in minimum

[115] Making Indonesia 4.0, accessed via: https://www.drn.go.id/files/2018/APRIL%202018/19042018-Presentasi%20FGD%20Lintas%20Komtek%20Pangan%20dan%20Energi%20DRN/Ir__Achdiat_Atmawinata_Making_Indonesia_DRN_Pangan_Energi_April2018_VersiLengkap_final_compressed.pdf

[116] Asian Development Bank, 2016, ADB Papers on Indonesia: Analysis of trends and challenges in the Indonesian Labour Market, accessed 14 August 2018 via: https://www.adb.org/sites/default/files/publication/182935/ino-paper-16-2016.pdf

[117] Ibid.

[118] The minimum wage is calculated based on the needs of 1.5 people, while in reality most workers are the main income earners in families of 4–5 people. OXFAM, 2017, OXFAM Briefing Paper – Towards a more equal Indonesia, accessed 7 August 2018 via: https://www.oxfam.org/sites/www.oxfam.org/files/bp-towards-more-equal-indonesia-230217-en_0.pdf

wages may in fact be contributing to weak employment growth while segmenting the labour demand.[119]

Despite a declining youth unemployment rate,[120] young Indonesians still face difficulties including: informal engagement in employment (approximately 50 per cent of work is in the informal economy); inactivity (19 per cent do not participate in the labour force or education); and long-term unemployment (those without employment for more than 12 months account for 42 per cent of unemployed youth).[121]

While minimum wages are guaranteed in the EU, there are national differences concerning the minimum wage and minimum wage adjustment.

Labour mobility

In comparative terms, Indonesia's pace of structural transformation, i.e. reallocation of resources across agriculture, industry, and services has been recognised as undergoing a positive pattern over the last few decades, if compared to other developing Southeast Asian countries.[122] Despite this, disproportionate emphasis on the value-added industries in Java at the expense of outer islands, as well as institutional mismanagement, contributed to the situation where Indonesia's labour market remains inflexible[123], a trend stagnating over the last decade.[124]

Women and the youth remain one of the most vulnerable groups in Indonesia for labour mobility, often dependent on unpaid family labour and informal sector positions, and not always using those as a stepping stone for finding formal jobs.[125] Unemployment among the youth is, consequently, on average several times higher than among the rest of the population.[126] At the same time, barriers to inclusion and labour mobility also persist for ethnic minorities (in e.g. Bali) and those living in politically-sensitive regions (such as Aceh).[127]

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[119] Asian Development Bank, 2016, ADB Papers on Indonesia: Analysis of trends and challenges in the Indonesian Labour Market, accessed 14 August 2018 via: https://www.adb.org/sites/default/files/publication/182935/ino-paper-16-2016.pdf

[120] From 32.7 per cent in 2005 to 21.6 per cent in 2013. See International Labour Organisation, 2016, Youth Employment Policy Summary, accessed 13 August 2018 via: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-bangkok/documents/publication/wcms_534262.pdf

[121] International Labour Organisation, 2015, Jobs and Skills for Youth: Review of Policies for Youth Employment of Indonesia, accessed 13 August 2018 via: https://www.ilo.org/employment/Whatwedo/Publications/WCMS_336130/lang--en/index.htm

[122] ILO, 2017, "Indonesia Jobs Outlook 2017: Harnessing technology for growth and job creation", accessed 21 February 2019 via: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_613628.pdf

[123] Heritage Foundation, 2019, "2019 Index of Economic Freedom" (Country profile: Indonesia), accessed 21 February 2019 via: https://www.heritage.org/index/country/indonesia

[124] Ibid. ("Labour freedom" indicator), accessed 21 February 2019 via: https://www.heritage.org/index/visualize?cnts=indonesia&type=10

[125] http://documents.worldbank.org/curated/en/446221467995100498/pdf/WPS7484.pdf See also World Bank, 2012, "Understanding children's work and youth employment outcomes in Indonesia", Working Paper, accessed 20 February 2019 via: http://documents.worldbank.org/curated/en/705201468044150898/pdf/NonAsciiFileName0.pdf

[126] Darian Naidoo, Truman Packard, and Ilmiawan Auwalin, 2015, "Mobility, Scarring and Job Quality in Indonesia's Labor Market", World Bank, accessed 21 February 2019 via: http://documents.worldbank.org/curated/en/446221467995100498/pdf/WPS7484.pdf, p. 11; cfr World Bank, 2018, "Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate)", accessed 20 February 2019 via: https://data.worldbank.org/indicator/SL.UEM.1524.ZS?locations=ID ; and World Bank, 2018, "Unemployment, total (% of total labor force) (national estimate)", accessed 20 February 2019 via: https://data.worldbank.org/indicator/SL.UEM.TOTL.NE.ZS?locations=ID

[127] Graham Brown, 2005, "Horizontal Inequalities, Ethnic Separatism, and Violent Conflict: The Case of Aceh, Indonesia", UNDP Human Development Report Office Occasional Paper, accessed 21 February 2019 via: http://hdr.undp.org/sites/default/files/hdr2005_brown_graham_28.pdf

A geographically cross-cutting issue for the labour mobility in Indonesia is the lack of infrastructure. Despite the strong trend of metropolitan industrial agglomeration in Indonesia's urban areas (i.e. cluster-like concentration of industries around the urban centres), sometimes the travel time, as opposed to the absolute distance between the workers' homes and their working place, can impede labour force mobility. Improvement in the transportation infrastructure, which has experienced federal under-investment, could not only facilitate better labour mobility, but also decrease logistics costs for the industries.

As freedom of labour movement is guaranteed in the EU, labour mobility has been increasing, with about 11.8 million movers in 2016[128]. There are equal opportunities for both female and male workers to move in search of jobs in the EU. Respondents to a survey carried out by Network Statistics FMSSFE have pointed out that there are linguistic, legal and administrative barriers that discourage labour mobility, however these were not found to be issues in terms of long-term labour mobility[129]. Furthermore, the EU has various programs like ERASMUS plus that ultimately support labour mobility.

Liberalisation scenario and impact assessment

Wages

At the macro-level, the results of the modelling exercise project that the agreement would lead to an increase in real wages in both the EU and Indonesia. Given the higher wages already enjoyed **in the EU**, the associated gains are far less significant both in a conservative and ambitious scenario The CGE model predicts a more significant impact of the agreement on wages **in Indonesia**: in a conservative scenario, unskilled labour real wages are projected to experience a 0.48 per cent growth, while those of skilled labour to experience a 0.64 per cent growth. These figures further increase to 0.53 per cent and 0.74 per cent respectively under an ambitious agreement scenario.

Employment and labour mobility

With respect to employment, the CGE model provides information on increases and decreases in employment through percentage changes. It thus becomes important to consider how this is reflected in absolute terms, as a small percentage of change may lead to large changes in a sector employing many people. At the same time, as any predictions of the precise absolute numbers of workers within a particular sector would be inaccurate also considering varying sector sizes, the CGE model considers only the most recently updated employment levels available for key sectors in assessing the potential impact on employment of the FTA. The resulting figures of changes serve only to provide general guidance on the magnitude of change that may be expected, rather than predictions on actual shifts.

Table 16: Changes in Employment under a Conservative and an Ambitious EU-Indonesia FTA for Selected Sectors

Changes in employment under a conservative EU-Indonesia FTA			Changes in employment under an ambitious EU-Indonesia FTA		
Sector	Change of unskilled employment (%)	Change of skilled employment (%)	Sector	Change of unskilled employment (%)	Change of skilled employment (%)
EU Rice	-0.167	-0.165	EU Rice	-0.707	-0.696
EU		-0.600	EU		-0.609

[128] European Commission, "2017 annual report on intra-EU labour mobility", 2018, available at: https://ec.europa.eu/futurium/en/system/files/ged/2017_report_on_intra-eu_labour_mobility.pdf
[129] Ibid.

Vegetable Oils and Oilseeds	-0.604		Vegetable Oils and Oilseeds	-0.613	
EU Textiles	-0.266	-0.266	EU Textiles	-0.262	-0.262
EU Wearing Apparel	-0.313	-0.317	EU Wearing Apparel	-0.314	-0.318
EU Leather and Products	-1.119	-1.107	EU Leather and Products	-1.120	-1.108
EU Motor Vehicles and Parts	0.09	0.09	EU Motor Vehicles and Parts	0.09	0.09
IDN Rice	-0.246	-0.077	IDN Rice	-0.198	-0.017
IDN Vegetable Oils and Oilseeds	-0.267	-0.110	DN Vegetable Oils and Oilseeds	-0.285	-0.120
IDN Milk & Dairy	-1.315	-1.193	IDN Milk & Dairy	-1.310	-1.182
IDN Textiles	2.413	2.589	IDN Textiles	2.412	2.598
IDN Wearing Apparel	9.776	10.010	IDN Wearing Apparel	9.762	10.005
IDN Leather and Products	11.859	12.020	IDN Leather and Products	11.894	12.063
IND Motor Vehicles and Parts	-1.95	-1.81	IND Motor Vehicles and Parts	-2.00	-1.85

Source: CGE results

Between 2012 and 2017, the **EU's textile and clothing sector** provided employment to approximately 1.69 million people to 1.73 million people respectively.[130] Although the EU is projected to shift production and employment away from this sector under both the conservative and ambitious scenarios of the CGE model, in both cases the shift seems to be relatively minimal, with approximately 0.3 per cent skilled and unskilled labour expected to move out of the sector. Based on current employment data, this translates into a relocation to other sectors of the economy for over four thousand workers employed in the EU's textile sector and more than five thousand workers in the clothing sector. Since 2009, the latter sector has seen a decline in the number of people employed (from approximately 2 million people in 2009 to 1.69 million people in 2017). As there is little evidence suggesting a significant sector expansion in the future, it is expected that the absolute number of workers leaving this sector as result of the agreement will remain in line with these estimations. With respect to the leather products sector the EU employs roughly 435,000 people.[131] The CGE model predicts that under both the conservative and ambitious agreement scenario 1.1 per cent of the sector's skilled and unskilled labour would be displaced and move into other areas of the economy, amounting to more than 4,800 workers in absolute terms.

The prospective FTA is also expected to have a major impact on **textile and clothing sectors in Indonesia**. As of 2016, around 4.2 million people were

[130]European Commission, "Textiles and clothing industries", accessed 20 August 2018 via: https://ec.europa.eu/growth/sectors/fashion/textiles-clothing_en
[131]European Commission, accessed 20 August 2018 via: https://ec.europa.eu/growth/sectors/fashion/leather/eu-industry_en

employed in the GTF industry in the country, accounting for 26.6 per cent of all manufacturing jobs.[132] Concerns exist as to working conditions in the Indonesian GTF sector, including low wages, low levels of minimum wage compliance, high levels of vulnerable type employment, high rates of inadequately-compensated overtime working hours and gender discrimination in wages.[133, 134, 135] Under both scenarios of the prospective FTA, the CGE model projects the workforce in the textiles sector to increase by 2.4 per cent in unskilled labour and 2.6 per cent growth in skilled labour and in the wearing apparel sector to grow by 9.8 per cent in unskilled labour and 10 per cent of skilled labour. As data on the distribution of employment across the specific areas of economic activity within GTF is unavailable, the previous heuristic of multiplying projected changes in employment by total employment cannot be used to determine the extent of potential job creation for the industry under the prospective FTA.[136] Using a lower bound projection of 3 percent, however, this would imply the creation approximately 126,000 jobs; with an upper bound of 7 per cent representing the creation of 294,000 jobs in Indonesia's GTF sector. This represents a significant creation of additional jobs. As garments and textiles are one of the priority sectors at the heart of the *Making Indonesia 4.0* plan, the EU-Indonesia FTA may, therefore, help Indonesia reach employment goals for the sector.

The textile sector has positively experienced localisation of production in Indonesia, spreading relatively evenly across the country's islands. Therefore, even though the CGE results show increases in both skilled and unskilled jobs in textiles, wearing apparel and leather products sectors, the industry can be expected to not experience an acute lack of access to labour force.

With respect to **Indonesia's leather and footwear industry**, available data estimates that over half a million people were employed in the sector as of 2017.[137] This allows the CGE model to estimate an expansion of unskilled labour of 11.9 per cent under both the conservative and ambitious scenarios; and of 12 per cent and 12.1 per cent respectively for skilled labour under the conservative and ambitious scenarios – translating into the addition of approximately 60,000 jobs in Indonesia's leather and footwear sector.

The **motor vehicles and parts** sector is another major contributor to **Indonesia's** employment, and it is also a priority sector under the *Making Indonesia 4.0* plan. The sector currently provides jobs for 1.33 to 3 million people in the country,

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[132]The International Labour Organisation, 2017, "Mixed picture for Indonesia's garment sector", accessed 5 September 2018 via: http://www.oit.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_625195.pdf

[133]International Labour Organisation, 2016, Asia-Pacific Garment and Footwear Sector Research Note, accessed 6 August via:https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_509532.pdf

[134]ILO, 2016, Gender pay gaps persist in Asia's garment and footwear sector, accessed 6 August 2018 via: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_467449.pdf

[135]International Labour Organisation, 2017, Mixed picture for Indonesia's garment sector, accessed 8 August 2018 via: http://www.oit.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_625195.pdf

[136]Updated figures for the level of employment in the wearing apparel and textile industry without the inclusion of footwear are not available. The sector categorization used in the CGE model is not an exact match with the categories for which data is available. Levels of employment in the sectors are not distinguished upon on the basis of skilled and unskilled employment, while the changes in the levels of employment in the CGE model distinguish between skilled and unskilled employment. Due to this mismatch, our analysis does not specifically distinguish between changes and skilled and unskilled employment but considers them both at the same time.

[137] Public Eye, 2017, No excuses for homework. Working conditions in the Indonesian leather and footwear sector accessed 20 August 2018 via:https://www.publiceye.ch/fileadmin/files/documents/CCC/20170216_FS_No_excuses_for_homework__Working_conditions_in_the_Indonesian_leather_and_footwear_sector.pdf

directly and through related sectors.[138] Across both modelling scenarios of the prospective FTA, it is estimated that employment in Indonesia's automotive sector will contract by approximately 2 per cent, resulting in a corresponding displacement of 26,600 to 60,000 workers based on current estimates. These figures are in contrast with employment growth expected **within the EU** as a result of the agreement, both under the conservative and ambitious scenario, of approximately 0.9 per cent in the manufacturing of motor vehicles and parts. In absolute terms, this represents the creation of approximately 2,800 skilled and unskilled jobs in the sector across the EU.

As seen from the CGE modelling results and as expected considering the long-declining ratio of GDP to employment in **Indonesia's agriculture sector**, the FTA is predicted to lead to a decreased number of jobs for agriculture workers in several sectors of agriculture. As Java and Bali – the islands accounting for only 7 per cent of the total land area but 60 per cent of the population – are very agriculture-intensive, with up to three crop rotations per year, they are most likely to take a quantitatively greater hit from the agriculture employment rates' decrease. Java (especially West Java and DKI Jakarta) dominates the Indonesian value-added manufacturing and offers a better horizontal mobility for those displaced in the agriculture sector.

In the rural areas of some outer islands, the combination of lacking infrastructure to move horizontally, and quality education/vocational training opportunities to move vertically, is already contributing to the persistent trend of underemployment. Consequently, 72 per cent of Indonesian migrants into other countries come from rural areas, as observed in a World Bank study.[139] A decrease in agriculture jobs – where informal workers constitute around 88 per cent of the labour force[140] – can further lead to negative impacts on lower-skilled rural population, i.e. likelihood of future unemployment increasing in direct proportionality with the length of the unemployment period. To prevent this, cooperation with the Indonesian government could be undergone to provide vocational training for the informal sector workers to increase their skillset and employability.

For the **EU**, the CGE model does not predict major changes in employment in the **agricultural sector**, thus the impacts are also not significant for the EU in this sector. Even though, sectors like rice, vegetable oils and oilseed as well as forestry and wood products can see slight decline in jobs (rice: -0.2 and -0.7 per cent for both skilled and unskilled labour under conservative and ambitious scenarios; vegetable oils -0.6 per cent under both conservative and ambitious scenario for skilled and unskilled labour; forestry: less than -0.1 per cent for skilled and unskilled labour under conservative and ambitious scenario). As forestry and wood products sector employs about 5 million people in the EU[141] , this sector can see relatively larger impacts on about 3000 to 5000 jobs.

In the electronics industry, Batam Island (located south of Singapore), as well as adjacent Bintan and Karimun islands and Riau province in North Sumatra,

[138] Gaikindo, "Industri Manufaktur akan Serap 17,98 Juta Tenaga Kerja di 2018", available at: https://www.gaikindo.or.id/industri-manufaktur-akan-serap-1798-juta-tenaga-kerja-di-2018/
[139] World Bank, 2017, "Indonesian Global Workers: Juggling Opportunities and Risks", accessed 21 February 2019 via: http://pubdocs.worldbank.org/en/357131511778676366/Indonesias-Global-Workers-Juggling-Opportunities-Risks.pdf
[140] [140] Badan Pusat Statistik (BPS-Statistics Indonesia), 2019, "Percentage of Informal Agricultural Sector Employment, 2015 – 2018", accessed 19 February 2019 via: https://www.bps.go.id/dynamictable/2018/05/17/1314/persentase-tenaga-kerja-informal-sektor-pertanian-2015---2018.html; Badan Pusat Statistik (BPS-Statistics Indonesia), 2019, "Proportion of Non-agricultural Sector Informal Employment by Province, 2015 – 2018", accessed 18 February 2019 via: https://www.bps.go.id/dynamictable/2018/05/16/1307/proporsi-lapangan-kerja-informal-sektor-non-pertanian-menurut-provinsi-2015---2018.html
[141] EUROSTAT, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=for_emp_lfs&lang=en

comprise a major manufacturing centre in Indonesia. With the expected increase in unskilled and skilled jobs (between 0.4 and 0.7 per cent) in the electronics sector, the region would require better infrastructure for labour mobility. Moreover, taking into account the EU stakeholders' emphasis on the importance of e-commerce and digital economy, and Indonesia's long-term aspirations for turning Batam into a digital powerhouse at Singapore's backdoor, it would also require a supply of skilled labour, an area where Indonesians can face competition considering more accommodating conditions and protections for the skilled migrants in the ASEAN Economic Community, such as Mutual Recognition Arrangements (MRAs), ASEAN Qualification Reference Framework (AQRF), and ASEAN Agreement on Movement of Natural Persons (MNP).

The prospective FTA is not predicted to have impacts on the employment in the EU's electronics industry.

A certain projected decrease in employment in **fossil fuels and other minerals in Indonesia** could put workers in popular mining areas, such as East Kalimantan, Aceh and South Sumatra, out of job across both skilled and unskilled categories. This could, however, be counteracted by other trends in the wider Southeast Asian region, such as facilitation of smooth trade and growing demand in ASEAN, and further shifts of labour-intensive manufacturing from China.

Informal labour

The biggest immediate effect of the FTA on the informal sector can be expected within the agricultural industry, given the disproportionately big share of informal workers in the total workforce in this sector (88 per cent). However, it is hard to estimate whether those out of their previous (informal) jobs will find a job in formal employment or move horizontally into another sector while maintaining the informal nature of job. Given the reference and explicit commitment to the ratification of the ILO conventions in comparable FTAs, the EU-Indonesia FTA could encourage the ratification and implementation of relevant conventions. Enforcement of the *Labour Inspection (Agriculture) Convention (C129)* could further contribute to the shrinking of the informal employment in agriculture, given the lower wages and worse working conditions of the informal workers compared to the formal ones.

On the other hand, literature review suggests that under trade liberalization informal employment could potentially rise in developing countries.[142] This is especially expected to happen in the sectors that face import competition, which forces companies in these sectors to lower their costs. This could be true for some of the industries in the manufacturing sector in Indonesia like machinery and automotive sectors.

Despite the existence of relevant national regulations and local minimum wage-setting standards, over the years Indonesia also saw an uneven pace of the minimum wage increases in Jakarta as opposed to other regions, which has added little incentive to create more jobs in the formal sector. Should the harmonisation of the minimum wage-setting process, committed to by the Indonesian government in 2013 and reinforced through the potential Trade and Sustainable Development Chapter in the prospective FTA, take place, informal operators in Jakarta – which in Indonesia are predominantly micro-businesses with less than 5 employees and low

[142] Laura Munro, "A Literature Review on Trade and Informal Labour Markets in Developing Countries", OECD Trade Policy Working Papers No. 132, 2011, available at: https://www.oecd-ilibrary.org/docserver/5kg3nh4xwxr0-en.pdf?expires=1550154024&id=id&accname=guest&checksum=866C99CE8D973C84B68D6B058A3A3F12

productivity levels – could face the pressure from the better-paid formal jobs in other regions of the country.

Case Study: the potential effects of increased automation

Globally, automation is increasing rapidly in both developed and developing economies, shifting the nature of production across industries from manual work to standardised, machine-led tasks. While levels of productivity are growing, workers performing simple and repetitive task are in the risk of being replaced, unless they upgrade their skillsets.

While the rate and penetration of automation in developing economies is similar to that in developed ones, detrimental effects on employment growth are much stronger in the former.[143] This is because developing countries face several labour market weaknesses, such as low levels of skills, large share of employment in agriculture and manufacture, as well as limited social security nets and reconversion facilities. Nevertheless, developing countries' advantage of low labour costs becomes eroded when robots are sufficiently cost-effective and performant.

Moreover, occupations which require repetitive tasks are not only easy to automate, but also to relocate. Robots contribute to a tendency of re-shoring, which is to relocate production plants to developed countries back from developing ones. Given the globalisation of the supply chain, increasing labour costs in developing countries and the need of a shorter and more agile supply chain, firms may find it more profitable to automate production in facilities close to the destination market, rather than producing in farther emerging economies.

However, not all low-skills jobs are in danger of being replaced. In fact, the lowest-skill jobs are mostly non-routine services, such as cleaning or security, and thus are not directly affected by offshoring or automation (at least so far). On the other hand, robots are progressively taking on the dangerous tasks, fact that contributes positively to improving labour conditions. Consequently, automation tends to increase the demand for high-skilled workers, such as engineers, as well as non-routine occupations that require abstract thinking and face-to-face communication.

Overall, automation both destroys and creates jobs. In fact, most economists agree that during the last two centuries, automation has led to an increase in employment. Indeed, automation changes the types of required jobs, endangering certain working groups, while opening new domains and leading to major productivity gains.

Ultimately, automation might not be stopped on the long-term. Capturing the benefits or suffering losses due to automation depends on a nation's ability to calibrate its industry's focus, strengthen its education system (including continuous education) and efficiently protect the most vulnerable within its labour force. Building barriers would likely produce more harm than benefits. A country that loses out on automation, loses out on productivity and competitiveness.

Indonesia is one of the countries in ASEAN with the highest percentage of wage

[143] International Labour Office(Carbonero, F., Ernst, E., Weber E.)2018. *Robots worldwide: The impact of automation on employment and trade*. Available via https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_648063.pdf

workers susceptible of being replaced by automation, especially in the retail, clothing, textiles, and footwear and automotive sectors.[144] According to an ILO study on ASEAN region, more than 60 per cent of salaried jobs in electronics, automotive, and textiles and clothing are at threat and possibly could be lost to automation[145]. Over half of all jobs in Indonesia are at risk. The impact of automation is greatest for low-skilled workers, women and youth, as for example, the ILO study on *Jobs Outlook in Indonesia* points out that only 24.4 per cent of Indonesian women studied science, technology, engineering and mathematics, compared to 50 per cent of Indonesian men[146].

Automation does not only threaten jobs in Indonesia: in the EU, about half of the jobs could similarly be fully or at least partially automated in the future[147]. The automation can occur mostly in the same sectors as in Indonesia. However, the EU is better prepared to deal with the impacts of automation. For example, the Closing Skills Gap project aims to create a global community of experts and leaders in education and training, and to establish a network of national platforms to close skill gaps caused by technological disruptions and reshape education and training for the future.

The prospective FTA between the EU and Indonesia would result in an overall increase of industrial, agricultural and service output in Indonesia, leading to gains in both human employment and gross use of industrial robots. The number of low-skilled jobs in manufacturing and agriculture is expected to increase, being also the category most susceptible of being later replaced by automation. Wages would also raise, further providing incentives for automation. On the other hand, the prospective FTA has the potential to better integrate the Indonesian economy in GVCs and, more importantly, move its positioning upwards. In other words, the prospective FTA could contribute to increasing the demand of high-skilled or creative jobs, which are irreplaceable by robots and better paid at the same time.

More importantly, the agreement would reduce costs and barriers for cross-border investment, making Indonesia a more attractive destination for production facilities invested by European firms. This would result in reducing the incentives to maintain or re-shore production facilities in Europe, rather than in Indonesia, which would further contribute positively to Indonesia's level of competitiveness and employment, while having a rather minor effect for the EU.

In order to mitigate potential downsides of increased automation in certain sectors, Indonesia needs to strengthen efforts in the direction of upgrading the skillset of its workforce, provide reconversion opportunities and improve social protection nets for those that are most impacted. The **importance of technical and vocational training programs** in Indonesia becomes increasingly pronounced considering the rise of automation. Nevertheless, the agreement itself would allow for a transition period in preparation of structural changes before coming fully into place.

Conclusions

[144] International Labour Organization (Jae-Hee Chang and Phu Huynh). 2016. *ASEAN in transformation : the future of jobs at risk of automation*; Geneva: ILO, 2016
[145] International Labour Organization, "Indonesia jobs outlook 2017", 2017, available at: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_613628.pdf
[146] Ibid
[147] European Commission, "Threats and opportunities from automation and robotization", available at: https://ec.europa.eu/knowledge4policy/foresight/topic/changing-nature-work/new-technologies-automation-work-developments_en

The results of the analysis based on the CGE model suggests that a greater level of liberalisation will lead to more drastic shifts in employment levels across sectors in both the EU and Indonesia. In this respect, two important considerations should be taken into account. Firstly, **whether the sectors expecting employment growth match with those typically meeting decent work standards and providing appropriate working conditions to workers**. Typically, automotive, banking, insurance, real estate and business services sectors offer better working conditions and their workers generally possess higher levels of skills and productivity compared to other sectors such as textiles. The CGE model indicates that the EU is more likely to gain in terms of employment in the former sectors, while Indonesia is more likely to see an expansion in the latter sectors where labour conditions are typically worse. Consequently, if employment growth in these sectors is not matched with improved working conditions over time – including the gender pay gap – a wider proportion of workers will risk being in poor working conditions.

Secondly, **whether the shift in employment levels across sectors can be sustained despite the consequent skills mismatch originating from the need to adapt to new skillsets and roles.** This transition is generally considered costly and difficult as it may require workers to acquire new or even more complex skills. To account for the issue of skills mismatch, **access to good quality skills development and vocational training programmes could play a positive role in supporting workers to adapt to changes**. While the EU has many technical and vocational training programs on national and union level, Indonesia is still struggling in this regard. At the same time the EU is well positioned to provide such technical assistance to Indonesia's workforce. It is noteworthy that initiatives in this area are already underway, such as GIZ's efforts to support the Indonesian government to reform its technical and vocational education and training (TVET) system.[148] **European businesses through their CSR and RBC programmes, could also contribute to the development of Indonesia's skills and vocational training curricula.** Additionally, it is also possible that if the expansion occurs in sectors that do not require skilled workers alongside a contraction in sectors that require highly skilled workers, then workers' talents may be underutilised.

4.2. Poverty and Inequality

Baseline scenario

The decline of poverty rate In Indonesia has been generally slow: between 2006 and 2010, poverty incidence declined at 1.2 per cent per annum, dropping to 0.5 per cent in the period between 2011 and 2014, the rate of decline dropped to 0.5 per cent.[149] The number of those vulnerable to poverty has remained substantially unaffected. One of the main contributors of this situation has been the constantly increasing level of inequality since 2000, especially relating to disparity between the economic living standards of different households. For instance, in 2002 the richest 10 per cent of Indonesians consumed as much in total as the poorest 42 percent, a figure which in 2014 increased to 54 per cent. The Gini coefficient stood at 30 points in 2000, while it sharply increased to 41 points in 2014.[150]

[148] GIZ, Sustainable economic development through technical and vocational education and training (SED-TVET) accessed 20 August 2018 via: https://www.giz.de/en/worldwide/16755.html
[149] Asian Development Bank, 2015, ADB Papers on Indonesia: Summary of Indonesia's Poverty Analysis, accessed 14 August 2018 via: https://www.adb.org/sites/default/files/publication/177017/ino-paper-04-2015.pdf
[150] The World Bank, 2015, Indonesia's Rising Divide, accessed 7 August 2018 via: http://documents.worldbank.org/curated/en/267671467991932516/Indonesias-rising-divide

In the following subsections, the level of inequality is examined in detail with respect to the dimensions of gender, education, and health. Rural-urban differences are tied into all three analyses.

Gender

Oxfam's report on inequality highlights gender as one of the oldest dimensions of inequality that is pervasive in Indonesia. It plays a dual role wherein it acts as a driver and a consequence of economic inequality.[151] The ILO estimates that Indonesia has a gender pay gap of 14.5 percent, meaning that on average women earn 14.5 per cent less than men.[152] On average, a woman's real wage is 30.8 per cent lower than a man's real wage. At present, Indonesia has no legislation on equal pay for equal value, nor does it have any provision for non-discrimination based on gender when hiring.[153] However, the Gender Equality and Justice law, which is still being drafted, is expected to address the equal pay and discrimination issues. Furthermore, the 1974 Marriage Law designates the man as the head of the household. As such, married women who work outside the home are taxed at a higher rate than working husbands.[154]

The contribution of certain sectors to gender issues is discussed in more detail in the chapter in **Chapter 8**.

Education

Although the Indonesian constitution guarantees free education, higher-quality education is available primarily in private schools – which are unaffordable for low-income households. In 2015 the Indonesian government introduced a nationwide compulsory 12-year school program, but the implementation was inconsistent. As of 2016, approximately one million children between ages 7 and 15 did not attend primary or secondary school, while an estimated 3.6 million children between ages 16 and 18 did not attend school at all.[155] Drop-out rates increase towards senior secondary school; almost one in five children who complete junior level do not continue afterwards. This is important as a greater number of years of education has not resulted into higher earnings for rural and low-income households. A key reason lies in the significantly lower quality of education that low-income Indonesians and those living in rural areas can access.[156] The resulting wage gap between the more and less educated consequentially affects consumption[157] and career progression.[158]

Health and Healthcare

Indonesia has made progress towards achieving universal health coverage owing to the introduction in 2014 of a new national health insurance scheme (*Jaminan Kesehatan Nasional*, or JKN), aiming to provide, by 2019, access to health insurance to the entire population. The scheme aims to enrol all society groups (rich and poor, formal and informal sector) into one risk pool, which, if successful, will increase the coverage, efficiency and effectiveness of its funding. However, the current system continues to use premiums to be paid which automatically excludes

[151] Ibid.
[152] International Labour Organization: ILOSTAT, Indonesia Country Profile, accessed via: http://www.ilo.org/ilostat/faces/home/statisticaldata/ContryProfileId?_afrLoop=466613212410007#!%40%40%3F_a frLoop%3D466613212410007%26_adf.ctrl-state%3Dv7o0jg6yh_154
[153] Asian Development Blog, 2014, Discrimination driving gender wage gap in Indonesia, accessed 13 August 2018 via: https://blogs.adb.org/blog/discrimination-driving-gender-wage-gap-indonesia
[154] United States Department of States, Country Reports on Human Rights Practices for 2017, accessed 6 August 2018 via:https://www.state.gov/documents/organization/277327.pdf
[155] United States Department of States, Country Reports on Human Rights Practices for 2017, accessed 6 August 2018 via: https://www.state.gov/documents/organization/277327.pdf
[156]The World Bank, 2015, Indonesia's Rising Divide, accessed 7 August 2018 via: http://documents.worldbank.org/curated/en/267671467991932516/Indonesias-rising-divide
[157] Asian Development Bank, 2015, ADB Papers on Indonesia: Summary of Indonesia's Poverty Analysis, accessed 14 August 2018 via: https://www.adb.org/sites/default/files/publication/177017/ino-paper-04-2015.pdf
[158] Asian Development Bank, 2016, ADB Papers on Indonesia: Analysis of trends and challenges in the Indonesian Labour Market, accessed 14 August 2018 via: https://www.adb.org/sites/default/files/publication/182935/ino-paper-16-2016.pdf

millions of people from access to healthcare. Furthermore, poor administrative capacity of the JKN personnel and the country's infrastructural deficits to ensure access to healthcare (especially from rural areas) further hinder effective coverage. Finally, awareness especially among vulnerable groups (including informal workers) of social security options available remains limited.[159]

Liberalisation scenario and impact assessment

The prospective FTA's contributions to GDP and wages (as detailed previously) may help enhance purchasing power for Indonesian households as well as foster Indonesia's efforts to improve the quality of education and access to national healthcare. However, should issues with low wages in some sectors and a gap between skilled and unskilled labour persist, the challenges of inequality and poverty will remain difficult to tackle even as the GDP increases.

Even though the share of women in many sectors is declining, the expanding GTF sector could see more women in Indonesia entering the workforce. However, as the GTF sector offers rather low-paid jobs, it is not expected that the expansion of this sector could have positive impacts on the gender equality or gender pay gap. On the other hand, the expansion of the GTF industry could offer formal working opportunities to more women, as currently women make up large part of the informal sector.

The findings of the study re-affirm the decisive role that labour conditions such as wage levels, gender-pay gap and informality of work have on reducing poverty and inequality in Indonesia. In this context, **the inclusion of provisions on the ratification and effective implementation of relevant ILO Conventions in the prospective FTA could play an important role in meeting the goal of reducing inequality in Indonesia**.

The actual improvement of quality of education-, and the expansion of health insurance and social security depend more on how relevant national policies are developed than on the impact of the expected provisions of the FTA, and therefore this cannot be fully ascertained at the current stage. However, the prospective **FTA provides the potential for improving Indonesia's quality of education as well as healthcare system as Indonesia's GDP is expected to increase**.

4.3. Impacts on Working Conditions

Working conditions cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace. While the EU is at the forefront of promoting labour standards and decent working conditions, issues remain in Indonesia.

Baseline scenario

Indonesia has ratified all eight ILO fundamental conventions and these fundamental conventions are all in force. Additionally, Indonesia has ratified two of four governance conventions, which include the *Labour Inspection Convention (C081)*, and the Tripartite Consultation (International Labour Standards) Convention. The *Social Security (Minimum Standards) Convention, 1952 (No. 102)* has not been ratified by Indonesia.

[159] GIZ, Expansion of Social Health Protection for Informal Workers in Indonesia - Main Challenges and Recommendations, accessed 8 August via:https://www.giz.de/en/downloads/giz2013-en-policy-brief-health-protection.pdf

In 2003, Indonesia adopted the *Manpower Act* (MA).[160] The MA defines an employer as an individual, businessman, legal entity, or other agency that employs manpower by paying them wages or compensation in other forms. It further defines an entrepreneur as an individual, a partnership or legal entity that operates a self-owned enterprise or a non-self-owned enterprise or representatives in Indonesia of enterprises domiciled outside the territory of Indonesia. Only 'entrepreneurs' are obliged to comply with regulations pertaining to work agreements, minimum wages, hours, etc. (*MA, Arts. 77-79 and 90*). Employers are only obliged to provide basic protections to those they employ (welfare, safety and health, both mental and physical – *MA, Art 35*). The right to decent earning/decent living is specified in Article 88(1) of the MA. In practice, compliance levels remain low for the payment of minimum wages to regular employees. Minimum wage is set by each Governor at provincial or district/city level by the National Wage Council, Provincial Wage Councils and District/City Wage Councils, therefore varying between provinces dependent on living standards. The *Minimum Wage Fixing Convention, 1970 (C131)* has not been ratified by Indonesia.

The *Hours of Work (Industry) Convention, 1919 (No. 1)* and the *Hours of Work (Commerce and Offices) Convention, 1930 (No. 30)*, have not been ratified by Indonesia. The MA and the Ministry of Manpower and Transmigration (MoMT) provide regulation on the maximum hours of work instead. MoMT's regulations are not applicable to all sectors as only certain business sectors and types of work can be regulated by the ministry. In the case of overtime, the maximum work is three hours in a day and 14 hours in a week, provided that it is paid, and that rest, food and drink are regularly offered.[161] In practice, overtime work remains extremely common, especially for low wage workers which opt for longer working hours as a means to increase their basic income.[162] Long hours make employees more prone to mistakes, and thus to work-place accidents. Employers are not aware of safety and health regulations and best practices, and often have little financial incentive for putting these into place either. This is partly due to the fact that labour remains cheap and easily replaceable, and partly because fines and penalties for health-related hazards in the workplace are still relatively low for employers.[163]

Relevant laws and regulations require employers to provide a safe and healthy workplace and to treat workers with dignity. Local officials from the Ministry of Labour are responsible for enforcing regulations on minimum wage and hours of work, as well as health and safety standards. Penalties for violations of these laws include criminal sanctions and fines, which are generally effective in deterring violations. Government enforcement, however, remains largely inadequate. Smaller companies easily escape enforcement, and supervision of labour standards remains weak. The number of inspectors too remains limited to enforce compliance with little improvement expected.[164] *Autonomy Law No 32* transferred the responsibility

[160] International Labour Organisation, 2011, Decent Work Country Profile Indonesia, accessed 9 August 2018 via: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_167418.pdf

[161] The Hours of Work (Industry) Convention, 1919 (No. 1) and the Hours of Work (Commerce and Offices) Convention, 1930 (No. 30), have not been ratified by Indonesia.

[162] A 2011 study by the ILO showed that 73.8 per cent of Indonesia's regular employees worked more than 40 hours per week (77.6 per cent men, 66.8 per cent women). See: International Labour Organisation, 2011, Decent Work Country Profile Indonesia, accessed 9 August 2018 via: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_167418.pdf

[163] International Labour Organisation, Labour Law Reform Focusing on Freedom of Association and the Right to Bargain Collectively: Report from Indonesia, Accessed 6 August 2018 via: http://apirnet.ilo.org/resources/indonesia-labour-law-reform-focusing-on-freedom-of-association-and-the-right-to-bargain-collectively

[164] United States Department of States, Country Reports on Human Rights Practices for 2017, accessed 6 August 2018 via: https://www.state.gov/documents/organization/277327.pdf

of labour inspections to local government, however, coordination between local and national authorities remains weak. In addition, labour inspectors often lack enough capacities or trainings to carry out effective inspections.[165]

Workplace related accidents are also common. Long shifts with few breaks and rapidly-degrading technical safety standards within equipment – often aggravated by non-regular testing and utilization way beyond technical and safety lifetime are risks mentioned by stakeholders. Finally, workers often lack formal training on how to work with machines in the safest way possible, and safety instructions/warnings are often absent or outdated. This is a cause of concern particularly because many machines are manually operated rather than systemised.

Additionally, Indonesia is currently in the process of developing Special Economic Zones (SEZ) to stimulate foreign investment and thus contributing to economic growth and job creation. The attractiveness of SEZs for foreign firms is in part related to the tax- and labour-related incentives they offer, which include lower wages that press production costs.[166] SEZ also tend to have worse working conditions and weaker enforcement of labour laws. Wage pressing incentives in SEZs and industrial parks as well as lower working conditions were also raised as a concern among stakeholders during the Stakeholder Consultation Workshop, especially with regards to some major SEZs that are under development:

- SEZ Sei Mangkei: focuses on palm oil and rubber, biodiesel and biogas
- SEZ Tanjung Api-Api: focuses on palm oil, coal
- SEZ Maloy Batuta Trans Kalimantan (MBTK): focuses on palm oil and oil, gas, coal, minerals
- SEZ Palu: focuses on mining
- SEZ Bitung: focuses on fisheries

Liberalisation scenario and impact assessment

With respect to Indonesia, the areas of major importance in terms of the possible impacts of the prospective FTA are the working conditions. The baseline scenario shows that concerns exist on long working hours, unsafe working environment, poor health insurance coverage, and poor social security coverage. The FTA could foster improvements in working conditions and rights that can have a positive impact through increased productivity, higher wage levels and higher purchasing power. Improved working conditions also feed into the enhancement of the social, economic and human rights conditions of society and benefit the economy at large.

Recently concluded FTAs such as CETA and the EU-Japan EPA have highlighted the importance and role of the interplay between trade and labour rights, and thus could represent important benchmarks and references for the prospective FTA. Both CETA and the EU-Japan EPA reflect the signatory parties' recognition of the role and contribution of international trade to productive and quality employment for all. Both agreements enshrine the Parties' commitment and obligations to the standards set out by the ILO by respecting, promoting and ultimately realising the fundamental principles and rights embedded into them. Moreover, the signatory parties of the CETA specifically aim to embody the ILO Decent Work Agenda through their labour law and practices.

[165] International Labour Organisation, Labour Law Reform Focusing on Freedom of Association and the Right to Bargain Collectively: Report from Indonesia, Accessed 6 August 2018 via: http://apirnet.ilo.org/resources/indonesia-labour-law-reform-focusing-on-freedom-of-association-and-the-right-to-bargain-collectively

[166] RASTOGI, V., 2018, "Indonesia's growing Special Economic Zones – opportunities and challenges", ASEAN Briefing, accessed 12 December 2018 via: https://www.aseanbriefing.com/news/2018/08/24/indonesias-growing-special-economic-zones-opportunities-and-challenges.html

The ratification and implementation of the ILO conventions is perceived to represent an important instrument in the improvement of labour rights and conditions:

1. It serves the economic goal of countering a 'race to the bottom' and the broader goal of improving labour standards at the same time;
2. The ILO's regular supervisory mechanisms apply, improving monitoring; and
3. It enhances the 'gold standard' the EU is aiming to set with its trade agreements.

In this regard, the findings of the study converge on the importance of addressing the following aspects in the prospective FTA or into the wider economic bilateral partnership:

1. **Minimum wage negotiations to promote the growth of average wages**, as the latter seems to rely strongly on minimum wage fixing and employment quality as a large share of workers in low-paid jobs still tend to have non-standard work arrangements. The ILO suggests that progress in this area is expected to lead to significant development dividends, including improvements in gender equality and improved access to education and healthcare facilities.[167]
2. **Adherence to labour standards on social security, living wages, working hours,** given the importance of issues such as low social security coverage, low wages, and large proportion of workers working overtime.
3. The currently **inadequate conditions and provisions available to women in the Indonesian labour market**. Adherence to labour standards on for instance workers with family responsibilities and maternity protection could play a significant role in improving the condition of women in the labour market, and in the society in general.

Other than securing labour rights, better work conditions can benefit individual enterprises as well. Research has shown that factories can experience up to a 5.9 per cent boost in profitability when workers perceive improvements in working conditions traditionally associated with 'sweatshops', including improvements in their sense of physical security and assurance in wage payments. Profitability can further increase to up to 7.6 per cent when workers experience a comfortable environment and trusting workplace. Workers in factories with better working conditions have been shown to reach their daily production targets up to 40 minutes faster than similar workers who are working in factories with worse conditions.[168]

Stakeholders have emphasised that the prospective FTA should go beyond job creation and tackle also working conditions, including working hours, union busting and non-successful wage negotiations. Many stakeholders remained concerned whether Indonesian domestic policies on labour conditions, especially with regards to enforcement of labour laws and capacity of authorities to carry out labour inspections could improve under the prospective FTA and recommended that certain safeguards are put in place, including cooperation and assistance measures.

[167] International Labour Organisation, 2015, "Indonesia: Trends in wages and productivity", accessed 7 August 2018 via: http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_343144.pdf

[168] International Labour Organisation, 2015, Working Conditions, Productivity and Profitability Evidence from Better Work Vietnam, accessed 13 August 2018 via: file:///C:/Users/suvina.singal/Downloads/ILO-1513-Research-Brief-for-DP-No.-17-Are-Sweatshops-Profit-Maximizing.pdf

Stakeholders have also expressed concerns about the potential impacts of trade liberalisation on the working conditions in the Special Economic Zones. As wages and labour law enforcements are relatively low in the SEZs these areas are vulnerable for changes in employment in the respective industries. Especially for sectors like the GTF industry, which is expected to see an increase in employment according to the CGE model, the risk is that more Indonesian people will start to work for a low wage and in an environment with less labour inspection visits according to some stakeholders. However, it is not expected that a prospective FTA would have a direct effect on working conditions in the SEZs, simply because it is governed by Indonesian domestic policies which would not directly be impacted by an FTA. The indirect impact that a prospective FTA could possibly have is that more people would work under lower working conditions as more workers are driven towards the SEZs. Nevertheless, the indirect impacts are expected to be rather limited. Furthermore, the lower labour standards in the SEZs could be raised to acceptable standards through horizontal commitments in the prospective FTA applying to the legal framework related to working conditions.

In order to mitigate potential negative impacts on working conditions, stakeholders advocated for a strong language in the Trade and Sustainable Development Chapter of the prospective FTA. Some stakeholders also suggested including in the Chapter a complaints mechanism for affected communities in case transnational corporations violate human rights, labor rights or cause environmental damage, and an obligation for the parties to the agreement to follow up on such complaints. In general, **it is suggested that the Trade and Sustainable Development Chapter of the prospective FTA addresses the issue of labour conditions via calling the parties to implement ILO Conventions as well as to adhere to the ILO Decent Work Agenda.**

4.4. CSR and RBC

Baseline scenario

Indonesia has a policy framework in place for CSR. CSR obligations are part of the following laws:

1. The *State-Owned Enterprises Law (Law No. 19/2003)*. *Article 88* states that Indonesian State-Owned Enterprises (SOEs) must be active in assisting Small and Medium-Sized Enterprises (SMEs), cooperatives and the people. They are required to allocate 2 per cent of their net profit to CSR.
2. The *Investment Law (Law No. 25/2007)*. CSR in this law is defined as "*the responsibilities attached to every investment so as to maintain a harmonious and balanced relationship that concurs with the environment, local values, local norms, and local cultures*". Investors specifically have the following CSR responsibilities:
   (a) to maintain environmental conservation;
   (b) to care for the safety, health, comfort and well-being of employees;
   (c) to comply with the laws.

   Infringement of the Law may cause the withdrawal of a business permit. Relevant implementation guidelines, principles and standards for the enforcement of the Law are, however, currently lacking.
3. The *Limited Liability Company Law (Law No. 40/2007)*. Article 74 imposes an obligation to engage in environmental social responsibility on companies which carry out activities in the natural resources sector and/or in related sectors. A company in this category is required to allocate funds for CSR implementation – which fall within the scope of corporate operational

expenditure. A sanction, as yet undefined, will be applied to firms that fail to implement CSR.

The EU is increasingly acknowledging the importance of CSR and RBC in its external relations, particularly in sectors which are vulnerable to social and human rights abuses and remains committed to the dissemination and use of relevant international instruments that ensure responsible business conduct.[169] These instruments include the OECD Guidelines for Multinational Enterprises, the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, the UN Global Compact, and the UN Guiding Principles on Business and Human Rights. A specific example of the EU supporting CSR and RBC practices in third countries includes the OECD, EU and ILO collaborative project "Responsible Supply Chains in Asia". Its aim is promoting responsible supply chains in China, Japan, Myanmar, the Philippines, Thailand and Vietnam, with a comprehensive approach including the environment, decent work and human rights.[170] While this initiative does not target Indonesia, it still represents a good example of efforts that can be made by the EU to promote RBC and CSR in its relationship with other strategic partners.

Liberalisation scenario and impact assessment

Considering the EU's commitment to the principles of CSR and RBC, it is expected that the prospective FTA would include a provision for promoting these principles. Since CSR is already a part of Indonesia's legislative framework, consultations with relevant stakeholders highlighted the expectation for European companies to comply with the provisions and measures under this framework. CSR and RBC principles can be powerful in safeguarding and promoting social, cultural, economic, and environmental and human rights matters in trade and business relations. If enforced, these principles could have the potential to lead to the improvement of supply chains in various sectors, ranging from palm oil, garments and textiles, to fisheries. They could also introduce tools to hold all companies accountable for their obligations towards promoting these rights.

The main current criticisms of the CSR and RBC concepts relate to the fact that these are applied on a voluntary basis. Business may claim to have committed to programmes under CSR and RBC in Indonesia, but they are unlikely to face negative consequences if they chose not to do so. Several stakeholders have remarked that although most brands adopt CSR and RBC programmes focusing on the improvement of labour standards[171], however such programmes are often compromised as an attempt to maintain market share amidst fierce industry competition resulting in goods sold at increasingly lower prices.

[169]European Commission, accessed 17 August 2018 via: http://trade.ec.europa.eu/doclib/docs/2017/september/tradoc_156111.pdf
[170] European Commission, Responsible Supply Chains in Asia Action Fact Sheet, accessed 17 August 2018 via: http://trade.ec.europa.eu/doclib/docs/2018/march/tradoc_156624.pdf
[171] For example, H&M factories in Indonesia encourage best practices in their factories related to gender equality and child labour.

5. Overall Human Rights Impacts

This chapter presents the findings of the study relating to the overall human rights impacts expected from the prospective FTA. It focuses on Indonesia, as the prospective FTA is expected to have greater impact on the human rights situation in Indonesia than in the EU, in view of the strong and comprehensive human rights protection system in place in the EU and of the different magnitude of impacts expected on each Party. The section highlights those 'vulnerable' groups most likely to be impacted (either positively or negatively) by a prospective FTA, referring to both relevant economic indicators provided by the CGE modelling and qualitative indicators. Feedback from stakeholders is considered and incorporated into the analysis. Indigenous people, children and women are identified as the most vulnerable groups in human rights analysis.

The analysis is based on the standards defined by the Charter of Fundamental Rights of the EU and the *European Convention on Human Rights* as well as the core UN treaties and conventions, and other regional human rights conventions as well as, customary international law.

Fundamental labour rights, while also considered human rights, have been discussed in the social impact assessment and therefore will not be included in this chapter. Together with other aspects of environmental impacts (**Chapter 6**), social impacts will however be cross-referenced in this chapter in case major implications are foreseen for the enjoyment of human rights.

Similar to the social impact analysis, the prospective FTA is likely to have impacts on the people in Indonesia occupied in and around the sectors that would see either a rapid increase in output or substantial increase in bilateral trade, especially in sectors where human rights concerns exist. For example, the analysis concludes that mitigation measures should be put in place regarding vulnerable groups (e.g. on children's right to survival and development) in sectors such as fishing and GTF.

Approach to human rights analysis

The inception report of this SIA process identified twenty specific human rights most likely to be somewhat affected by the prospective EU-Indonesia FTA. These include the following:

Table 17: Human Rights Potentially Affected by the EU-Indonesia FTA

Right to an adequate standard of living	*Right to enjoy the benefits of scientific progress*	*Right to privacy*	*Special rights of members of ethnic, religious and linguistic minorities and indigenous peoples*
Right to the best standards of physical and mental health	*Freedom from torture and arbitrary detention*	*Right to freedom of religion, expression, and peaceful assembly*	*Freedom of speech*
Right to education	*Right to liberty and security of person*	*Right to family life*	*Right to energy*
Equal rights for men and women	*Right to freedom of movement*	*Rights to children to special protection*	*Right to water and sanitation*
Right to take part in	*Right to a fair*	*Right to participate*	*Right to food*

cultural life	*hearing*	*in public affairs*	

Building on this scoping exercise, this chapter prioritise and focuses on five main rights: (i) land rights, (ii) the right to food, (iii) children's right to survival and development, and the (iv) access to affordable medicines and (v) women's rights. This is because the twenty rights listed in the inception report are closely inter-connected, and in practice can be grouped under these five main categories of rights.

Baseline scenario

Under a baseline scenario, the currently diffused human rights pressures and threats in Indonesia will remain largely unaltered, with a number of challenges that existing national policies and regulations struggle to address systematically.

Good governance and rule of law

Indonesia has successfully transitioned into a democracy since the fall of the authoritarian regime in 1998 and according to Freedom House, country's elections are generally seen as free and fair[172]. Nevertheless, Indonesia is ranked as 'partly free' according to Freedom House *Freedom in the World Report*, scoring 3/7 (0= most free; 7 least free)[173]. While Indonesia's political rights continue to improve, it struggles with corruption and discrimination against minorities. The Joko Widodo administration, while intending to actively improve on both issues has only been partially successful. While several cases against high level political elites accused of anti-corruption resulted in prison sentences, instances of corruption remain. Furthermore, Indonesia ranked 89th among 180 countries in 2018 and received a score of 38/100 for the corruption perception index. (Where 0 is the most corrupt and 100 is the least corrupt).[174]

Indonesia's media landscape is diverse, albeit only 'partly free' as reported by Freedom House (score of 49/100, where 0= most free and 100=least free), as issues remain with major media outlets sometimes serving the interest of their owners[175]. Additionally, the 2008 *Information and Electronic Transactions (ITE) Law* imposes criminal penalties for online defamation, which is seen as an impediment to freedom of expression[176]. Furthermore, the Voice and Accountability Index, which measures freedom of expression and association, independent media veering human rights, press freedom, a people's ability to select government officials, the electoral process among others, has slowly deteriorated since 2015 (0.18 in 2015; 0.13 in 2017).[177]

A range of discriminatory campaigns against, among others, suspected communists, LGBT, and religious minorities has gained ground since 2015. This is part of Indonesia's wider struggle to meet the expectations of its Muslim majority while balancing the rights of its non-Muslim citizens. While the government's commitment to the protection of the rights of these minorities was reiterated numerous of times, violence to religious and sexual minorities have been difficult to fully address.

[172] Freedom House, "Freedom in the World 2018", available at: https://freedomhouse.org/report/freedom-world/2018/indonesia
[173] Ibid
[174] Transparency International, 2018, Corruption Perceptions Index 2018, Indonesia, available a: https://www.transparency.org/country/IDN
[175] Freedom House, "Freedom of the Press 2017", available at: https://freedomhouse.org/report/freedom-press/2017/indonesia
[176] Ibid
[177] The Global Economy, "Indonesia: Voice and Accountability", available at: https://www.theglobaleconomy.com/Indonesia/wb_voice_accountability/

In 2016, President Joko Widodo had announced a reform of the legal system, with the aim of curtailing corruption and improving the general situation of the rule of law as well as human rights. At the same time, the human rights-related conventions ratified by Indonesia will continue to commit the country to upholding several human rights, such as rights against racial discrimination, civil and political rights, and rights of persons with disabilities (a full list of international conventions ratified by Indonesia is included in **Annex 6** of this report).

Liberalisation scenario

While the EU is at the forefront of promoting human rights at the international level, including in the context of trade policy, the consultations carried out for this SIA indicate scepticism among stakeholders towards the likelihood of the prospective FTA to improve the human rights situation in Indonesia, mainly because the human rights situation is largely dependent on domestic policies, laws and regulations. Furthermore, FTAs do not directly include human rights-related provisions beyond the labour-related rights enshrined in the ILO conventions.

At the same time, an FTA has the potential to improve good governance, transparency and rule of law in partner countries. For example, the EU-Vietnam and EU-Singapore FTAs include a Chapter on Transparency in which the need for regulatory quality and good regulatory behaviour is stressed. This not only relates to the rule of law, but also to anti-corruption practices among others. Improving the rule of law and good governance, has also the potential of improving human rights regulations and their enforcement.

The conduct of European companies, particularly MNCs but also SMEs, is recognized to be at a more advanced state of compliance with the relevant human rights conventions as they apply to business operations. As such, the role of EU companies as traders or investors in the Indonesian market, which would likely increase under the FTA, would introduce and further advance more robust human rights compliance practices, as well as foster other initiatives in this area through CSR practices. This development would provide an additional governance framework and reference point for the Indonesia authorities and business networks to advance their own policy, regulatory and compliance frameworks.

The EU-Indonesia FTA could contribute to an enabling environment for both parties to uphold their commitments under the multilateral human rights agreements to which they are signatory. More broadly, some stakeholders have also suggested as additional mitigation measures to strengthen the regulatory and/or enforcement framework and/or the monitoring of human rights-related abuses, highlighting concrete methods on how to do so. Such methods could draw on the principles of CSR, such as those illustrated in the OECD Guidelines for Multinational Enterprises; or, for instance, through joint projects with key international bodies and civil society partners, in line with the 2015 EU Action Plan on Human Rights and Democracy. [178]

5.1. Land Rights: Land Grabbing and Forced Evictions

Baseline scenario

Although in the stage of development, Indonesia does not currently have comprehensive legislation in place for protecting the land rights of indigenous

[178] The Council of the European Union, 2015, "EU action plan on human rights and democracy", p. 39, accessed 3 September 2018 via: https://eeas.europa.eu/sites/eeas/files/eu_action_plan_on_human_rights_and_democracy_en_2.pdf

communities. Nevertheless, the Indonesian government is taking measures to better protect the rights of indigenous people including their customary rights to land. While the Indonesian Constitution recognizes the traditional rights of the indigenous people, customary forests, essential to indigenous people's livelihood and culture, were treated as state forests until as late as 2013. The Constitutional Court of Indonesia confirmed the constitutional rights of indigenous people over their lands and territories in its 2013 decision, including their collective rights over traditional forests.[179]

Since the 2013 Constitutional Court decision, normative frameworks that provide measures to protect indigenous people's land rights have been developed. Examples include *Law No. 23/2014 on Local Government*, *Presidential Decree No. 186/2014* on Social Empowerment of "Komunitas Adat Terpencil and the *Minister of Home Affairs Decree No. 52/2014* on the Guidelines of the Recognition and Protection of "masyarakat hukum adat"[180]. The government is currently also drafting a more comprehensive Bill on Recognition and Protection of the Rights of Indigenous Peoples and is encouraging the provinces to also draft normative frameworks for protecting the traditional rights of indigenous peoples, including land rights. [181]

Despite the government's recent initiatives, enforcement of indigenous peoples' land rights is rather weak and issues with land rights remain. The Indonesian National Human Rights Commission reported that the majority of human rights violations committed in relation to land rights were related to activities in the resource sector, including mining and logging.[182] Land grabbing, denying indigenous communities the right to manage natural resources, along with environmental pollution, were the major concerns related to the development of large-scale plantations in Indonesia (primarily palm oil) and in other industries that rely on natural resources. The reports highlighted community leaders' complaints that they had not been warned, consulted or compensated when concessions for evictions were handed out. Land conflicts between farmers and plantation owners, mining companies, logging companies and developers are common as, due to weak laws and regulations, local and foreign companies have been allowed to seize the land used and administered by indigenous people in accordance with their customs.[183]

Reports of instances of forced evictions also exist. These have been carried out in connection with conflict over land rights in the context of development and infrastructure projects. Poorly drafted laws, unclear regulations, administrative malpractices and heavy-handed security are reported to have contributed to the situation with outcomes tending to favour large business at the expense of the poor indigenous communities. It has been mentioned by human rights NGOs that companies can often utilize certain advantages in these disputes including their knowledge of legal processes and financial resources, something that the indigenous communities often lack of.[184]

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[179] IWIGA, 2018, "Indigenous peoples in Indonesia", available at: https://www.iwgia.org/en/indonesia
[180] Human Rights Council Working Group on the Universal Periodic Review, National report submitted in accordance with paragraph 5 of the annex to Human Rights Council resolution 16/21", February 2017, A/HRC/WG.6/27/IDN/1, available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/036/93/PDF/G1703693.pdf?OpenElement
[181] Ibid
[182] National Commission on Human Rights (Komnas HAM) "National Inquiry on the right indigenous peoples on their territories in the forest zones", 2015, available at: http://www.forestpeoples.org/sites/fpp/files/publication/2016/04/komnas-ham-nationalinquiry-summary-apr2016.pdf
[183] Ibid
[184] FIDH, 2013, Submission to the United Nations Committee on Economic, Social and Cultural Rights, accessed 15 August 2018 via:

Based on the data made available by the NGO HuMa – Community and Ecological Based Society for Law Reform, land grabbing cases often involved acts of violence against and the criminalisation of communities claiming respect for their rights. This resulted in violations of the right to an adequate standard of living by diminishing access to natural wealth and resources, implicating the livelihoods of often vulnerable rural or indigenous communities, especially rural and indigenous women and children. This also impacted the right of the local communities to work, the rights to an adequate standard of living for indigenous peoples and their family, including access to adequate food, clothing and housing, and to the continuous improvement of living conditions.

Stakeholders, including FIDH and KontraS, have noted that the lack of a comprehensive mapping of land use and concessions boundaries, along with administrative malpractices and unclear – or conflicting – legal frameworks, has resulted in the authorities depriving local communities of their land and has allowed companies to 'land grab' in violation of customary rights, the agrarian law and international human rights law. Overlapping and unclear laws grant different authorities the power to regulate land use, thereby allowing some authorities use interpretations leading to abuses and allow for land concessions without transparent engagement with local communities. Furthermore, it is reported that in some cases authorities have failed to implement laws protecting community rights to land and resources or provide adequate remedies in land rights disputes, leaving affected communities with no option other than to demonstrate, block the activities of companies or occupy land.[185]

Stakeholders generally acknowledge the steps the government has taken to address the issue of traditional land rights, however they are concerned that the government's actions are too slow, as for example the government has been discussing the Bill on Recognition and Protection of the Rights of Indigenous Peoples since 2009.[186] Nevertheless, the baseline could foresee a slight amelioration of the situation of indigenous peoples' land rights as the government seems to be committed to further addressing the issue.

Liberalisation scenario and impact assessment

Considering Indonesia's rather weak implementation of laws on indigenous peoples' land rights, increasing trade in sectors where concerns on land rights are relevant, such as forestry and wood products, could run the risk of increased human rights violations, as raising profits could potentially disincentivize the improvement of enforcement mechanisms for indigenous people's land rights by both the private and the public sector.

Given the importance of the palm oil sector to Indonesia's trade relations with the EU and the issues with land grabbing associated with this sector as described in the baseline, many stakeholders were naturally concerned about the prospective FTA's impacts on indigenous people's land rights in palm oil sector. However, as the CGE model predicts a slight decrease in output in Indonesia's palm oil sector, the

https://tbinternet.ohchr.org/Treaties/CESCR/Shared%20Documents/IDN/INT_CESCR_NGO_IDN_15962_E.pdf

[185] FIDH, 2013, Submission to the United Nations Committee on Economic, Social and Cultural Rights, accessed 15 August 2018 via: https://tbinternet.ohchr.org/Treaties/CESCR/Shared%20Documents/IDN/INT_CESCR_NGO_IDN_15962_E.pdf

[186] Aliansi Masyarakat Adat Nusantara, Asia Indigenous Peoples Pact, "Joint Stakeholders' Submission on The Situation of Human Rights of Indigenous Peoples in Indonesia 3rd Cycle of Universal Periodic Review of Indonesia" 2017, available at: http://www.aman.or.id/wp-content/uploads/2016/09/INDONESIA_AMAN_AIPP_UPR_3rdCycle.pdf

prospective FTA is not expected to have notable impacts on indigenous people's land rights in Indonesia's palm oil sector. Similarly, the CGE model does not predict notable increases in mining products, allowing thus to assume no major impacts to indigenous people's land rights in the sector under the prospective FTA. However, the CGE model is not showing FDI flows, thus it is not possible to make assumptions on the impacts of major development projects to indigenous people's land rights.

The extent to which the prospective FTA can address land rights violations and land grabbing is also perceived by stakeholders as rather questionable, given that the key issues relate to the rather weak national laws on indigenous peoples' land rights and continuing administrative malpractices. **However, the conclusion of an FTA should not result in a drastic amplification of existing practices but rather should introduce an additional channel to mitigate the situation**. Stakeholder groups have highlighted the importance of production standards within the affected industries to improve the transparency of business practices. While the production and extraction processes of timber and palm oil already have standards (which, as highlighted by stakeholders, could still benefit from further improvements to account for human rights as well), stakeholders have stressed that other agricultural commodities or the extractive industry sectors lack comparable standards.

In view of the generally higher level of compliance with human rights and CSR principles of EU actors operating in the agricultural, forestry and mining sectors (or in those requiring land acquisition for production purposes), an expansion of their role in the Indonesian market, as expected under the FTA, could potentially ensure an additional pillar to monitoring of supply chain. The FTA could also stimulate the EU and Indonesian authorities to deal with unethical or illegal practices of national operators, particularly in the case where land grabbing practices have been detected.

Finally, the prospective FTA or the wider bilateral partnership could address respect for those land rights that protect the rights of indigenous communities, which are the most vulnerable groups to land grabbing and eviction. Indonesia has already adopted the Declaration on the Rights of Indigenous Peoples; **through the prospective FTA or the wider bilateral partnership support could be given to stronger enforcement measures, which are greatly needed in Indonesia.** Further, when gaining land concessions, EU and Indonesian companies could be recommended to follow an appropriate consultation process that includes representation of the affected communities and peoples in line with internationally agreed RBC and CSR principles.

5.2. Right to Food

The Constitution of Indonesia formally recognises the right to food through Article 28C and Article 28H. [187] The major international instruments that cover the right of citizens to food include the *Universal Declaration of Human Right (1948)*, the *International Covenant on Economic, Social and Cultural Rights (1966)*, the *Convention on the Elimination of all forms of Discrimination Against Women (1979)*, the *Convention on the Rights of the Child (1989)*, the *Convention on the Rights of Persons with Disabilities*.[188] Both the EU and Indonesia have adopted these instruments.

[187] Food and Agriculture Organisation, The Right to Food around the Globe, accessed 20 August 2018 via: http://www.fao.org/right-to-food-around-the-globe/countries/idn/en/
[188] Ibid

Baseline scenario

Approximately 65 per cent of Indonesia's total household consumption comprises of food. World Bank estimates show that a 10 per cent increase in the overall cost of food could result in a relative increase in poverty of 3.5 percentage points. Thus, even a small increase in food prices could have a significant impact on individual welfare and on the national poverty rate.[189]

The availability of rice is fundamental for addressing food security, as rice makes up 23 per cent of poor households' total expenditure. It is currently estimated that a 10 percent increase in rice prices would result in a 1.3 per cent increase of the national poverty rate.[190] Reduced purchasing power also has important nutritional consequences as rice respectively comprises 50 per cent and 23 per cent of the total calorie and protein intake of poor households' total food consumption. Notwithstanding, Indonesia has a relatively well-functioning rice policy, formulated through presidential instruction. The rice policy is part of a larger food security program, which uses domestic procurement, stocks, distribution for poor households, and government reserves for emergencies and natural disasters to guarantee the availability of rice at affordable prices.[191]

Stakeholders have, however, noted that the Indonesian Government does not have in place definitive programmes ensuring the availability of food that is affordable, of good quality, and from sustainable sources. Food security policies tend to depend on imports to meet domestic needs. It has been reported that poor law enforcement and administrative malpractices allow speculators who monopolise food imports to have full authority in determining food prices – which generally culminate in higher prices. The creation of corporate-based food production programmes, where large corporations were given special rights to control farming land, and the lack of implementation of land reforms, is seen as having negatively affected people's (farmers') rights to produce their own food. Stakeholders also highlight the lack of an effective government regulatory control over land ownership has also resulted in the loss of production sources including water and seeds for farmers and that since plantations and mining are more profitable than farming, the expansion of the former has occurred at the expense of the latter and has also led to the displacement of food production land.[192]

As illustrated in the social impact assessment relating to poverty and inequality (**Chapter 4.2**), food insecurity has its economic dimension in poverty, but can also be responsible for long-lasting effects of malnourishment. Nutritional deficiency has resulted from the unequal access to food in Indonesia, and the rate of children suffering from chronic malnutrition (stunting) remains relatively high. The UN High Commissioner for Human Rights has been concerned about the significant increase in staple food prices in Indonesia, which have aggravated malnutrition.[193] In light of current governmental policies, the situation is not expected to improve significantly in the near future.

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[189] The World Bank, 2014, Indonesia Development Policy Review 2014, accessed 6 August 2018 via: http://www.worldbank.org/content/dam/Worldbank/document/EAP/Indonesia/Indonesia-development-policy-review-2014-english.pdf

[190] See the detailed description of Indonesia's Rice Policy for example in: Food and Agriculture Organization of United Nations, The Rice Crisis: markets, Policies, and Food Security", available at: http://www.fao.org/3/a-an794e.pdf

[191] Ibid

[192] Human Rights Working Group, 2014, Indonesia's Civil Society Responses on the List of Issues, accessed 14 August 2018 via: https://tbinternet.ohchr.org/Treaties/CESCR/Shared%20Documents/IDN/INT_CESCR_CSS_IDN_16819_E.pdf

[193] Human Rights Council Working Group on the Universal Periodic Review , "Report of the Office of the United Nations High Commissioner for Human Rights", 2017, A/HRC/WG.6/27/IDN/2.

In view of the continued consumption of palm oil and policy objectives which aim to increase domestic production, it is likely that land concessions will continue to favour palm oil plantations. This could compound the problem of the displacement of agriculture land to other uses and the redirection of agricultural crops to areas that were previously not in use for agricultural production.

The displacement of agricultural crops also has implications for Indonesia's domestic food production, and an over-reliance on palm oil could make it vulnerable to external shocks – both market shocks and environmental shocks related to poor harvests. Shortages of specific food commodities that Indonesia produces could occur sporadically, and this highlights the need for strengthening national policy for food security.

Liberalisation scenario and impact assessment

Considering the CGE model results, Indonesia's rice exports to the EU are expected to exceed rice imports from the EU, without an increase in sector output or imports from third countries expected. This could lead to potential shortage of the domestic supply of rice, which could consequentially result in price increases. At the same time, it is noteworthy that from a historical perspective and resulting from Indonesia's effective rice policy, the country fared well during the 2007-2008 rice crisis, which saw global rice prices hike.[194] These results suggest that these potential effects of the FTA on domestic rice supply should be anticipated by Indonesian authorities and mitigated through adjustments in the country's rice policy. At the same time, increasing exports without mitigating policies could potentially negatively impact vulnerable groups' right to food.

5.3. Children's Right to Survival and Development

Baseline scenario

Indonesia has ratified the *Convention on the Rights of the Child (CRC)* and its Constitution recognizes and protects children's political, social, economic and cultural rights. Children's rights are further protected by *Law No. 23 of 2002 on Child Protection*, which covers much of the law that is relevant to children.[195] Local governments are also encouraged to issue laws, relevant to the protection of children, thus many local governments have adequate legislation in place to protect the rights of children.[196]

Even though Indonesia has laws in place to protect children's rights, stakeholders are concerned about child labour practices in Indonesia. Under Indonesian law, the minimum working age is 15, although light work can be done as of age 13, as long as it does not stunt or disrupt the child's physical, mental or social development and is limited to no more than three hours a day. The minimum working age, however, rises to 18 for occupations considered to be hazardous. Furthermore, there are governmental policies in place to provide safeguards against child

[194] See Indonesia's response to rice crisis for example in: Food and Agriculture Organization of United Nations, The Rice Crisis: markets, Policies, and Food Security", available at: http://www.fao.org/3/a-an794e.pdf
[195] Child Rights International Network, "Indonesia: National Laws", available at: https://www.crin.org/en/library/publications/indonesia-national-laws
[196] Human Rights Council Working Group on the Universal Periodic Review, "National report submitted in accordance with paragraph 5 of the annex to Human Rights Council resolution 16/21", February 2017, A/HRC/WG.6/27/IDN/1 , available: https://documents-ddsny.un.org/doc/UNDOC/GEN/G17/036/93/PDF/G1703693.pdf?OpenElement

labour.[197] The National Action Plan (NAP) for the Elimination of the Worst Forms of Child Labour (2002–2022) provides a policy framework for the elimination of child labour in three operational phases. Specific activities include improving data collection on the worst forms of child labour, increasing awareness-raising and advocacy efforts, and formulating regulations and policies to prohibit the worst forms of child labour. The National Action Plan on Preventing Trafficking in Persons (2015–2019) is enforced with the goals of improving health and social rehabilitation services and repatriation and social reintegration services for human trafficking victims, including children. The Roadmap Toward a Child Labour-Free Indonesia in 2022 (2014–2022) aims to mainstream the elimination of the worst forms of child labour into relevant national policies; strengthen coordination between stakeholders at the national, provincial, and district levels; and enhance the capacity of stakeholders to eradicate child labour.

It is estimated that 3.7 per cent of children between the age of 10 and 14 years in Indonesia are engaged in child labour (equalling to approximately 816,636 children).[198] 2.1 per cent of the children in this age group combine work and school. While most working children manage to participate in some form of schooling, the time they spend for their education is limited and this impacts their ability to reach their full potential. Working children are exposed to significant risks; almost half of children aged between 5 and 14 found to be working are exposed to at least one of the 14 serious hazards, ranging from working with dangerous objects to being engaged in unhealthy environments.[199]

According to an ILO-IPEC study, children are frequently engaged in hazardous work in informal, unregulated tin mines of Bangka-Belitung Province.[200] Accidents and deaths in such cases often go unreported and informal compensation is inadequate. Children are also reported to work in tobacco farming, especially in the provinces of East Java, Central Java, and West Nusa Tenggara, which exposes them to pesticides, exhaustion and extreme heat.[201] There is evidence of children working in palm oil plantations tending the nursery, collecting fallen palm fruitlets, and spraying toxic herbicides to help adult laborers meet their quotas and earn premium pay.[202] Another report pointed out that child labour also existed in the fishing, textile, rubber, and footwear sectors.[203] At the same time Indonesia's Government is committed to eradicating child labour by 2022[204], a goal which may be too ambitious considering the challenges still posed by the weak enforcement and monitoring of child protection laws in Indonesia.

Liberalisation scenario and impact assessment

Based on available reports, child labour appears to be concentrated primarily in the palm oil, fishing and textile industries, and in tobacco farming. Under the CGE liberalization scenarios, the Indonesian palm oil, fishing and tobacco sectors are not

[197] Bureau of International Labour Affairs, 2016 Findings on the Worst Forms of Child Labour, accessed 14 August 2018 via: https://www.dol.gov/sites/default/files/images/ilab/child-labor/Indonesia2016.pdf
[198] UNICEF, "Indonesia", accessed 13 August 2018 via: https://www.unicef.org/indonesia/children_2833.html
[199] Ibid
[200] ILO-IPEC, 2014, Sectoral survey of child labour in informal tin mining in Kepulauan Bangka Belitung Province, Indonesia, accessed 14 August 2018 via: http://www.ilo.org/ipec/Informationresources/WCMS_IPEC_PUB_27535/lang--en/index.htm
[201] Human Rights Watch, 2016, "The Harvest is in My Blood: Hazardous Child Labor in Tobacco Farming in Indonesia", accessed 14 August 2018 via: https://www.hrw.org/report/2016/05/24/harvest-my-blood/hazardous-child-labor-tobacco-farming-indonesia
[202] UNICEF, 2016, Palm Oil and Children in Indonesia: Exploring the Sector's Impact on Children's Rights, accessed 14 August 2018 via: https://www.unicef.org/indonesia/Palm_Oil_and_Children_in_Indonesia.pdf
[203] Ibid.
[204] International Labour Organization, "Eliminating Child Labour in Indonesia"

projected to witness an increase of production – which however would be the case for the textile and wearing apparel sector. Expansion of textile and wearing apparel sector may lead to an increase in the number of children employed in these sectors.

To ensure the fulfilment of Indonesia's commitment to protecting the rights of children, particularly in view of its ratification of the ILO *Conventions on the elimination of Child Labour (No. 138)*, *Forced Labour (No. 105)* and discrimination in employment *(No. 111),* stakeholders consulted have recommended that the prospective FTA should bring this area forward and include provisions referring to these legal and binding commitments, especially in, but not limited to, the sectors where illegal practices have been identified (such GTF sector, palm oil and fishing). As the enforcement of these rights is still relatively weak in Indonesia, stakeholders also recommend cooperation between the EU and Indonesia in order to improve children's rights in Indonesia.

Finally, the findings of the study show the **potential for an increasingly active role for EU companies in the monitoring of the supply chain and dissemination of good practices in Indonesia with respect to child labour, as a result of their increased presence on the market following a prospective FTA**.

5.4. Access to Affordable Medicines and Right to Health

Baseline scenario

Article 28H of the Constitution of Indonesia guarantees the right to health for its citizens, that is, the right to live in physical and spiritual prosperity, to have a home and to enjoy a good and healthy environment, and to obtain medical care. In 2014, the Indonesian Government's social security agency introduced the Jaminan Kesehatan Nasional (JKN) scheme, with the aim of assisting disadvantaged households to have access to health insurance. The introduction of the JKN scheme is generally seen as an important step through which Indonesia seeks to comply with the right to health of its citizens.[205] One of the key tasks for the JKN relates to ensuring access to affordable and good quality medicines, although this is perceived as a major challenge because of the large population of the country (the scheme is expected to meet the demand of around 180 million citizens). Logistic, budgetary, informational and human resource constraints, and a shortage of quality medicines, are other factors that pose a challenge to delivering health care to all[206].

The Indonesian government has introduced a system of tendering for medicines based on the National Formulary through the National Public Procurement Agency as a part of the JKN. These tendering exercises have resulted in a massive reduction in the price of medicines. Further price reductions are expected, as the government is committed to making healthcare more affordable. Pharmaceutical product providers, however, have expressed concerns regarding tendering processes currently tending to excessively reward price reductions, leading to unwanted consequences such as compromised quality, safety concerns, the potential for medical complications, and reduced efficacy of medicines[207].

[205] World Health Organization, "The Republic of Indonesia Health System Review", 2017, available at: http://apps.who.int/iris/bitstream/handle/10665/254716/9789290225164-eng.pdf;jsessionid=9F5B699A06726859E0B30515AC924D90?sequence=1
[206] Ibid
[207] Ibid

The sustainability of the national pharmaceutical industry is crucial to ensure access to affordable medicines. At present, weak coordination among key government agencies, and continued price reductions to commercially-unsustainable levels, appear to represent major risks, which could potentially hinder the conditions of national and international manufacturers to maintain quality and supply of medicines and to generate capital for re-investment in manufacturing facilities, quality control processes, distribution networks, as well as R&D and innovation activities.[208]

While the government is making efforts to achieve universal health coverage, its limited revenue and capacity continue to act as barriers against its success. A higher level of economic development combined with continued political will towards improving health conditions in Indonesia, are expected to play a critical role in predicting whether universal health coverage will be achieved.

Liberalization scenario and impact assessment

The EU has expressed its commitment to support partner countries in reforming and strengthening their healthcare systems. The EU text proposal on IP for the EU-Indonesia FTA with regards to access to medicines includes references to the Doha Declaration recognising TRIPS flexibilities.[209] Under the current proposal, both parties would keep the right to determine what can be classified as a national or extreme healthcare emergency, facilitating the right of either party to issue a compulsory license in special situations. The proposal ensures that the flexibilities granted by the TRIPS agreement, particularly regarding patents on medicines, can be fully complied with.

Despite this, during the stakeholder consultations, several civil society organisations have expressed concerns about the future of access to affordable medicines in Indonesia. Specifically, some of these concerns include:

1. Mandatory patent term extensions to compensate for regulatory delay in granting marketing approval of medicines with a proposed minimum 15-year term of effective patent coverage.
2. An additional mandatory patent term extension in the case of pediatric studies.
3. Enhanced enforcement measures in terms of intermediary liability, mandatory provisional measures, border measures involving suspected patent violations, and lost-profit damages.
4. National and regional exhaustion of rights only, limiting right of parallel importation.

Patent term extensions and data/marketing exclusivities based on registration-related data/decisions can thus have impacts of on access to affordable generic medicines. On the other hand, stronger IP protection in Indonesia would foster R&D (domestic and foreign alike) leading to the development of new breakthrough medicines for patients, eventually making medicines also more affordable (the issue of IP protection and pharmaceuticals is further discussed in **Chapter 7.3**). Furthermore, increase in Indonesia's GDP under the prospective FTA would in theory allow the Indonesian government to increase healthcare spending, depending on the direction of Indonesia's national policies.

[208] Ibid
[209] The EU proposal can be accessed via:
http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155281.pdf

In addition, an agreement on investments could increase EU's FDI in Indonesia's pharmaceutical and healthcare sector, leading to an availability of a larger variety of medicines to the people of Indonesia.

A mitigation strategy could be an explicit statement reaffirming within the FTA of the TRIPS flexibilities that may be used. Other suggestions put forward by stakeholders include a reference to mechanisms to support voluntary technology transfer on mutually agreed terms and strengthening of local capacity.

5.5. Women's Rights

Baseline scenario

Indonesia is a signatory to the *UN Convention on the Elimination of Discrimination against Women (CEDAW)*, and equal rights of men and women are protected through Indonesia's constitution as well as through *Law No. 39/1999 on Human Rights*, which is in line with the *Universal Declaration of Human Rights*. The Indonesian government is currently drafting the law on Gender Equality and Justice which will draw on internationally agreed frameworks on women to reform national and local policies on women's rights[210]. Furthermore, the Ministry of Women Empowerment and Child Protection has launched the 3Ends Program in 2016, which aims at ending violence against women, human trafficking and barriers to economic justice for women[211].

Despite the progress made on women's rights in Indonesia, the enforcement of national laws remains relatively weak, especially on Province level. Furthermore, according to stakeholders, Indonesia's national laws have not yet fully incorporated all the provisions of CEDAW. In addition, some Province level by-laws still perpetuate gender-based discrimination. For example, the by-laws in Aceh Province restrict women's rights in the conduct of their daily life, including social and public life, impose a dress code and impede women's freedom of movement.[212]

Traditional social perceptions about gender roles, especially in rural areas and in poor communities, perpetuate gender inequality across various domains from health and education to employment. The rather considerable gender pay gap has resulted in the concentration of women in lower-paying employment sectors and their underrepresentation in high-level positions in both the public and private sectors.[213] Women are often subject to work-place harassment and gender-based violence, with the rural and indigenous women being the most vulnerable. As traditional perceptions of gender roles are hard to break, especially in rural communities, improvement of women's rights can be expected to be rather slow, even as the government is committed to improving the laws and regulations.

Liberalization scenario and impact assessment

The CGE modelling data predicts a substantial increase of employment in the wearing apparel and textiles sector as detailed in **Chapter 4.1**. This sector is known to employ large numbers of women and thus the prospective FTA could

[210] Human Rights Council Working Group on the Universal Periodic Review, "National report submitted in accordance with paragraph 5 of the annex to Human Rights Council resolution 16/21", 2017, A/HRC/WG.6/27/IDN/1 available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/036/93/PDF/G1703693.pdf?OpenElement
[211] Ibid.
[212] Human Rights Council Working Group on the Universal Periodic Review , "Report of the Office of the United Nations High Commissioner for Human Rights", 2017, A/HRC/WG.6/27/IDN/2, available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/035/11/PDF/G1703511.pdf?OpenElement
[213] Ibid

contribute to the increase of female participation in the labour force, offering opportunities to the most vulnerable groups of women to escape poverty. On the other hand, this could perpetuate women's employment in lower-paying employment sectors. Nevertheless, it is generally recognised that an independent income gives women the opportunity to form organisations and gain better representation, including regarding interactions with the government to improve their rights.

Concerns exist on working conditions as well as labour and human rights abuses in the garment, textile and footwear sector in Indonesia. Besides comparatively low wages, long working hours and issues with adherence to occupational health and safety standards, reports also point at work-place harassment (including sexual harassment) and gender-based violence in this sector.[214] **Rapid increase of the GTF sector, without mitigating policies in place, could put a strain on the capacity of the authorities and the judicial system to protect and enforce women's rights in the GTF sector.** The situation is expected to be worse in small and medium sized companies, where human rights monitoring, and enforcement mechanisms would be rather limited.

On the other hand, recognising the generally higher level of compliance of EU companies to human rights and uptake of CSR and RBC practices, an expansion of their role in the Indonesian market, as expected under the FTA, could ensure an additional pillar to monitoring of respect of women's rights in the supply chain and reference or benchmark for good local practices which could over time be adopted by Indonesia companies.

The prospective FTA or the wider bilateral partnership could give support to both parties' commitment to implement the UN Convention on the Elimination of Discrimination against Women and serve as a platform for further cooperation projects to share best practices, especially in the domain of rights enforcement.

[214] Fair Wear Foundation, "Indonesia Country Study 2018", available at: https://www.fairwear.org/resource/indonesia-country-study-2018/

6. Overall Environmental Impacts

This section presents the overall environmental impacts expected from the proposed EU-Indonesia FTA, presented for Indonesia and the EU across the following dimensions: 1) greenhouse gas (GHG) emissions, 2) water quality and resources, 3) land use and soil quality, 4) waste, waste-management and marine litter, and 5) ecosystem services, biodiversity and protected areas.

The environmental results indicate that since the prospective FTA would change the composition of current trade relations between the EU and Indonesia, placing greater emphasis on some products over others due to elimination of barriers to trade and investment, several environmental implications may surface. For example, the increase in economic activities under the prospective FTA would see a small increase in CO□ emissions in both Indonesia and the EU, with the results being more pronounced for Indonesia. Similarly, GHG emissions, including methane, are anticipated to slightly increase as well. On the other hand, commitments for the liberalisation of FDI for climate-friendly goods and services, including the facilitation of trade in/use of renewable energy, could help to minimise and even reverse potential negative environmental impacts.

In view of increased expansion of the textile, leather and apparel industries in Indonesia, for which concerns on environmental degradation already exist, negative impacts on the environment could be expected, unless mitigation policies are put into place. Similarly, in the absence of mitigation measures, an increase in industrial output would result in an increase of waste generation in Indonesia. The findings of the study thus highlight the need for the negotiations to take such concerns into account, especially in view of the expected significant increases in EU exports of non-biodegradable products. Overall, cooperation between the two parties would be needed to mitigate potential negative environmental impacts, especially in Indonesia.

Methodology

The implications of FTAs on the environment have been studied as early as the North American Free Trade Agreement (NAFTA) and the common interpretation of its environmental impacts is perceived as threefold:[215]

1. Scale effects
2. Composition effects, and
3. Technique effects

'Scale effects' refer to the assumption that an increased liberalisation of trade creates greater economic activity and output, thus increasing the demand for input of raw material, transportation services, energy, and human resources in order to meet this demand. If the increased scale of the output is not accompanied by a change in the approach/technology, then it will consequentially lead to greater environmental degradation, including greenhouse gas (GHG) emissions, water and air pollution, biodiversity loss, etc. Similarly, the increased movement of goods will also lead to greater rates of transportation associated GHG emissions as products are transported from the country of production to the country of demand. Government regulation is therefore central to regulate and mitigate any potential long-term negative impacts and maximize the positive ones, as well as to manage the sustainable use of resources for future generations.

[215] The World Trade Organisation, "The impact of trade opening on climate change", accessed 22 August via: https://www.wto.org/english/tratop_e/envir_e/climate_impact_e.htm

'Composition effects' refers to the use of production factors for different sectors. Changes in the demand anticipated with a prospective FTA will lead to changes in composition in the production of goods and services of both parties. Inputs of production factors and specialisation will be re-allocated to those sectors that are considered the best positioned to meet the demand. However, the problem appears when the cost of goods produced in a sector that can use efficient and environmentally sound technology are different than the cost of goods produced with poor efficiency and/or with high environmental impact. In this case, government regulation is important in the determination on new sector composition, especially considering relatively heavily polluting sectors, to avoid excessive environmental risks.

'Technique effects' refers to the change of production methods that could counter potentially negative impacts that may arise from the FTA. Since trade liberalisation through non-tariff restriction mechanisms can have implications on the environment, more stringent environmental policies as well as compliance and enforcement mechanisms to lower the pollution per unit of product or other impact indicators are often developed to address such possible negative impacts. In the EU-Indonesia FTA negotiations, the possible liberalisation of foreign direct investment (FDI) is currently one of the components of interest to both parties. The FTA could, potentially, promote greater access to, and investment in, cleaner technologies and place downward pressure on energy use and GHG emissions while promoting greater efficiency in resource usage.

The net effect of an FTA on the environment will therefore depend on the resulting mix of these scale, composition and technological effects, as well as on the ultimate contents of the agreement, the speed at which liberalisation takes place, and the internal conditions within the partner countries.

6.1. Greenhouse Gas Emissions

Directly linked to industrial output, construction, energy-intensive industries and transportation are notable emitters of GHG and are as such linked to environmental impacts, due to the contribution of GHG emissions to climate change. In the case of Indonesia, an initial peak in 2006 was measured where GHG emissions were estimated at 2,381,293.7 kt. of CO_2 equivalent. The World Resource Institute has estimated that agriculture and forestry (including land conversion) have considerable impacts on emissions nation-wide, with energy, transportation and industry playing a secondary role. Finally, waste – in particular through the generation of methane gasses – further adds to this kind of emissions.[216]

The initial peak in 2006 is attributable to an unusually large number of forest fires in that year: while fire per definition is a natural emitter of CO_2, forest fires in Indonesia are a common tool for land conversion. This includes the clearing of peat-land to open space for plantations for agricultural produce such as palm oil instead.[217] North Sumatra specifically has seen massive deforestation taking place in its Leuser Ecosystem during the past two decades, while also the provinces of Riau, East Java, Central Kalimantan and Lampung measure high GHG emissions.[218]

[216] UTAMI, A., JULIANE, R., & GE, M., 2016, "Six things you never knew about Indonesia's emissions and local climate action, *World Resources Institute Blog*, accessed 22 August 2018 via: http://www.wri.org/blog/2016/06/6-things-you-never-knew-about-indonesias-emissions-and-local-climate-action

[217] The World Bank: Indonesia's Fire and Haze Crisis, 2015, accessed 13 March 2018 via: http://www.worldbank.org/en/news/feature/2015/12/01/indonesias-fire-and-haze-crisis

[218] UTAMI, A., JULIANE, R., & GE, M., 2016, "Six things you never knew about Indonesia's emissions and local climate action, *World Resources Institute Blog*, accessed 22 August 2018 via:

More recent data estimated that in 2013, Indonesia emitted 780,550.8 kt. of CO_2 equivalent,[219] of which 434,960 kt. of CO_2 equivalent were estimated to be attributable to fuel combustion alone.[220]

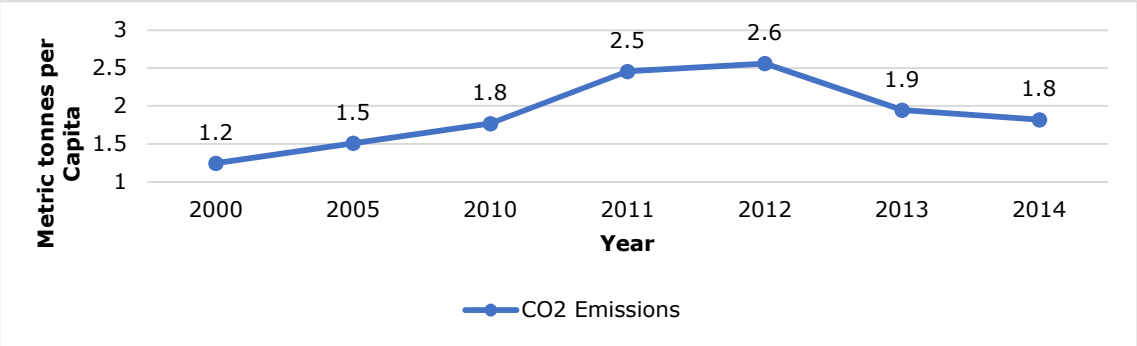

Figure 1: CO2 Emissions per year in Indonesia

Baseline scenario

Current projections of GHG emissions in Indonesia estimate an increase to over 1,100,000 kt. in CO_2 equivalent by 2020, further increasing to over 1,500,000 kt. in CO_2 equivalent by 2029.[221] This projection assumes that the most beneficial planned policy projections are introduced. This means that the actual output in the case that a GHG emissions reducing policy is not implemented may be anticipated to be higher.

The land conversion to make space for agricultural output is the single most contributing factor to GHG emissions in Indonesia. This is linked to demand for commodities such as vegetable oils, most notably palm oil, for use in a wide variety of products, including as a biofuel. In this regard, concerns have been raised on emissions associated with Indirect Land Use Change (ILUC) as well as with the additional release of emissions that occurs when plantations are set on areas with high carbon stock. Estimates of the total emissions due to ILUC in favour of vegetable oil production as a biofuel leads to an additional 952 kt. of CO_2 equivalent worldwide.[222]

The share of transport in CO_2 emissions should not be underestimated, consistently accounting for almost one-third of total CO_2 emissions, only being surpassed by construction services. The total number of motorcycles in Indonesia has almost quadrupled since 2004 and is not anticipated to slow down in the near future.[223] An

http://www.wri.org/blog/2016/06/6-things-you-never-knew-about-indonesias-emissions-and-local-climate-action

[219] Greenpeace, 'Certifying Destruction: Why consumer companies need to go beyond the RSPO to stop forest destruction'. Retrieved 15 May 2018, via: https://www.greenpeace.org/archive-international/Global/international/publications/forests/2013/Indonesia/RSPO-Certifying-Destruction.pdf

[220] The International Energy Agency, "Statistics: Co2 Emissions, Indonesia 1990 – 2015", accessed 22 August 2018 via: https://www.iea.org/statistics/?country=INDONESIA&year=2015&category=Key%20indicators&indicator=TotCO2&mode=chart&categoryBrowse=false

[221] Climate Action Tracker, "Indonesia", accessed 22 August 2018 via: https://climateactiontracker.org/countries/indonesia/

[222] The European Commission, "The land use change impact of biofuels consumed in the EU: quantification of area and greenhouse gas impacts", accessed 22 August 2018 via: https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report_GLOBIOM_publication.pdf

[223] Ministry of National Development Planning Indonesia, 2017, "Transport and climate change week: sustainable urban transport development in Indonesia", accessed 24 August 2018 via: http://transferproject.org/wp-content/uploads/2017/09/CE01-INDONESIA.pdf

added concern raised by stakeholders is the lack of application of emission filters on vehicles nation-wide, as Indonesia's policy is considered one of the more lenient.[224] A large share of energy generation is dedicated to fossil fuels, primarily coal. While the National Energy Policy currently in place encourages a greater share of renewable energy resources by 2025 (23 per cent in 2025, and 31 per cent in 2050[225]), stakeholders have expressed scepticism on the likelihood of these targets. The commitment to renewable energy as outlined in the National Energy Policy is conditioned by its economic viability, and the initially planned expansion of renewable energy projects – many of which are only likely to be introduced after 2020 – was cut in half in favour of coal-based alternatives. In fact, the same article of the National Energy Policy that commits to 23 per cent of renewable energy by 2025, expects that coal will contribute to at least 30 per cent in the same year (and a minimum of 25 per cent only by 2050). In fact, the share of renewables has remained minimal, with installed capacity prioritising geothermal and hydropower. Wind energy on the other hand only accounted for 5.7GWh by 2016.[226] Java has measured the best wind resources[227], however due to its urbanised landscape, land-prices around Java make investment in wind energy risky. Areas with lower land-prices are often distant from where the need for energy is greater, with weak grid connection or weak wind resources. Geothermal sources are widespread across all of Indonesia's major islands, yet exploration is extremely costly and often unsuitable to support renewable energy facilities. Nonetheless, 640 MW in hydro and geothermal projects were signed in 2017 and are expected to become operable after 2020 if all cites are found suitable.[228]

This long-term policy of the Indonesian government and the projected levels of coal input in its future energy mix further add to an expected increase in GHG emissions. While independent power producers are allowed to operate, the national grid is maintained by state-owned enterprise PT Pertamina, mandated by the Ministry of Energy, while also closely tied to the Ministry of SOEs. As such, it has the mandate to support renewable energy by offering a feed-in tariff per kWh that gets connected to the grid. However, it is also obliged to provide energy with subsidised rates to the country's most disadvantaged people and regions. This has resulted in fluctuating revenue streams and energy supply often relies on government-supported funding and capital investments. As the current pricing of coal in Indonesia is still cheaper than for renewables, an informal preference for coal has arisen.

These factors combined currently reduce the likelihood of Indonesia to meet its commitments under the Paris Agreement.[229] As the country's overall development takes off rapidly, emissions related to energy-consumption, land conversion, transportation, construction and peat-land burning are anticipated to continue

[224] The International Council on Clean Transportation, 2014, "Briefing: opportunities to reduce vehicle emissions in Jakarta", accessed 24 August 2018 via: https://www.theicct.org/sites/default/files/publications/ICCT_Jakarta-briefing_20141210.pdf
[225] The Government of Indonesia, "Government regulation of the Republic of Indonesia Number 79 of 2014 on National Energy Policy", accessed 22 August 2018 via: http://ditjenpp.kemenkumham.go.id/arsip/terjemahan/2.pdf
[226] International Institute for Sustainable Development, 2018, "Missing the 23 per cent target: roadblocks to the development of renewable energy in Indonesia", p. 1, accessed 13 December 2018 via: https://www.iisd.org/sites/default/files/publications/roadblocks-indonesia-renewable-energy.pdf
[227] *Ibid*, p. 5.
[228] International Institute for Sustainable Development, 2018, "Missing the 23 per cent target: roadblocks to the development of renewable energy in Indonesia", p. 7, accessed 13 December 2018 via: https://www.iisd.org/sites/default/files/publications/roadblocks-indonesia-renewable-energy.pdf
[229] Climate Action Tracker, "Indonesia", accessed 22 August 2018 via: https://climateactiontracker.org/countries/indonesia/

under a baseline scenario. The effects could prove to be particularly problematic given that Indonesia is already vulnerable to climate change.[230]

Liberalisation scenario and impact assessment

The CGE model results give a clear indication of what the projected impacts of a prospective FTA would most likely look like and are summarised in **Table 18**. The EU would see an expansion of its emissions by 0.408 MT under a conservative scenario and by 0.534 MT in an ambitious scenario. This compares to 1.486 MT and 1.655 MT for each respective scenario for Indonesia. Some of this can naturally be attributed to an increase in production (scale effects) of an FTA or using the resources the relevant value chains rely on. For instance, an increase in EU exports of motor vehicles and parts could possibly off-set emissions currently anticipated without an FTA because of more environmental-friendly production processes than in Indonesia.

Table 18: CO□ Emissions (Mt) in the EU and Indonesia for Households and Selected Sectors

	EU		Indonesia	
	Conservative Scenario	Liberal Scenario	Conservative Scenario	Liberal Scenario
Household emissions	0.141	0.200	0.492	0.525
Rice	-0.001	-0.003	0.001	0.001
Vegetable Oils and Oilseeds	-0.034	-0.035	0.007	0.007
Forestry & Wood products	-0.006	-0.006	0.010	0.011
Textiles	-0.019	-0.019	0.216	0.219
Wearing apparel	-0.005	-0.005	0.058	0.058
Leather and products	-0.016	-0.016	0.072	0.072
Paper	0.011	0.014	-0.034	-0.037
Chemical, rubber, plastic products	0.059	0.070	-0.058	-0.070
Metal products	0.030	0.033	-0.034	-0.027
Motor Vehicles and parts	0.010	0.010	-0.011	-0.012
Electronics	-0.001	-0.001	0.007	0.008
Other Sectors	0.492	0.381	1.424	1.254

[230] Tharakan, P., 2015, "Summary of Indonesia's energy sector assessment", Asian Development Bank Papers on Indonesia, p. 9, accessed 22 August 2018 via: https://www.adb.org/sites/default/files/publication/178039/ino-paper-09-2015.pdf

Total	0.534	0.408	1.486	1.655

Per sector, emissions would be by far the most significant for the textile, apparel and footwear industry, where $C0_2$ increases are anticipated to increase by over 20 per cent.[231] This can in part be attributed to the production chain of synthetic fibres, which often rely on fossil fuels as a raw material input in its production process. For this sector specifically, the ambitious scenario would result in a marginal increase of CO_2 emissions. Motor vehicles and parts see the most significant decrease in emissions under both the conservative and the ambitious scenario, with a decrease of 1.61 per cent and 1.63 per cent respectively.

For the EU, percentual decreases in CO_2 emissions can be anticipated per sector for vegetable oils and oilseed (-0.61 for both scenarios compared to the baseline), leather and product (-1.18 for both), textiles (-0.28 and -0.27 respectively), and wearing apparel (-0.35 for both scenario). The most notable increases are expected for motor vehicles and parts by 0.10 under both scenarios. This reflects respective decreases or increases in output in these sectors depending on the sector's responsiveness to trade liberalisation under an FTA.

Other GHG emissions, including methane, are similarly anticipated to increase although the extent to which their increase can be attributed to the FTA is difficult to state. Methane in itself is a standard component accompanying unprocessed waste from open dump sites, but is also a commonly released by-product in the meat and dairy industry, as well as by effluents in palm oil mill ponds.[232] The Institute for Agriculture & Trade Policy (IATP) in collaboration with non-profit GRAIN have investigated the share of the meat and dairy industry in light of CO_2 emissions, and concluded that many meat or dairy producers downplay emissions or neglect to set reduction targets.[233] When comparing the maximum emissions allowed under the Paris Agreement with a projected increase of emissions by these sectors under a business-as-usual scenario, meat and dairy will account for 27 per cent of the maximum emissions allowed by 2030, and for 81 per cent by 2050.[234] As one of the core product groups likely to benefit from a prospective FTA, the environmental impacts of meat and dairy-related GHG and methane emissions should not be underestimated. Similarly, fertilisers used in most agricultural techniques are important sources of nitrogen: one ton of nitrogen fertiliser is estimated to emit nearly 7 tonnes of CO_2 equivalent.[235]

Current findings also highlight the role of transportation methods in continued GHG emissions. Increased traffic consequentially resulting from increased bilateral trade flows is expected to experience a notable increase in GHG emissions released by shipping and aviation. Currently, shipping routes between the EU and Indonesia require approximately three weeks and are mainly indirect[236], however if a potential EU-Indonesia FTA would lead to an increase of bilateral trade to an extent that direct shipping routes between the two become profitable, transportation emissions could even decrease after an FTA is concluded. This was found to be the case for

[231] 2.88 per cent for textiles, 12.29 per cent for leather products and 10.32 per cent for wearing apparel.
[232] The Netherlands and You, "Creating wealth from waste: Dutch expertise in palm oil biomass", accessed 23 August 2018 via: https://www.netherlandsandyou.nl/binaries/netherlandsandyou/documents/publications/2016/10/19/creating-wealth-from-waste/creating-wealth-from-waste-10.pdf+&cd=3&hl=ko&ct=clnk&gl=us
[233] The Institute of Agriculture & Trade Policy, & GRAIN, "Emissions impossible: how big meat and dairy are heating up the planet", accessed 24 August 2018 via: https://www.iatp.org/emissions-impossible
[234] This assumes that other sectors would cut emissions in line with the objectives of the Paris Agreement.
[235] O Ecotextiles, "Why do we offer safe fabrics?", accessed 23 August 2018 via: https://oecotextiles.wordpress.com/category/co2-emissions-in-textile-industry/
[236] Vessels dock in at least one transit-port, usually Singapore or Johor, or to a lesser extent Hong Kong.

the EU-Canada agreement, where Transport & Environment found that ships no longer required to dock in transit-hubs in the United States.[237]

FTAs recently concluded by the EU include a commitment to cooperate on climate change related issues and to implement MEAs, including UNFCCC and the Paris Agreement. This then is also the expectation for an EU-Indonesia FTA. While this is of course dependent on the positions and needs of the signatory parties, the Canada-EU and the EU-Vietnam FTAs represent reference points in this area. At the same time, it should also be noted that some stakeholders have expressed concerns that GHG and climate change related provisions could act as a barrier to trade liberalisation.

A possible technological effect arising from the FTA that could have a minimising effect on GHG emissions relates to the inclusion of investment liberalisation in the agreement. This could provide room for a wide variety of fields of technological innovation mitigating negative environmental effects, including renewable energy, emissions capturing, e-vehicles as well as transport and public works among others. Furthermore, these could contribute to both parties' respective commitments under the Paris Agreement, as well as contribute to more cost-effective and resource efficient global value chains. Currently however, restrictions on Indonesia's Negative Investment List limits access for EU companies to enter this market.[238] An FTA could thus consider **commitments for the liberalisation of FDI for climate-friendly goods and services, including in the renewable energy sector**.

In line with recent EU agreements, an EU-Indonesia FTA **could include a commitment to cooperate on climate change related issues and the shared undertaking to the effective implementation of MEAs, including the UNFCCC and the Paris Agreement**. While this is of course dependent on the positions and needs of the signatory parties, provisions in these areas are included in some of the more ambitious FTAs to address this issue.

6.2. Water Quality and Resources

The implications of trade liberalisation on water quality and resources can take place through two main channels: through the depletion of water sources and through a degradation of a water quality due to industrial waste and run-off reaching the water stream. This would be caused in particular by those industries that relate to large quantities of raw sewage, detergents, fertilisers, metals, chemical products, antibiotics, dyes and oils. One of the more common threats to water quality includes eutrophication, where mainly phosphorus and nitrogen enter available bodies of water. These drastically affect the beneficial uses of the water source and can often be directly linked to agricultural runoff, domestic sewage, and industrial effluents leaking or being pumped into water sources.

Baseline scenario

The Indonesian government has set out a 100-0-100 target, where 100 per cent of the population has access to drinking water and sanitation respectively, while 0 per cent of the population will live in slums by 2019. Currently, the local government is the key actor in the management of water quality and resources, and investment in the field of sanitation has been slow in taking off.[239] This is further complicated as local government units often do not have ad hoc institutions or departments with

[237] See: Transport & Environment, "Air pollution from ships", accessed 23 August 2018 via: https://www.transportenvironment.org/what-we-do/shipping/air-pollution-ships
[238] KADIN Indonesia, APINDO, & EuroCham Indonesia, 2017, "Indonesia-EU business inputs towards Comprehensive Economic Partnership Agreement", pp. 15 – 16.
[239] USAID, "USAID water and development country plan for Indonesia", accessed 23 August 2018 via: https://files.globalwaters.org/water-links-files/Indonesia%20Country%20Plan%20final.pdf

the mandate of developing sanitation planning and implementation. Additionally, the necessary components to drive the implementation of river sanitation and rehabilitation are often lacking, including with regard to budget, capacity and technical expertise. Citizen engagement mechanisms are often underdeveloped, and stakeholders expressed sceptical views on the Indonesian government's ability to achieve these targets.

Of Indonesia's current fresh water withdrawal, a large majority was used for agriculture (81.8 per cent), with only minor withdrawals attributed household use (11.6 per cent).[240] Agricultural wastewater degrades the water quality not only due to runoff reaching the main water bodies, but can also affect the quality and level of both groundwater and surface-water.[241] Decayed plants, pesticides and fertiliser residues in agricultural production, as well as antibiotics, livestock manure and dead animals from the livestock industry, are all hazardous to the country's water quality. Furthermore, cooling processes used in heavy industry and thermal power stations tend to change the ecology of water-bodies due to shifts in temperature. Waters used in pharmaceutical and medical industries can similarly become polluting due to the risk of being affected by the chemicals used in the related industry processes.

This is the foreseeable trend as the demand for water is anticipated to increase in relation to continued population growth as well as its related agricultural, industrial and domestic needs. Projections by the Asian Development Bank for 2030 estimate the need for withdrawal of cubic meter per second to double from 14 to 28.7. Almost three-fourths of this would be taken up by the industries in Java alone.[242] Java is a particularly important contributor to Indonesia's domestic rice production – a water intense industry – and displacement of rice paddies to make place for urban areas to other provinces can be anticipated. In Sumatra alone, 30,000 ha of new rice paddies are anticipated to come into existence by 2021 alone while Sulawesi is also witnessing an expansion of rice production.[243] This raises questions over the effectiveness of future rice production in relation to water efficient technology in these newly developing areas, as well as to concerns over agricultural run-off entering water bodies.

Case Study: The Citarum River Basin and its tributaries.

The Citarum River in West Java – accounting for nearly half of the water uptake in the entire island – is considered to be one of the most polluted rivers on earth, witnessing a constant intake of wastewater discharge. The river is a lifeline to three major reservoirs, the Sugalin, Cirata and Jatiluhur reservoirs in West Java, and its water is generally used for agricultural, domestic and industrial consumption as well as electricity generation.[244] Currently, approximately 2,000 industrial and manufacturing facilities exist along the river and the combined wastewater has consistently led to water degradation over the past decades. Of

[240] The World Bank: World Development Indicators, accessed 12 March 2018 via: http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#
[241] The Food and Agriculture Organisation of the United Nations, Indonesia, accessed 13 March 2018 via: http://www.fao.org/nr/water/aquastat/countries_regions/IDN/
[242] The Asian Development Bank, "Indonesia: country water assessment", p. 68. Accessed 23 August 2018 via: https://www.adb.org/sites/default/files/institutional-document/183339/ino-water-assessment.pdf
[243] *Ibid.* p. 72
[244] World Agroforestry Centre, "Citarum, West Java", accessed 23 August 2018 via: http://rupes.worldagroforestry.org/rupes-sites/indonesia/citarum

these facilities, 71 have been identified as actively polluting the Citarum River basin alone.[245] Textile and apparel manufacturing accounts for approximately 10 per cent of the total number of factories along the Citarum River basin, and factory effluents including dyes have affected water used for drinking and the irrigation of crops downstream. In a study conducted by Greenpeace, samples of wastewater discharged via three separate outfalls identified traces of nonylphenol and nonylphenol ethoxylates – detergents and surfactants in textile production linked to hormone disrupting properties. Furthermore, tributyl phosphate, a dye carrying chemical, was found in samples as well as among others antimony and p-terephthalic acid, specifically used in the manufacturing of polyester.[246]

Previous water treatment efforts have led to mixed results, but the most challenging issue relates to the absence of an adequate policy framework preventing contamination. Part of the problem is the expansion of agricultural areas and industrial activities using the river for production: fisheries, downstream shrimp ponds, water-withdrawal for irrigation and the withdrawal and processing of drinking water. A tributary of the Citarum River, the Cikijing River has also experienced unregulated waste water effluents released into its river basin on top of a spillover of waste it already occurring from the Citarum River. Waste from the textile industry has been linked to pollution of the Cikijing River.[247]

Liberalisation scenario and impact assessment

Scale and composition effects are estimated to become the major contributors to environmental degradation of water quality and resources under a prospective FTA. As illustrated by the case study on the Citarum River, the current ability of the government to engage in water rehabilitating practices has had limited success. This is particularly worrisome in view of an increased expansion of the major concerns on environmental degradation in the country's water bodies. Environmental standards related to the production of textile products are often fragmented and inconsistent and driven by consumer demand. While European fashion and retail brands became more transparent in achieving greater sustainability in their supply chains, reports point at continued concerns on environmental degradation regarding their suppliers.[248] Even in cases where suppliers had installed monitoring mechanisms to control their toxic effluents, actual compliance remains challenging.

While the increased demand for industrial and manufacturing products exported to the EU is expected to have negative implications for water quality in Indonesia if left unchecked, the findings of the SIA also identify the potential for the EU for supporting the use of improved technology in relevant value chains. This would relate not only to the environmental standards of the production chain of EU firms operating in Indonesia – and the good practices they could implement in their

[245] Peakwater.org, 2014, "Citarum polluters more than 71 companies: deputy governor", accessed 23 August 2018 via: http://peakwater.org/2014/02/citarum-polluters-more-than-71-companies-deputy-governor/

[246] Greenpeace, "toxic threads: polluting paradise", p. 6, accessed 23 August 2018 via: https://www.greenpeace.org/archive-international/Global/international/publications/toxics/Water2013/Toxic-Threads-04.pdf

[247] Environmental Justice Atlas, "Textile factories in Indonesia pollute water in Cikijing river, tributary of Citarum river, Indonesia", accessed 23 August 2018 via: https://ejatlas.org/conflict/pt-kahatex-pt-insan-sandan-internusa-and-pt-five-star-textile

[248] WALHI JAWA BARAT, Ecologistas en Accion, Ethical Consumer, and Changing Markets Foundation, 2018, "Dirty Fashion revisited: spotlight on a polluting viscose giant". Accessed 23 August 2018 via: http://changingmarkets.org/wp-content/uploads/2018/02/DIRTY_FASHION_REVISITED_SPOTLIGHT_ON_A_POLLUTING_VISCOSE_GIANT-1.pdf

production methods related to water pollution – but also to a broader dissemination of highly innovative water cleaning and reuse technologies in Indonesia. Clean river sources would have enormous benefits such as reducing the pressure on remaining water-sources for drinking water, improving sanitation and a cleaner environment, as well as reducing costs for industries able to reuse treated waste-water.

No FTA to date has included provisions on water quality and resources, and the impact of industrial activity on water is only referred to indirectly. Cooperation on water-related issues is commonly referred to within the wider economic cooperation agreement or partnership instead. It is then often related to waste-water treatment, sanitation and water accessibility. A **combination of environmental standards with effective compliance and enforcement methods on both parties** could be considered so that potential negative impacts on water quality and resources in both Indonesia and the EU can be mitigated in the long run. Furthermore, **capacity building mechanisms, and cooperative action to ensure water environment mitigation measures could be agreed upon across the various segments of the river flow**. The EU, with its many rivers fragmented by governance entities – either local or different member states – has been at the forefront of successful collaborative action and could function as a guiding entity.

6.3. Land Use and Soil Quality

The topic of land use and soil quality – in particular related to deforestation – is of concern to a variety of stakeholders involved in the SIA. Such concerns relate to demand-driven land use change mainly originating from agricultural production in previously undeveloped areas, on the basis of the already alarming rates of deforestation that have been ongoing during the past two decades resulted in an estimated six million hectares of primary forests lost between 2000 and 2012.[249]

Forests in Indonesia act as a carbon sink, balancing GHG emissions by the uptake these forests, mangroves and peat lands naturally allow for. The expansion of agricultural land can lead to deforestation both directly and indirectly.[250] The extent to which GHG emissions increase during deforestation is estimated at approximately 400 tonnes of carbon per hectare from converting tropical forests for commercial purposes.[251] If peat land is cleared, additional 1,550 tonnes of carbon per hectare are estimated to be released from previously stored carbon stocks, while clearing forests using fire is estimated to release an additional 207 to 650 tonnes of carbon emissions.

Baseline scenario

In view of Indonesia's population growth and increasing consumer demand, an increase in agricultural expansion – next to industrial and residential expansion – can be expected in Indonesia over the next decades. This will have profound implications for land use to make way for commercial activities. The expansion of agricultural land should be seen as a result of the relatively low food productivity in

[249] Conservation International Indonesia, 2016, "Sustainable Landscapes Partnership in Indonesia", accessed 27 August 2018.
[250] The European Comission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", p. 51, accessed 27 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf
[251] Even if replaced by "plant-based" commercial activities an increase in carbon emissions will take place from deforestation. For example, palm oil plantations are estimated to only store 91 tonnes per hectare indicating a net increase in emissions from land conversion of previously forested terrain. This counters the intake of carbon dioxide from palm oil planted on grassland or scrubland which in some cases can result into a net uptake.

Indonesia – with yields being low due to lacking or outdated agricultural equipment, limited use of balanced fertiliser, post-harvest storing, and ineffective, non-technical irrigation systems.[252] One of the policies and regulatory objectives as outlined by the Coordinating Ministry of Economic Affairs in its economic development master plan up to 2025 is to expand the existing planting area by creating new paddy fields in combination with the rehabilitation and conservation of agricultural land.[253] In Java, traditional agricultural land is either depleted of fertile minerals or has to make way for residential and industrial zones. In effect, the agricultural development of Sumatra as a supplier to Java's demand risks the conversion of currently forested areas.[254] This mainly relates to rice, but also rubber, coffee, cocoa and palm oil. The Indonesian Association of Palm Oil Producers (GAPKI) has estimated a fifty per cent increase in palm oil output by 2025 from 2014 levels for example, boosted by a significant expansion of small- and medium-sized enterprises.[255]

Stakeholders are particularly worried about the environmental implications arising from the use of fire for land conversion. This is particularly the case for Kalimantan and Sumatra, where burning of peat land can last for several months every year due to lacking fire control. It is noteworthy that since 2015, the Indonesian government has been active in taking enforcement action, such as through administrative sanctions and the revoking of licenses, against companies and individuals responsible for fires.[256] Furthermore, Government *Regulation 57/2016* to reduce emissions from peat land degradation, which also covers peat land protected areas for non-forested purposed. The extent to which the government can effectively enforce this regulation on unregistered plantation owners however would determine the extent to which ILUC-related emissions can be mitigated.

The trade in illegal timber is also a concern for stakeholders, particularly when involving illegally- and unsustainably-harvested timber. Ongoing engagement between the EU and Indonesia however has significantly improved prospects for mitigation: to counter the access of illegal timber and timber products into the EU, licenses under the FLEGT Voluntary Partnership Agreement between the EU and Indonesia started to be issued in November 2016. Through a FLEGT license, the legal framework governing timber production in Indonesia was defined – including procedures and requirements, which clarifies for EU consumers the legality and sustainability of origins, production and harvesting methods of these products. the FLEGT VPA involves a wide variety of stakeholders, including indigenous peoples, and has made laws better understandable, endorsed more easily and thus easier to implement. When looking at REDD+ however, the Indonesian national administration has been less than successful in stopping deforestation in the country.[257] This is particularly considering ongoing issues of malpractice and land-grabbing, even while several safeguard and stakeholder engagement mechanisms

[252] The Coordinating Ministry for Economic Affairs, Republic of Indonesia, 2011, "Master plan acceleration and expansion of Indonesia Economic Development 2011 – 2025", p. 123, accessed 27 August 2018 via: https://www.aseanbriefing.com/userfiles/resources-pdfs/Indonesia/FDI/ASEAN_Indonesia_Master%20Plan%20Acceleration%20and%20Expansion%20of%20Indonesia%20Economic%20Development%202011-2025.pdf
[253] *Ibid*.
[254] *Ibid*., p. 69
[255] The European Comission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", p. 14, accessed 27 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf
[256] LANG, C., 2016, "Indonesia: fires, peat restoration, kidnappings, and more fires", *REDD-Monitor*, accessed 27 August 2018 via: http://www.redd-monitor.org/2016/09/08/indonesia-fires-peat-restoration-kidnappings-and-more-fires/
[257] LANG, C., 2017, "After seven years, Norway's US$1 billion REDD deal in Indonesia is still not stopping deforestation", *REDD-Monitor*, accessed 27 August 2018 via: http://www.redd-monitor.org/2017/12/28/after-seven-years-norways-us1-billion-redd-deal-in-indonesia-is-still-not-stopping-deforestation/

were incorporated in the initial planning of the project. In 2015, the REDD+ Agency was integrated into the Ministry of Environment and Forestry, a change that reduced its autonomy but increased its authority in managing forests, but which consequentially created concerns among several stakeholders as to its effectiveness in achieving its initial objectives.[258] The issue of how Indonesia will be able to effectively address land-use change and deforestation will continue to affect significantly any environmental developments in the near future.

Liberalisation scenario and impact assessment

The scale effects of an EU-Indonesia FTA under the conservative liberalisation scenario, as per the CGE model, would witness an increase in the production of mainly forestry and wood products (0.8 per cent), while also red meat (0.5 per cent) and other animal products (0.3 per cent) increase. However, most products associated with deforestation will witness minor impacts in their domestic output in Indonesia under the conservative FTA scenario, where vegetable oils and oilseeds – including palm oil – would also decrease by 0.1 per cent. This trend is reflected in the ambitious liberalisation scenario, which witnesses an increase of several forestry and wood products (0.9 per cent), red meat (0.6 per cent), and other animal products (0.4 per cent), but a decrease of local production in Indonesia of vegetable oils and oilseeds (decreasing by 0.04 per cent). However, at the same time, it is noteworthy that bilateral exports from Indonesia to the EU for these products are all anticipated to increase – by as much as 747 per cent in the case of red meat.

Sustainability certification schemes have so far led to mixed responses as a tool to ensure the prevention of environmental degradation in the production of consumer goods. The certifications for palm oil are widespread, and in Indonesia include the Roundtable for Sustainable Palm Oil (RSPO), the International Sustainability and Carbon Certification (ISCC), and the Indonesian Sustainable Palm Oil (ISPO). Among these, RSPO accounts for broadest scope but only partially addresses the activities that affect deforestation, biodiversity, peat land conversion, water pollution and GHG emissions.[259] With the exception of water pollution, ISCC does address a wider range of environmental objectives, but has limited or no criteria relating to social objectives including land use rights, treatment of smallholders and forced and child labour. The ISPO aims to harmonise social and environmental issues with production feasibility but has triggered criticism from several civil society actors. Stakeholders from the palm oil sector have pointed out the arbitrariness of certification required for palm oil alone while other commodity goods do not have to comply with standards. This not only refers to other vegetable oils but also other consumer goods in general. These stakeholders advocate for the formulation of relevant standards for more products, which would further enhance the parties' ability to mitigate unexpected environmental consequences. Recent research by IUCN for example has highlighted that palm oil alternatives might be even more environmentally-degrading due to lower production yields, although further research is still conducted.[260]

Ultimately, the impacts of a prospective FTA on deforestation will also depend on whether it would include dedicated provisions. Precedents set in the FTAs recently

[258] LOU, J., "REDD+: A Failed Story in Indonesia?", *Public Policy Indonesia*, accessed 27 August 2018 via: https://publicpolicyindonesia.wordpress.com/2017/02/10/redd-a-failed-story-in-indonesia/
[259] The European Comission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", p. 24, accessed 27 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf
[260] MEIJAARD, E., GARCIA-ULLOA, J., SHEIL, D., WHICH, S. A., CARLSON, K. M., JUFFE-BIGNOLI, D., BROOKS, T. M., 2018, "Oil palm and biodiversity: a situation analysis by the IUCN Oil Palm Task Force", pp. 51 – 52, accessed 27 August 2018 via: https://portals.iucn.org/library/sites/library/files/documents/2018-027-En.pdf

concluded by the EU could suggest the inclusion of references to CITES or FLEGT – as was done in the EU-Vietnam FTA. Civil society stakeholders proposed to make the link between deforestation and certain commodities more pronounced in recognition of the implications these good may have on indirect land-use change and the general unauthorised or illegal 'use' of forests. [261] **Recognising the merit of this link, a prospective FTA could include a shared commitment to strengthen land-management best-practices[262] and the use of sustainably managed forests**. Furthermore, **expanding FLEGT coverage to include small-scale timber production** would be a first step to minimise LUCF implications of expanded output. At the same time, concerns have been raised of the inability of small-scale producers (as well as community-based plantations, community forestry, customary right forests, and village forests) to meet FLEGT production standards in light of lacking financial and technical capabilities.

Certification schemes have proven useful to enhance the environmental sustainability of certain commodities. Notable examples as detailed in Section 6.3 of the Interim Report include palm oil and timber. In parallel to the FTA, **support could be given to sustainability certification schemes**, including by considering their use also for other commodities as a way to minimize the possible negative environmental implications that could arise with their production. Examples of this could include rubber, cocoa, and agricultural produce, as well as meat and dairy among others

6.4. Waste, Waste Management and Marine litter

Waste-management in Indonesia requires a wide variety of solutions. Estimates place the daily generation of waste in Jakarta alone at 7,500 tonnes. Most municipalities in the country are in charge of waste-management themselves, yet some major cities in Indonesia employ private sector initiatives instead.[263] At the same time, national authorities aim to set-up a country wide policy on land-based waste management, which has led to ambiguities in terms of the competent authority.[264] Some of the existing facilities in Indonesia include treatment factories, controlled landfills, sanitary landfill and Material Recovery Facilities (MRFs).[265]

Baseline scenario

The World Bank estimates that the total municipal solid waste generation of Indonesia will double from 61,644 tonnes per day in 2012 to 151,921 tonnes per day by 2025.[266] A large share of the current composition of Indonesia's solid waste is taken up by food waste. It is estimated that food wastes accounts for over 60 per cent of the total waste, followed by paper-waste (11 per cent), plastics (10 per

[261] ClientEarth, 2018, "Improving the proposed forestry provisions in the EU-Indonesia FTA", accessed 27 August 2018 via: https://www.documents.clientearth.org/library/download-info/improving-the-proposed-forestry-provisions-in-the-eu-indonesia-fta/
[262] For example: avoiding practices of land-grabbing, (uncontrolled) usage of fire for land-clearing, strengthening awareness of and respect for (indigenous peoples) land rights.
[263] Asia Institute of Technology, 2010, United Nations Environment Programme, "Municipal Waste Management Report: Status-quo and Issues in Southeast and East Asian Countries", available via: http://www.rrcap.ait.asia/Publications/MW_status_quo.pdf
[264] WRIGHT, T., & WADDELL, S, "How can Indonesia win against plastic pollution?", *The Conversation*, accessed 23 August 2018 via: https://theconversation.com/how-can-indonesia-win-against-plastic-pollution-80966
[265] Asia Institute of Technology, 2010, United Nations Environment Programme, "Municipal Waste Management Report: Status-quo and Issues in Southeast and East Asian Countries", p. 16, available via: http://www.rrcap.ait.asia/Publications/MW_status_quo.pdf,
[266] The World Bank, 2012, "What a waste: a global review of solid waste management", *Urban Development Series Knowledge Papers*, accessed 23 August 2018 via: https://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1334852610766/What_a_Waste2012_Final.pdf

cent), and glass (1.5 per cent).[267] Plastics and electronic waste will increase their share in Indonesia's waste streams in the near future, with less than half expected to be recycled as few adequate waste management policies are anticipated.[268] This relates to high associated costs to develop a structured recycling industry in the country, either financially or from an institutional perspective. At the same time, however, private sector involvement in the collection, transportation and disposal of waste has expanded.

Based on current projections, an increase in plastic consumption is anticipated: between 2016 and 2017 alone there has been a 25 per cent increase of plastic consumed in weight per person[269] – a trend that is expected to pose serious environmental consequences without adequate mitigation measures. Outdated technologies for waste handling and treatment at the local level will also continue to represent a major constraint, together with inadequate technical capacities. The polluting effect of plastic waste as marine litter is particularly noteworthy, as it continuously releases toxins through its process of chemical break down. These toxins, in combination with plastic objects and micro plastics in general, pose health risks when consumed by both people and wildlife.[270] This form of pollution mainly occurs through disposable plastic products including cups, straws, bottles and bags. A short-lived plastic tax adding 0.2 USD to each plastic bag sold in retail was introduced only to be scrapped once more in 2016.[271] Despite such challenges, Indonesia has committed to reduce plastic waste by 70 per cent by 2025[272] even though waste management laws and regulations currently neglect to specifically mention plastic waste. Without clearly defined land-based waste management practices in place, little change can be achieved in decreasing the amount of marine litter including plastic waste.

The Indonesian government has recently started to explore Waste-To-Energy (WTE) solutions – an option that would simultaneously tackle escalating waste problems and Indonesia's reliance on fossil fuels. This relies on waste incineration to generate electricity, heat and potentially fuel – alarming stakeholders on the possible hazardous side-effects related to the release of toxic fumes.[273] This follows the implementation of pilot projects aiming to utilise organic municipal waste as a resource – for example through composting.

Liberalisation scenario and impact assessment

[267] Asia Institute of Technology, United Nations Environment Programme, "Municipal Waste Management Report: Status-quo and Issues in Southeast and East Asian Countries", 2010, p. 9, available via: http://www.rrcap.ait.asia/Publications/MW_status_quo.pdf
[268] UN Environment Programme, 2017, "Waste Management in ASEAN Countries", P. 20 – 22, accessed 23 August via: https://wedocs.unep.org/bitstream/handle/20.500.11822/21134/waste_mgt_asean_summary.pdf?sequence=1&isAllowed=y
[269] GOKKEN, B., 2018, "As planned excise flops, Indonesia ponders how to give up plastic bags", *MongaBay*, accessed 23 August 2018 via: https://news.mongabay.com/2018/07/as-planned-excise-flops-indonesia-ponders-how-to-give-up-plastic-bags/
[270] WRIGHT, T., & WADDELL, S, "How can Indonesia win against plastic pollution?", *The Conversation*, accessed 23 August 2018 via: https://theconversation.com/how-can-indonesia-win-against-plastic-pollution-80966
[271] While initially imposed by the Finance Ministry, strong opposition from plastic manufacturers and the Ministry of Industry encouraged a reversal in policy.
[272] The Coordinating Ministry for Maritime Affairs of the Republic of Indonesia, "Indonesia Against Marine Plastic Debris", *The United Nation Ocean Conference*, accessed 23 August 2018 via: https://oceanconference.un.org/commitments/?id=14387
[273] MECCA, B. M. "Is Waste-to-Energy Technology a Permanent Solution to Indonesia's Garbage Problem?", *The Jakarta Post*, February 2017, available via: http://www.thejakartapost.com/academia/2017/02/01/is-waste-to-energy-technology-a-permanent-solution-to-indonesias-garbage-problem.html

In the absence of mitigation measures, an increase in industrial output as foreseen under an FTA – under either the conservative or the ambitious modelling scenario – would result in an increase of generated waste. The findings of the SIA highlight the need to take such concerns into account when analysing the possible environmental impact of EU exports to Indonesia and how these products are treated after use. This is relevant in view of the significant increases expected for EU exports of non-biodegradable products such as vehicles and parts (+166 per cent), other manufacturing (+98 per cent), metal products (+62 per cent), other machinery (+61 per cent), chemical, rubber and plastic products (+60 per cent) and electronics among others (+29 per cent). Under the ambitious scenario, it is expected EU exports of these product groups would further expand, as detailed in **Chapter 3**, further highlighting the need for effective waste treatment and mitigation measures to be considered in conjunction with a prospective FTA.

Effectively reducing the total volume of waste resulting from an FTA would be key to effectively mitigate its possible negative environmental implications: this includes waste generated domestically in either party, as well as new waste streams that arise after imported goods get discarded. Here especially Indonesia's capacity to ensure sustainable waste management for non-biodegradable products imported under a prospective FTA would be an issue of concern: these often require a more complex waste management system to dispose of (through disassembling, recycling or re-use in the circular economy), and current capacity in Indonesia is barely existing.

However, this could also provide opportunities for both parties to optimise notions of a circular economy in their wider partnership. Technological know-how to convert waste into added value – or feed it back into the production processes – could eliminate costs in the long-run while having positive side effects on water and air-quality, disaster risk reduction, and human health. This relates to the extent investment in waste management services will be covered by an FTA, as waste management of non-hazardous wastes has been removed from the Negative Investment List[274] yet further possibilities to opening up this sector for EU investment could be explored. **Joint work to supplanting dumping and incineration practices for waste** – reuse, remanufacture, resource extraction from wastes for new production processes etc. **– could be considered to reduce the environmental effect of waste generation**. At the same time, the importance of consumer commitment to waste reduction and waste recycling are separate issues of importance.

6.5. Ecosystem Services, Biodiversity and Protected Areas

Characterised by many low-lying islands, Indonesia is vulnerable to impacts on its coastal ecosystems due to environmental degradation and increased flooding among other issues.[275] Throughout its island ranges, a wide variety of natural habitats – including rainforests, wetlands, atolls, mangroves, dense forests and mountainous areas among others – result in a mega-diversity in ecosystems. Climate change due to increased GHG emissions is one of the main contributors to changing ecosystems and a diminished range of biodiversity present.[276] A climate-

[274] The President of the Republic of Indonesia, "Presidential Regulation of the Republic of Indonesia number 44 year 2016 concerning 'Lists of business fields that are closed to and business fields that are open with conditions to investments'", accessed 24 August 2018 via: https://www.indonesia-investments.com/upload/documents/Negative-Investment-List-May-2016-Indonesia-Investments.pdf

[275] Ibid.

[276] The World Bank: Biodiversity, Climate Change, and Adaptation: Nature-based Solutions from the World Bank Porfolio, 2008, available via: http://siteresources.worldbank.org/INTBIODIVERSITY/Resources/Biodiversity_10-1-08_final.pdf. Further

change related sea-level rise linked to industrial output will not only affect coastal eco-systems but might also directly impact human activities. Further declines in biodiversity can often be linked to unsustainable land use, leading to habitat loss and fragmentation, overexploitation as well as direct pollution. At the same time, over-exploitation forms a major threat to fish populations across the country: 163 fish species were listed as already threatened in 2017. [277] Nearly 70,000 coastal villages rely on the fish populations which live in its coral and marine diverse eco-systems as a direct source of income.

Baseline scenario

The expected expansion of Indonesia's agricultural, residential and industrial terrain affects in particular the flora and fauna living close to human activity. The reduction of living space leads to greater pressures on food and water-resources within and near ecosystems, which often comes at the expense of less adaptable species (including flora). In effect, animals start to encroach on human territory raiding agricultural production and livestock as an alternative food resource, which in some occurrences leads to retaliating killings. The link between biodiversity and the expansion of human activities however is more complex than merely the lack of living space.

The capturing of animals for trade is not uncommon, especially as enforcement and compliance mechanisms to prevent illegal trade of live species in Indonesia is anticipated to remain insufficient. Currently, the EU's main imports of meat products with Indonesian origin are frog legs.[278] Unlike most other meat products, frogs are typically caught in the wild – the EU alone accounting for 58 to 145 million frogs annually. The total number of exports – as well as those consumed domestically – is expected to be much larger, which raises concern regarding the depletion of frog populations in Indonesia. The ecosystem impact of the depletion of the frog population includes an increase in pests and insects (a natural food-source for frogs), which in turn results in negative implications for crop production and human health. Although no recent surveys on the population of wild frogs across Indonesian islands have been conducted, historic patterns from India, Bangladesh or France highlight the need of taking the sustainability and long-term implications of trade in frog legs without any safeguards into consideration.

Trade in live animals between the EU and Indonesia should also be considered – particularly in relation to exotic species. This includes exotic mammals while live reptiles and reptile skins[279] also stand out.[280] Current issues affecting the trade of reptiles often originate from a lack of awareness of which species are protected under CITES: customs officers experience difficulties to distinguish among endemic species to Indonesia with often minor physical differences but which have differing legal status for trade. For reptile skins for example, the International Trade Centre has specified that a large quantity of these originate from the wild rather than from farms.[281] This implies lacking verification systems regarding origin and sourcing, as

details, in particular focusing on the link to land conversion, were also already introduced in sections 6.1 and 6.3 of this interim report.

[277] The World Bank: Biodiversity, Climate Change, and Adaptation: Nature-based Solutions from the World Bank Porfolio, 2008, available via: http://siteresources.worldbank.org/INTBIODIVERSITY/Resources/Biodiversity_10-1-08_final.pdf

[278] EuroGroup for Animals, "Animal Protection in EU-Indonesia trade negotiations", stakeholder written contribution.

[279] The value of live imported reptiles from Indonesia in 2017 was estimated at over €350,000, while reptile skins originating from Indonesia were valued at €2.4 million.

[280] EuroGroup for Animals, "Animal Protection in EU-Indonesia trade negotiations", stakeholder written contribution, p. 2

[281] International Trade Centre, 2012, "The Trade in South-East Asian Python skins", accessed 24 August 2018 via: http://www.intracen.org/The-Trade-in-South-East-Asian-Python-Skin/

well as compliance and enforcement in case of the trade in illegal species.[282] Stakeholders highlighted the role that Indonesian breeding and rescue centres play in so-called "species laundering", where the origin of rescued species born in the wild is amended to indicate that they were raised in captivity. This often is sufficient to account for legal international trade when often the specimen should enjoy protected status. Furthermore, the lack of awareness among European consumers buying reptiles constitutes a potential problem within the EU in the long-term as reptiles are more likely to be abandoned after purchase. Many of these are invasive alien species which could have wide-ranging consequences for European ecosystems and biodiversity upon unmonitored release.

Liberalisation scenario and impact assessment

The scale and composition effects of the prospective FTA for Indonesian biodiversity and ecosystems relate to the encroachment of nature reserves in favour of industrial zones – including special economic zones. Under CITES, trade in flora and fauna is regulated through negative listing which explicitly identifies species illegal for international trade and assumes that all other species are legal for trade. However, the experience of EuroGroup for Animals suggests that illegal trade in wildlife was still possible at the stages of sourcing, distinguishing origin, stockpiling, and customs procedures due to often minimal physical differences between legal and illegal specimen. As such, **an FTA could consider moving towards positive listing instead**: **to allow trade of only those species where both FTA parties are certain that the trade of these has no long-term implications on local populations, internal ecosystems or the broader biodiversity in each party.** However, an important downside of this approach is that it would depart from the internationally agreed framework, thereby raising questions with regard to its feasibility and to its possible impacts on global governance with regard to wildlife trade.

Under the FTAs concluded by the EU, biodiversity is addressed within the commitments of both parties to MEAs and/or within provisions on trade-related aspects of the environment. The EU-Vietnam FTA explicitly refers to cooperation on matters of biodiversity "as appropriate", and this kind of language could be integrated also in a prospective FTA. Additional elements could be the definition of specific boundaries to which mutual trade is allowed to have environmental implications on biodiversity and ecosystems more concretely, or to establish bilateral monitoring and enforcement mechanisms in case activities exceed those boundaries.

[282] United Nations Conference on Trade and Development, 2014, "Traceability systems for a sustiainable international trade in South-East Asian python skins", accessed 24 August 2018 via: http://unctad.org/en/PublicationsLibrary/ditcted2013d6_en.pdf

7. Impacts Associated with Cross-cutting Issues

7.1. Investments

As the negotiations on a possible investment chapter in the FTA are ongoing, the following assessment is based on assumptions taken from current legislation, from the reports of the 5th and 6th round of negotiations for a Free Trade and Investment Protection Agreements between the European Union and Indonesia and from the text of Free Trade Agreement between the EU and Vietnam. [283] The latter documents have been chosen because they generally are regarded as a good reference point for future trade and investment relationships between the EU and Southeast Asia as a whole, irrespective of considerations on architecture. At the same time, it is acknowledged that the EU-Indonesia agreement will not be identical to the EU-Vietnam ones. After briefly discussing the baseline on investments policies in Indonesia and the EU, the economic, social, human rights and environmental impacts through further liberalisation are discussed.

Baseline scenario

In general, Indonesian laws and regulations allow for two ways to invest in Indonesia: through a limited liability company for foreign investment purposes or by establishing a representative office. When referring to restrictions on foreign direct investment, the most important regulation in Indonesia is the Negative Investment List (DNI).[284] This List identifies the sectors in which a limited percentage of foreign ownership is allowed, and is designed to create certainty for both domestic and foreign investors.[285] The investment environment has been loosened in recent years as traditionally closed, sectors like hospital management services, the film industry and logistics have been opened to full foreign ownership by the Indonesian Government.[286] However, some sectors remain closed or open for a limited percentage (i.e. electronic payment services) to foreign ownership. The DNI list makes three distinctions: business fields that are open under certain conditions, business fields that are open with conditions,[287] and business fields that are closed to investment. Examples of business fields that are closed are air navigation services, telecommunication and alcoholic beverages industry. Many agricultural developments such as palm oil, coconut and cashews are reserved for SMEs.[288] The lime and soy sauce industry can only be accessed by means of a partnership with an Indonesian party.

[283] European Commission DG TRADE, Report of the 5th round of negotiations for a Free Trade Agreement between the European Union and Indonesia, accessed on 6 August, 2018 via http://trade.ec.europa.eu/doclib/docs/2018/july/tradoc_157137.pdf and European Commission DG TRADE, Report of the 6th round of negotiations for a Free Trade Agreement between the European Union and Indonesia, accessed on 22 March, 2019 via http://trade.ec.europa.eu/doclib/docs/2018/october/tradoc_157477.pdf

[284] Presidential regulation of the republic of Indonesia number 44, 2016, accessed on 8 August, 2018 via https://www.bkpm.go.id/images/uploads/prosedur_investasi/file_upload/REGULATION-OF-THE-PRESIDENT-OF-THE-REPUBLIC-OF-INDONESIA-NUMBER-44-YEAR-2016.pdf

[285] Ibid.
US Governement, 2018, Indonesia openness to foreign investment, available via https://www.export.gov/article?id=Indonesia-openness-to-foreign-investment

[286] Ibid.

[287] Reserved for or in partnership with SMEs.

[288] However, these industries are also on the list with business fields that are open under conditions like only a certain percentage of the business can be in hands of foreign companies if the plantation is bigger than 25 Ha.

In the past, Indonesia dealt with protection of investments through bilateral investment treaties (BITs). Indonesia has concluded over 70 BITs through the years.[289] In 2014, the Indonesian government announced the wish to terminate and renegotiate all existing BITs, claiming the desire increase policy space in the field of investor-state disputes.[290] Up to date Indonesia has terminated almost all the BITs with EU member states. Only a few EU Member States (Denmark, Czech Republic, Sweden, Finland, Poland and the United Kingdom) do still have a bilateral agreement with Indonesia.[291] It is however the expectation that all these BITs will also be terminated within the coming years.

The investment openness of Indonesia has fluctuated over the last years. According to the OECD FDI restrictiveness index, the score of Indonesia has worsened since 2011. However, looking at the fact that the current president entered office in 2014, the investment climate has improved. President Joko Widodo has stated his intention to deregulate until Indonesia has a good investment climate.[292]

Table 19: Indonesia's OECD FDI Restrictiveness Index 2011-2017 (0=open, 1=closed)[293]

Year	2011	2012	2013	2014	2015	2016	2017
Index	0.312	0.318	0.325	0.339	0.339	0.317	0.317

While the 0.317 on the OECD FDI Restrictiveness Index is already relatively high, on average this is lower than, for example, the Philippines. However, looking at the sectoral divide within the Index, amongst the sectors only manufacturing is relatively open. Looking at sectors like business services, media and the primary sector the restrictions on the DNI list are very present.

Table 20:Indonesia's OECD FDI Restrictiveness Index per Sector 2017 (0=open, 1=closed)[294]

Sector	Primary sector	Manufacturing	Electricity	Distribution	Transport	Media	Telecommunications	Financial services	Business services
Index	0.457	0.065	0.107	0.365	0.426	0.798	0.260	0.200	0.579

The most foreign investments in Indonesia are done in the manufacturing sector. To diversify investments and knowledge transfer the President of Indonesia has stated the wish to deregulate other sectors, without specifying which ones.

[289] UNCTAD, Investment Policy Hub, available at: http://investmentpolicyhub.unctad.org/IIA/CountryBits/97#iiaInnerMenu
[290] Media state that foreign investors used the investor-state dispute settlement mechanism infested within the BITs to bypass local courts and claim compensation through international tribunals. Through this Indonesia has gotten multiple claims https://www.ft.com/content/3755c1b2-b4e2-11e3-af92-00144feabdc0, http://www.gbgindonesia.com/en/main/legal_updates/what_is_going_on_with_indonesia_s_bilateral_investment_treaties.php ,
[291] UNCTAD Investment policy hub, BITs Indonesia, available via http://investmentpolicyhub.unctad.org/IIA/CountryBits/97
[292] Indonesia Investment Coordinating Board, 2017, Opportunities for Foreign Direct Investment in Indonesia, available via https://www.boi.go.th/upload/BKPM_Updated_84830.pdf
[293] OECD (2019), FDI restrictiveness (indicator). doi: 10.1787/c176b7fa-en (Accessed on 29 January 2019)
[294] OECD (2019), FDI restrictiveness (indicator). doi: 10.1787/c176b7fa-en (Accessed on 29 January 2019)

Liberalisation scenario

The investment provisions consist of different aspects: investment liberalisation rules, investment protection rules and a dispute resolution mechanism. As was discussed in the 6th round of negotiations between the EU and Indonesia "key investment liberalisation and investment protection provisions, such as the prohibition of performance requirements, fair and equitable treatment, transfer of funds and indirect expropriation", are expected to be in the eventual FTA.[295]

As it is still unclear what sectors will be liberalised for investment, this section discusses the potential impact of the prospective FTA when certain investment barriers are lifted or reduced based on the above-mentioned FDI restrictiveness index. Investment liberalisation is defined as the changes in market access for foreign investments agreed under the potential FTA. The liberalisation of the DNI list is seen as one of the priorities for the EU by stakeholders.[296] Therefore, the study team expects the partial or whole removal of the industries on the DNI list to be a part of an FTA between the EU and Indonesia. This is supported by the fact that the Indonesian Government has stated before that they plan to further liberalise the list in the future.[297]

Investment protection rules expected to be included for this FTA revolve around the fair and equitable treatment and non-discriminatory measures for all foreign investors in accordance with the international law.[298] This was included in the Investment Protection Agreement between the EU and Singapore, as it also has been discussed in the latest negotiation round between the EU and Indonesia.[299]

It is expected that the Investment Court System (ICS) will be introduced as a dispute resolution mechanism in the investment provisions of the prospective FTA. Although the Indonesian government has expressed its desire to eliminate investor-state dispute settlement (ISDS) mechanisms from future BITs, good progress was made in the sixth round of FTA negotiations, even though the Indonesian side had not yet taken a position on the issue.[300] Furthermore, the EU has committed itself to including ICS in all of its future trade and investment agreements. For these reasons, this chapter explores the potential impacts arising from the inclusion of an ICS in the agreement.[301]

7.1.1. Economic impacts

In terms of economic impact, provision in the field of investment could lead to some increase in GDP growth in the EU, but especially in Indonesia. Where the removal of investment barriers is included in the negotiations, the agreement is

[295] Ibid.
[296] Indonesia-EU Business inputs towards comprehensive economic partnership agreement, KADIN-APINDO and Eurocham Indonesia
[297] Reuters,2018, Indonesia's haphazard rules keep foreign investors away -investment chief, available via https://www.reuters.com/article/indonesia-economy-regulations/indonesias-haphazard-rules-keep-foreign-investors-away-investment-chief-idUSL4N1PS35H
[298] Crawford, JA and Kotschwar, B., 2018, Investment provisions in preferential trade agreements; evolution and current trends, World Trade Organization, Staff Working Paper ERSD-2018-14, available via https://www.wto.org/english/res_e/reser_e/ersd201814_e.pdf
[299] European Commission, Chapter Two Investment Protection of the Investment Protection Agreement between the EU and Singapore, available via http://trade.ec.europa.eu/doclib/docs/2018/april/tradoc_156741.pdf
[300] European Commission DG TRADE, Report of the 6th round of negotiations for a Free Trade Agreement between the European Union and Indonesia, accessed on 22 March, 2019 via http://trade.ec.europa.eu/doclib/docs/2018/october/tradoc_157477.pdf
[301] European Commission DG TRADE, Report of the 5th round of negotiations for a Free Trade Agreement between the European Union and Indonesia, accessed on 6 August, 2018 via http://trade.ec.europa.eu/doclib/docs/2018/july/tradoc_157137.pdf

likely to increase the existing trends in bilateral trade. Several industries such as telecommunication, air navigation systems and the alcoholic beverages industry in Indonesia could potentially profit from more expertise and more investments from the EU if these sectors would open. A more open foreign-ownership regime could potentially attract more foreign investors, which would likely lead to more national growth, competition and product quality.[302]

In 2017, the total EU outward foreign direct investment was 408.835 million USD, while the outward FDI of Indonesia totalled €2.26 million.[303] Conversely, the inward foreign direct investment of the EU in 2017 was €259.5 million against €18.6 million for Indonesia. The notable difference in scale of both inward and outward FDI between the EU and Indonesia highlights the potentially smaller impacts that will be likely to emerge in the EU as a result of greater increases in Indonesian FDI arising from the agreement. As such, it is envisaged that provisions within the agreement that stimulate growth in bilateral flows of FDI would be more likely engender economic impacts through increased EU investment in Indonesia. However, as increased investments are more likely to occur in the fields where bilateral trade and investment is already highest, diversification of investment may be less likely. To this end, it is expected that increased investment from the EU would most likely be directed towards the Indonesian industries of greater relevance to its imports as well as those sectors that become more intensely involved in EU global production chains. Currently, the largest value of imported goods from Indonesia to the EU is in animal and vegetable oils or fats (namely palm oil), machinery and appliances and pieces of clothing.[304] With respect to the latter, the modelling results have suggested that there is scope for greater integration of Indonesia into the EU's textile, garments and footwear industry. The investment provisions could also benefit multinational companies in stimulating capital flows and trade in goods.

The investment provisions in the prospective FTA focusing on investment protection are expected to have a positive impact on bilateral investments. The increased security for foreign investors would increase trust amongst the investors, likely leading to increased investments. The economic impact of the third factor within the investment provisions, the introduction of an ICS, remains relatively unclear. At present, all new generation FTAs or IPAs concluded by the EU that include ICS have not yet been ratified, limiting empirical data of its impacts in practice. Nevertheless, studies have pointed out that the "old-style" ISDS mechanism in BITs has attracted more foreign investment in the past.[305] As it is an enforcement system, it could add to some economic gains, but the added value in the sense of creating a sustainable agreement is disputed by some stakeholders.[306] Investor-state dispute settlement mechanisms are important for encouraging investments as they, again, create an environment of trust for the investors.

Overall, it is projected that the investment provisions are likely to have a positive economic impact on both the EU and Indonesia by reinforcing bilateral trade, increasing protection for investors and promoting additional investments in Indonesia.

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[302] Ibid.
[303] OECD, 2018, EU and Indonesia FDI Flows, https://data.oecd.org/fdi/fdi-flows.htm
[304] European Commission DG TRADE, 2018, European Union, Trade in goods with Indonesia, available via http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113391.pdf
[305] Frenkel and Walter (December, 2017) Do Bilateral Investment Treaties Attract Foreign Direct Investment? The Role of International Dispute Settlement Provisions, Working Paper Otto Beisheim School of Management.
[306] European Parliamentary Research Service, 2017, From arbitration to the investment court system (ICS), available via http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/607251/EPRS_IDA(2017)607251_EN.pdf

7.1.2. Social impacts

The social impacts from investment provisions would likely comprise both positive and negative effects in Indonesia. As noted above, it is not expected that it will produce significant social impacts in the EU on account of the relative size of the EU economy and the limited expected role of Indonesia as a source of inward FDI to the EU over the timeline of analysis in this study (2032).

In the case of Indonesia, increased EU investment in the country would likely stimulate a growth in employment.[307] Further, if investments were properly channelled and combined with goals on social sustainability, they could have a positive effect on wage inequality and the quality of work. Such an outcome, however, would depend on the extent to which Indonesia is willing to liberalise restrictions in their services sector for investment from the EU within the FTA. If, for instance, Indonesia would open their higher education system for investments from foreign companies or institutions, the transfer of knowledge and technologies that come with it could be beneficial as it could increase Indonesia's capacity for further competition.[308]

The inclusion of the increased investor protection will result in positive effects for companies operating in Indonesia. Introducing the ICS as dispute settlement mechanism in the prospective FTA has some positive effects, because of the increased transparency in the process of protecting foreign investors. However, some civil society organisations have expressed concerns that the inclusion of an investor-state dispute system could potentially hamper governments' ability to adopt regulations with social objectives and to provide affordable public services.

While it is true that there are cases where investors have been able to take advantage of strong investor-state dispute mechanisms by using the power imbalance between a corporation with considerable financial clout and a developing state with less financial means available and a strong need for foreign investments, a more transparent and rule-based investment dispute mechanism can be beneficial to both the EU investors and the Indonesian Government.

The Investment chapter that the EU has included in its latest FTAs includes provisions that aim to limit investors' ability to sue the governments just because their profits have been reduced. It reaffirms the right of the Parties to regulate when pursuing legitimate public policy objectives and adds a layer of transparency by making the documents of the settlement available to the public, allowing access to hearings as well as allowing interested parties (e.g. NGOs) to make submissions. Furthermore, should the investors bring frivolous or unfounded cases, they will also bear the costs of litigation, reducing thus states' litigation costs.[309] This is important to developing countries like Indonesia, who might otherwise struggle with substantial litigation costs.

The EU has also responded to civil society's concerns about the loopholes the investors have been able to use like ambiguities in defining 'indirect expropriation". It has also been affirmed that "*when the state is protecting the public interest in a non-discriminatory way, the right of the state to regulate should prevail over the*

[307] Ibid.
[308] Indonesia-EU Business inputs towards comprehensive economic partnership agreement, KADIN-APINDO and Eurocham Indonesia
[309] See European Commission, "Investment Protection and Investor-to-State Dispute Settlement in EU agreements", 2013, available at: http://trade.ec.europa.eu/doclib/docs/2013/november/tradoc_151916.pdf

economic impact of those measures on the investor"[310] This would allow the Indonesian government to successfully defend its policies, that are aimed at improving the lives of its people as well as protecting vulnerable groups, insofar as such measures are adopted and implemented in a non-discriminatory manner.

The ICS as well as the revised investment protection standards proposed in the new EU trade and investment agreements have not been fully tested. However, what is overall positive, is that the new system brings about more transparency and guidance to adjudicators, and that the civil society will also have a voice in the new ICS proceedings.

7.1.3. Human rights and environmental impacts

Overall, the investment provisions are expected to have limited direct impact on human rights or the environment. Nevertheless, stakeholders have stressed that provisions on investments could indirectly lead to potential risks to human rights and the environment, mainly through the same process as described above in the social assessment. [311] More transparency in domestic decision-making procedures in Indonesia could assist in limiting these risks. Most business associations expect the future investment provisions to have an overall positive impact, however some stakeholders remain concerned. Under the ICS proposed by the EU, the Parties' right to regulate would be safeguarded and changes in policy would not lead to risks of getting sued. However, if investor protection rules are breached for the purpose of human rights or environmental protection, some stakeholders still feel that the ICS might not offer enough reassurances that this would not lead to investors successfully suing the Indonesian government, potentially at the cost of the livelihood of local communities and the environment.

Considering the fears summarized above, some stakeholders state that they would like to see a supremacy clause or horizontal exceptions in the investment provisions which would support the right to regulate clause in the potential ICS provisions. Horizontal exceptions like human rights measures to counter abuse or environmental measures[312] that may conflict with stakeholder protection, are fields that stakeholders hope will be addressed in the investment agreement. At the same time, it is deemed overall positive, that the reformed investor-state dispute mechanism in recent EU trade and investment agreements gives more voice to the concerned parties, allowing thus the adjudicators to consider facts from all sides.

Other possible environmental effects that could arise from the prospective FTA largely depend on which investment restrictions for foreign investors will be liberalised and how investment dispute settlement will be formalised within the agreement. The possible increase in investments in land-use intensive industries (such as the oil sector) and greenhouse gas intensive industries (such as mining) could lead to negative impacts for the environment if no provisions to counter such outcome are included in the prospective FTA. On the other hand, if the restrictions on the renewable energy industry and green technology are partially lifted or fully lifted, the agreement could promote positive effects through dissemination of knowledge and upgrading to Indonesia's green technology sector and green development.

[310] Ibid
[311] SOMO, The EU – Indonesia CEPA negotiations, February 2018, available at: https://www.somo.nl/wp-content/uploads/2018/02/The-EU-Indonesia-CEPA-negotiations.pdf
[312] For example carbon taxes or increased standards for permits to coal, oil and gas investments.

7.2. Public Procurement

Summary

With respect to the EU-Indonesia FTA's chapter on procurement, the following assessment asserts that the agreement is likely to have a limited impact across all four pillars of sustainability. This conclusion is derived largely from the determination that the size of the procurement market that will become accessible to EU providers will likely remain small over the timeline analysed (to the year 2040) as well as expectations that Indonesia will not emerge as a major competitor in the EU procurement market.

According to the most reliable statistics available, the overall size of the procurement market in Indonesia remains small, while most procurements fall below thresholds that would conceivably be reached within the agreement. While the size of the market is likely to grow in the coming years, its expansion is limited by the scale of Indonesian public expenditures which have consistently remained around 20 per cent of GDP over the past several decades. Together with the fact that most covered procurements will likely continue to be provided by domestic firms following the expiration of transitional periods, it is determined that the overall impact for the EU would likely be limited in monetary terms. While gains arising from increased market access may produce positive social gains in terms of employment and wealth (and thus to the right to an adequate standard of living), these too are expected to be minor. No environmental impacts are expected to arise for the EU given the fact that it already maintains a highly liberalised and competitive procurement market and since it is not envisaged that Indonesia will emerge as a competitor over the timeline assessed.

While Indonesian providers may see some reductions in domestic market share through increased competition with EU providers, it is again estimated that these would be limited. Countering any losses would likely be the gains derived from improved efficiency and potential reductions in corruption in the procurement process. While some restrictions may be placed on Indonesia's ability to use its procurement process toward domestic policy objectives, it is expected that many such tenders would likely fall below thresholds established under the agreement and, thus, continue to be free to be used towards such ends. To the extent that subnational jurisdictions are excluded from the agreement – particularly poorer, rural and less economically developed regions – it is not expected that policy space would be significantly impacted. While increased competition from the EU may increase the supply of available green procurements, the overall environmental impact is expected to be minor.

Baseline and liberalisation scenarios

As the study's quantitative model does not account for possible liberalisation of public procurement under the EU-Indonesia FTA, the assessment within this section requires the formulation of scenarios relevant to the baseline as well as to the potential outcome of the agreement's chapter on procurement.

The **baseline scenario** assumes that Indonesia will not make any parallel international commitments towards liberalisation of its public procurement market (including accession to the WTO's Agreement on Government Procurement). It will assume, therefore, that in the absence of an EU-Indonesia FTA, the Indonesian market would remain relatively restricted to direct foreign involvement, with the status quo of current thresholds for foreign procurements and requirements for

forming partnerships with local suppliers remaining in place.[313] Further, it assumes that the Indonesian government would continue to exert preference for local content and suppliers in its procurements. As the Indonesian government remains in the process of reforming its public procurement system, the baseline will further assume that advances will be made in its e-procurement system, with national and subnational procurements increasingly being published through its electronic portal, and that further improvements to transparency and efficiency will be achieved. With respect to market size, the baseline also assumes that there will be growth in the public procurement market over the next 25 years, with increasing funds being devoted to infrastructure development in line with national development objectives. To this end, it utilises projections from the OECD to estimate the potential size of the Indonesian economy in 2040. With respect to the size of the procurement market, it further assumes that procurements will account for 10 per cent of Indonesia's GDP by 2040.[314] For the EU, the baseline follows the scenario used in formal quantitative modelling and assumes full implementation of all relevant EU agreements – EU-Vietnam, EU-Singapore, EU-Korea, EU-Japan and CETA – and of the relevant market access commitments provided therein.

The **liberalisation scenarios** used in this assessment are structured around several substantive areas, rather than comprising separate full potential outcomes. The scenarios thus explore the potential impact from the agreement's chapter on procurement across various dimensions relevant to the following substantive areas.

1. **Rules and procedural provisions**. The potential impact associated with a chapter that commits Indonesia to bilateral adoption of various articles included under the WTO Agreement on Government Procurement (the GPA). This includes: (i) affording national treatment and non-discrimination to EU and Indonesian providers under the goods and services and contract authorities covered by the agreement; (ii) increased standards for transparency; (iii) provisions related to the types of tendering, tendering rules, submission and selection procedures and documentation requirements thereto; technical cooperation; and due process and dispute settlement.

2. **Market access provisions**, pertaining to:

(a) Coverage of government entities. This relates to the extent to which the chapter on public procurement includes coverage of entities classified as Type I (central government), Type II (sub-central government) and Type III (parastatal companies or companies subject to government influence).

(b) Coverage of goods and services (including construction). Taking into account the potential entities that may be covered under the chapter on procurement, the analysis will further explore the potential impacts arising from the extent to which various goods and services may be subject to liberalisation.

(c) Value-thresholds. Further taking into account the entities, goods and services that are covered, the assessment will explore the potential impacts that may arise under the ultimate value thresholds that are established – that is, the values at which foreign firms are afforded access established under provisions of the agreement with respect to rules and (b) and (c) above. This will largely not be directed towards the values that may be established during the transitional periods, per se, but rather to the final values agreed to after this period (avoiding consideration of future *ex post* negotiations that may revise these thresholds).

[313] Note: as Presidential Regulation 16 of 2018 recently raised these thresholds, there remains the possibility that this assumption does not hold and that the Government of Indonesia may again raise thresholds at some point over the time horizon assessed in this study.
[314] The rationale for this assumption is explained in subsequent sections and is based on current data related to public procurement and overall public expenditures in Indonesia

All scenarios include the assumption of lengthy transitional periods that would permit time for the Indonesian government to adjust to opening its procurement market to EU providers. This may surpass the quantitative modelling baseline of 2032 –on account of Indonesia's (i) federal structure; (ii) lack of exposure to foreign competition in procurements; and (iii) the relative under-development of the sector. As such, the time horizon considered in this assessment will extend to 2040. The assessment will primarily consider outcomes that may arise once the agreement's full commitments take effect and the transitional period has passed.

7.2.1. Overview

Rationale for liberalising public procurement markets

The arguments in favour of liberalising public procurement within international agreements consist of several elements. Public procurement can represent a significant portion of a country's GDP and public expenditures, making access to these markets of commercial interest to foreign firms that may be otherwise blocked from meaningful participation in these lucrative markets – either by *de jure* prohibition on foreign participation or through discriminatory practices that keep foreign providers from competing on a level playing field. By increasing transparency and establishing a clear set of rules and procedures, public procurement provisions within international agreements may allow foreign firms to more easily participate while reducing the legal uncertainty associated with the provision of such goods and services. Importantly, liberalisation can moreover place limitations on a country's ability to use its procurement system as a means for enacting hidden barriers to foreign trade and investment.

For a country considering liberalisation of its procurement market, potential benefits include increases in the number of potential suppliers, enhanced competition, expansion of the pool of goods and services available and lower prices. In principle, the improved value-for-price position for government as a consumer of goods and services equates to an essential expansion of real income (i.e. government revenues) by providing it with cost savings that would not have been possible without the improvements to the competitive environment. This, in theory, can provide governments with more resources that can be devoted toward public goods such as health and education, benefitting citizens who are able to receive more amenities from fees and taxes remitted to the government. Further, by establishing a clearer and more robust rule-based system of procurement, liberalisation can increase transparency, making it not only easier for firms to participate in the tendering process, but also placing restrictions on government agents' ability to engage in corrupt practices through procurement.

In contrast, concerns over liberalisation of a country's public procurement market largely relate to fears that it will lead to a reduction in policy space.[315] Procurement remains a widely-used tool by many countries for promoting domestic economic, social and environmental objectives. This strategy may be particularly attractive (i) to countries during recessionary periods, with preferences for local content and providers being used as a tool for stimulating domestic demand; and (ii) for ensuring greater economic inclusion of local firms, industries, and social groups. As such, arguments against liberalisation may contend that an FTA's chapter on

[315] See, e.g., Woolcock (2012) for a discussion of various governments' concerns over a loss of policy space related to liberalisation of public procurement in international agreements. Woolcock, Stephen, 2012, "Public Procurement in International Trade", Directorate-General for External Policies of the Union, retrieved 14 October 2018 via: http://www.europarl.europa.eu/RegData/etudes/etudes/join/2012/457123/EXPO-INTA_ET(2012)457123_EN.pdf

procurement may place restrictions on the government's ability to enact policies that promote such ends.

Indonesia's public procurement system

Indonesia is not a signatory of the WTO's GPA and although it has included provisions on public procurement in several of its trade agreements, these are limited to minor commitments related to improving procedures and regulations.[316] As Indonesia has not yet included commitments on market access or national treatment within its international agreements, any such provisions arising from the EU-Indonesia FTA would mark the first time it has afforded meaningful foreign access to its domestic procurement market. The following section highlights the current system of public procurement operating in Indonesia in order to provide greater context to the ultimate changes that may arise from the agreement.

Together with the assistance of donor agencies, the Government of Indonesia (GoI) has undertaken several steps to reform its public procurement system. Beginning in 2003, Presidential Regulation No. 80 of 2003 established regulations for procurement that called for the development of a system built on the principles of transparency, openness, competition, efficiency, effectiveness, non-discrimination and accountability. This regulation has since been amended – notably by *Presidential Regulation No. 54 of 2010 on the Procurement of Goods and Services (PR 54)*, which on 22 March 2018 was replaced by *Presidential Regulation No. 16 of 2018* (discussed below). To further assist in the reform of its procurement system, in 2007 the Government of Indonesia established the Public Procurement of Goods and Services Agency of Indonesia (LKPP – *Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah*), which was given authority to create rules and monitor compliance of the country's procurement system. To further promote transparency in the procurement process, in 2008 Indonesia introduced its electronic procurement system, which government actors are required to use for all tenders above a certain threshold [IDR 200 million (€11,375)].

As noted, public procurement in Indonesia is currently regulated by:

(i) *Presidential Regulation No. 16 of 2018 on the Procurement of Goods and Services (PR 16)*, which recently replaced Presidential Regulation No. 54 of 2010, and relates to normative provisions. The regulation applies to all goods and services (including construction projects)[317] procured by the public sector using state or regional budgets; domestic loans or grants; or foreign loans or grants.

(ii) the Head of Agency for Government Procurement of Goods or Services *Regulation No. 14 of 2012 on Technical Guidance for PR 54/2010* (which will be replaced by new provisions for guidance on the newly released *PR 16*), which relates to implementing procedures.

As articulated in Articles 4 through 6, the principles of *PR 16* include promoting value for money in public procurement; improving the quality of goods and services procured; fostering transparency, openness, competition, fairness and accountability in the procurement process; and strengthening institutional capacity. In addition, Articles 4 and 5 make clear that the GoI seeks to use procurement to promote domestic policy objectives by calling for procurements to: (i) provide preferences to domestic goods and services as well as micro-, small- and medium sized entities (MSMEs); (ii) support the growth of Indonesian companies; (iii)

[316] Rules on procurement within APEC are non-binding, while commitments with ASEAN have been limited.

[317] Under PR 16, construction services are defined as including activities related to establishment, operation, maintenance, demolition and reestablishment of buildings and other structures.

support R&D and promote innovation; and (iv) encourage economic equality and sustainability.

PR 16 provides for several third-party procurement types in addition to open tendering, including e-purchasing (for all goods listed in the electronic catalogue), direct procurement (for all goods and services less than IDR 200 million), direct appointment and express tenders. The open tendering procedure – which Article 38 states shall be used for goods or services that cannot be procured through these alternative methods – consists of the following procedure: qualification, announcement and/or invitation; registration and collection of selection documents (*dokuman pemilihan*); explanation (*aanwijzing*); submission of bid documents; evaluation of bid documents; determination and announcement of the tender winner; and objections. Tender participants are required to meet the qualifications established, with these varying by type of procurement and procuring agency.

Under PR 16, the government distinguishes between five types of goods and services. These include: (i) goods; (ii) construction services; (iii) consultancy services; (iv) other services ("services"); and (v) self-management (*swakelola*).[318] In general, procurements for goods and services may become subject to open tendering when the value of the contract exceeds IDR 200 million (€11,375), with the exception of consultancy services [which may be subject to an open tender for values in excess of IDR 100 million (€5,866)] and self-management (which operates according to a different set of tendering procedures). However, since PR 16 explicitly states that open tendering shall be used only when a procurement cannot be undertaken through alternative methods, questions arise as to the extent to which procurements exceeding IDR 200 million are subject to open bidding procedures.

In exploring this question, **Table 21** provides data on 2016 public procurements published by Indonesia's Evaluation and Monitoring Committee for Budget Realisation (TEPRA). As shown, although open bidding is the least often used form in Indonesia's procurement system (4.3 per cent of all procurements published in 2016), it accounts for nearly half of the total value of all public procurements. This suggests that the Indonesian government subjects nearly all the largest value procurements to an open tendering process and that alternative methods are largely used for lower value procurements.

To this end, the data further show that the various methods of procurement had the following average values in 2016:

- direct procurement and e-purchasing – IDR 245.6 million
- direct appointment – IDR 261.4 million
- self-management – IDR 185.4 million
- open tendering – IDR 4,634.6 million

As these values for non-open tenders are generally in line with the standard threshold for triggering the use of open tendering (IDR 200 million), it further suggests that procurements that can legally qualify for open tendering are generally subjected to this method (with those that are not likely failing to exceed this threshold by a substantial amount). When observing the average values for the specific type of good and service procured, it appears that procurements in excess of IDR 200 million that are not subjected to open tendering are most likely to occur among construction services (though the largest value construction projects would likely remain subject to open tendering).

[318] Self-management (*swakelola*) refers to the process of procuring goods and services through contracting of individual external experts

Table 21: Indonesian Public Procurements by Method and Type 2016

	Open tendering		Direct procurement & e-purchasing		Direct Appointment		Self-management	
	No.	Value (bil. IDR)	No.	Value (bil. IDR)	No.	Value (bil. IDR)	No.	Value (bil. IDR)
Goods	10,380	41,129.73	264,429	53,194.22	32,630	8,297.37		
Construction	30,467	197,499.09	157,167	67,895.83	20,453	6,252.18		
Consulting	16,453	15,304.65	77,227	5,272.55	11,469	457.24		
Other services	5,139	35,447.63	75,999	14,812.17	13,829	5,479.66		
Total	62,439	289,381.2	574,820	141,174.8	78,381	20,486.45	732,362	135,754.65

Source: TEPRA 2016 National Report

While these data suggest that much of Indonesia's procurement market is subject to some degree of open tendering, it nevertheless remains mostly closed to foreign participation. Article 63 of *PR 16* outlines the procedures governing international tendering,[319] with **Table 22** listing the circumstances under which foreign participation is permitted.

Table 22: Thresholds for Foreign Participants in Indonesian Public Procurements

Procurement type	Threshold for foreign participation under PR 16	Former threshold under PR 54
Construction services	> IDR 1 trillion (SDR 49 mil)	> IDR 100 billion
Consultancy services	> IDR 25 billion (SDR 1.2 mil)	> IDR 10 billion
Goods and all other services	> IDR 50 billion (SDR 2.4 mil)	> IDR 20 billion
Goods and services financed through export credit insurance institutions (*Penjamin Kredit Ekspor*) or foreign private creditors (*Kreditor Swasta Asing*)	N/A	N/A

Source: Presidential Regulation 16/2018 and Presidential Regulation 54/2010

** Note: foreign participation may be allowed at values below these stated thresholds in instances where no domestic provider can provide the procurement.*

It is noteworthy that the recently issued *PR 16* has significantly increased these thresholds, portending a movement by Indonesia to make its procurement market less open to foreign participation. These thresholds are, moreover, well above those generally found in the Annexes to the WTO's GPA, where thresholds range from 5 million to 15 million Special Drawing Rights (SDR) for construction services (approximately IDR 98.4 billion to IDR 285.18 billion) and SDR 130,000 to SDR 400,000 for goods and other services (approximately IDR 2.56 billion to IDR 7.87 billion). As listed in parentheses in the second column of **Table 22**, these thresholds of, respectively, SDR 49 million and SDR 2.4 million (1.2 million for consulting services) make foreign access to public procurement significantly more restricted than observed among countries that have acceded to the GPA.

While there is limited data on the number of procurements that actually exceed these thresholds, data on Indonesia procurements from 2016 (**Table 21**Error! Reference source not found.) show that the average value of procurements offered through open tendering fall well below the thresholds listed in **Table 22**. Specifically, the average values of openly tendered procurements in 2016 were as follows:

- Goods – IDR 3.96 billion (approx. SDR 201,200)
- Construction services – IDR 6.48 billion (approx. SDR 329,300)
- Consultancy services – IDR 0.93 billion (approx. SDR 47,260)
- Other services – IDR 6.90 billion (approx. SDR 350,640)

These data suggest three relevant points. First, most procurements in Indonesia are not open to foreign participation under current thresholds. Second, a significant portion of procurements in goods and other services could potentially be subject to foreign participation under an FTA that set thresholds in ranges found in the GPA. Third, the majority of construction tenders would likely not qualify for foreign participation under even the lowest GPA thresholds.

[319] PR 16 defines an "international tender" as any tender that procures goods or services from a foreign business

Data on Indonesia's procurements in 2017 that provide information on the number of bids according to value categories support these assertions (**Table 23**). For example, in 2017:

- 73 per cent of the value of Indonesia's total procurement of **goods** was near or exceeding the lowest relevant SDR found in the GPA
- 33 per cent of the value of Indonesia's total procurement of **consultancy services** was near or exceeding the lowest relevant SDR found in the GPA
- 56 per cent of the value Indonesia's total procurement of "**other services**" was near or exceeding the lowest relevant SDR found in the GPA

Approximately 23 per cent of the value of Indonesia's total procurement of **construction services** exceeded the lowest GPA threshold of SDR 5 million (approx. IDR 98 billion)**.**

Table 23 Public Procurement in Indonesia Exceeding Lowest GPA Values in 2017

Procurement type	Total value of procurements exceeding thresholds (IDR billion)	Share of total procurement
Goods	166,526.23	73.06%
Construction services	81,698.23	22.97%
Consultancy services	7,901.20	33.13%
Other services	23,484.37	56.33%
Total	279,610.03	30.77%

Source: TEPRA 2017 National Report

With respect to the prospects for EU access under Indonesia's current thresholds for foreign participation, **Table 23** shows that, cumulatively, only 31 per cent of the total value of Indonesia's procurements in 2017 met or exceeded the *lowest possible thresholds* found in the GPA. Thus, while the existence of thresholds significantly higher than those observed in the GPA place notable limitations on foreign firms' potential involvement in Indonesia's procurement market, it appears likely that the majority of procurements would nevertheless remain closed to foreign competition even under an ambitious degree of liberalisation.

It is further noteworthy that in instances where a bid surpasses the threshold for foreign participation and is also subject to open tendering, PR 16 continues to require that an interested foreign provider cooperate with a local firm – in the form of a consortium, subcontracting or other arrangement. However, even under such an arrangement, there are limited assurances that a foreign firm will be free from non-discrimination vis-à-vis a wholly domestic competitor.

To this end, while the GoI does not generally impose offset requirements for procurement (except for defence), it actively encourages domestic sourcing and support of local firms within its procurement guidelines. Hereto, Chapter IX of *PR 16* outlines issues related to MSMEs, domestic products and sustainable procurement. Notable provisions include:

- Article 65 (preferences for MSMEs) – explicitly calls for procurements to be drafted by competent authorities that provide opportunities for MSMEs, with tenders less than IDR 2.5 billion being exclusively reserved for such enterprises unless not feasible.
- Article 66 and 67 (preferences for domestic products) – makes locally produced goods and services (including designs) mandatory for use in procurements from all relevant ministries, institutions and regional

governments. Here, local goods or services are determined to be those where at least 40 per cent of the total value is comprised of local components or inputs. Foreign goods and services are permitted in instances where the item cannot be procured domestically, and/or domestic production volume is not capable of meeting necessary demand.

As a means of improving transparency and fairness, the government provides rules governing the criteria that can be used in awarding tenders and the instances where these are permitted. Under *PR 16*, procurement of goods, construction services and other services may be awarded according to the criteria of (i) lowest price (*harga terendah*); (ii) total score (*sistem nilai*);[320] or (iii) life cycle cost assessment (*sistem penilaian biaya selama umur ekomonis*).[321] Importantly, as stipulated in Article 67, when a procurement meets the criteria (i.e. threshold) for allowing international procurements, the "lowest price" criterion for awarding the tender can only be used for procurements of goods and services (non-construction) in instances where at least 25 per cent of the value is comprised of local content. For construction services that qualify for international tenders and employ the price criterion, a domestic firm will be viewed as having offered the lowest price when its bid exceeds the lowest qualified bid from a foreign firm by less than or equal to 7.5 per cent.

Overall then, foreign firms wishing to compete in Indonesia's procurement market not only face notable restrictions with respect to market access but remain subject to competitive disadvantages even when allowed to bid. While stipulations related to qualitative criteria are less clear, the "total score" criterion for awarding bids would appear to further favour domestic providers by permitting points to be awarded according to elements such as local content.

With respect to challenge procedures, *PR 16* provides that unsuccessful bidders will be granted a period to dispute award decisions. In this regard, rules stipulate that the appellant must submit a challenge of 1 per cent of the government price estimate for the procurement with the appeal. If the appeal is rejected, the bidder may also challenge the decision through (i) the Supervisory Commission on Business Competition (KPPU - *Komisi Pengawas Persaingan Usaha*), which is responsible for supervising enforcement of the country's Anti-Monopoly Law; or (ii) the relevant Administrative Court (*Pengadilan Tata Usaha Negara*).

Finally, of additional relevance to issues of sustainability, Article 68 of *PR 16* highlights objectives by the GoI to promote principles of sustainable procurement. Specifically, it requires that the procurement of goods and services be carried out with attention to sustainability. This is defined across economic (costs and life cycle), social (empowerment of MSMEs and local communities, fostering of fair working conditions, and promotion of equality and diversity), and environmental (reducing the negative impact on health, air, water and soil quality, and sustainable use of resources) criteria.

Indonesia's public procurement market

While the study team has made every effort to acquire data on Indonesia's public procurement market, reliable and detailed information related to procurements is notoriously difficult to locate – both for Indonesia and other countries – making estimates of its size subject to wide degrees of uncertainty. The most reliable data available is reported by Indonesia's Evaluation and Monitoring Committee for Budget Realisation (TEPRA), which is reproduced in **Table 21**Error! Reference

[320] This scoring criterion is most often used for tenders that have higher technical requirements
[321] This system is different for tenders related to consultancy services, where procurements may be awarded based on either quality, quality and cost, budget-ceilings, or lowest cost.

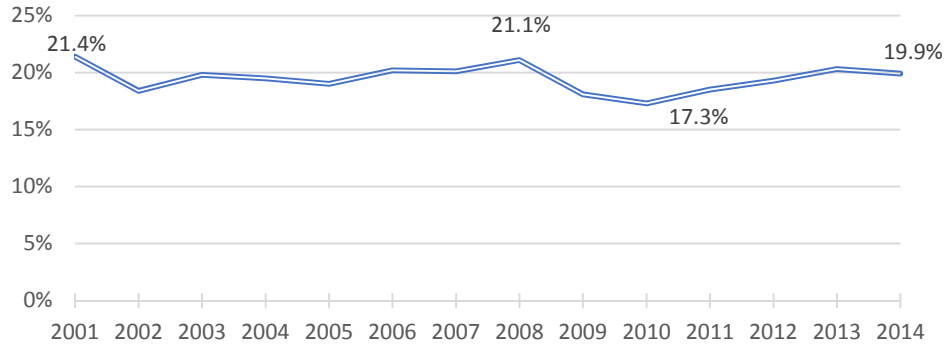
source not found. and **Table 23** for the years 2016 and 2017, respectively (with additional data for 2015 available on its website).[322] As reported by TEPRA, the total value of all procurements for the years 2015-2017 are as follows:

- 2015: IDR 580,851.40 billion (€34.08 billion)
- 2016: IDR 586,797.07 billion (€34.42 billion)
- 2017: IDR 908,747.83 billion (€53.32 billion)

Based on estimates of GDP provided by the Government of Indonesia, these reported expenditures on public procurements would have equated to approximately 6.7 per cent of GDP in 2017. While the exact extent to which these figures properly reflect all procurements cannot be determined (particularly those at the subnational level), the size of Indonesia's procurement market should be viewed as small relative to OECD countries. Such an assertion is supported by data on Indonesia's total public expenditures, which are far smaller than averages observed among OECD members.

Through its Open Budget Portal, the World Bank provides detailed data on Indonesia's public expenditures across all levels of government over the period 2001 to 2014. As shown in **Figure 2**, total government expenditures (including subsidies and transfers) remained consistently around 20 per cent over this period, averaging only 19.5 per cent of annual GDP and ranging from 17.3 per cent to 21.4 per cent.[323]

Figure 2: Indonesia Total Government Expenditure (as percentage of GDP), 2001-2014[324]



Source: World Bank Consolidated Fiscal dataset (COFIS).

As highlighted by **Figure 2** total government expenditures in Indonesia are well below averages observed among OECD countries. Among 32 countries for which both public procurement and public expenditure data were available in 2015, public expenditures as a percentage of GDP averaged 44.2 per cent, ranging from a high of 57.1 per cent to a low of 28.8 per cent. In turn, these countries devoted an average of 13.3 per cent of GDP towards public procurements, ranging from 20.2 per cent to 7.3 per cent.

If the TEPRA figures are correct, this would imply that Indonesia's procurement market – 6.7 per cent of GDP in 2017 – is far smaller than those observed in other countries. However, given the smaller share of public expenditures relative to GDP, this is to be expected. Indeed, as shown in **Figure 3**, the share of public

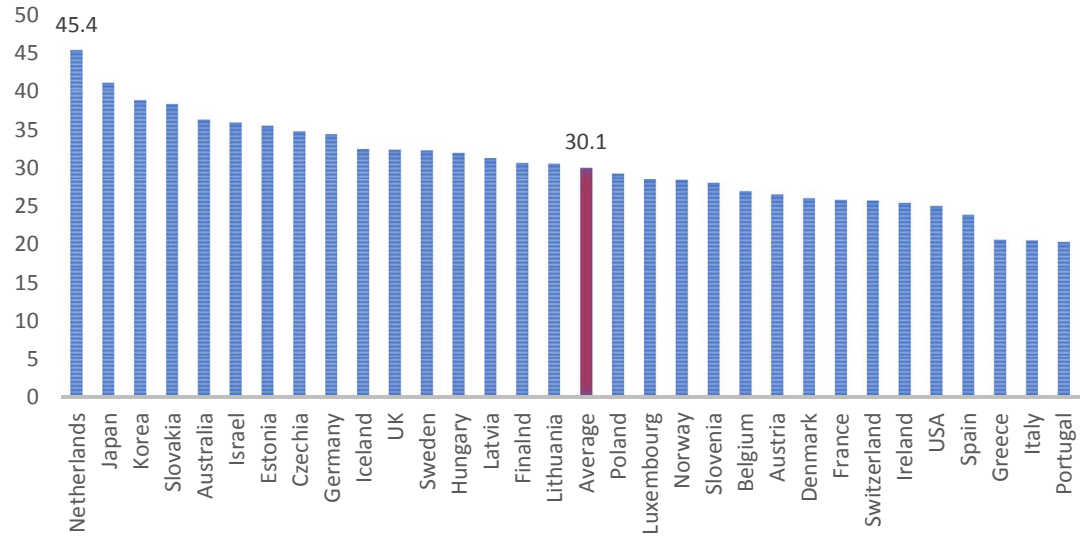
[322] TEPRA, 2018, "Laporan Nasional", retrieved 25 August 2018 via: http://monev.lkpp.go.id/
[323] World Bank, Indonesia Consolidated Fiscal dataset (COFIS), retrieved 25 October 2018 via: http://boost.worldbank.org/country/indonesia
[324] For all central, provincial and district government expenditures, including subsidies and interest payments.

expenditures realised through procurement is below 50 per cent among all OECD countries and averages approximately 30 per cent. Based on the TEPRA data, Indonesia's average would equate to roughly 33 per cent, placing it on par with the practices of other nations. As such, it should be inferred that the 6.7 per cent of GDP figure for Indonesia's procurement market is relatively accurate, particularly considering the low rate of public expenditures observed in Indonesia.

Figure 3: OECD Countries' total Public Expenditures and Procurement Expenditures (as a percentage of GDP), 2015

Source: OECD

Figure 4: OECD Countries' Share of Public Expenditures Directed Towards Procurements (%), 2015



Source: OECD, study team's calculations

Concluding then that Indonesia's current public procurement market is relatively small compared to other countries, the next relevant line of inquiry pertains to the extent with which this market would be potentially open to EU firms under the context of the FTA. As highlighted in the previous section, however, most current procurements in Indonesia appear to fall below thresholds that would reasonably be established under the agreement – even when assuming that the agreement could achieve commitments from Indonesia to apply thresholds in line with those observed in the Annexes to the GPA. Again, according to data from TEPRA, the following value of procurements appeared to fall within potential thresholds that could be attained under an ambitious outcome that saw all levels of government and all goods and services liberalised at levels in line with the lower thresholds found in the GPA:

- Goods – 73 per cent of the value of all goods procured
- Construction services – 23 per cent of the value of all construction services procured
- Consultancy services – 33 per cent of the value of all consultancy services procured
- Other services – 56 per cent of the value of all other services procured

Cumulatively, this would represent a total value of IDR 273,997.3 billion (€16.1 billion), which accounts for roughly 30 per cent of Indonesia's 2017 procurement market as reported by TEPRA.[325] This would appear to be a 'best-case' scenario of a potential current market for foreign providers of procurements in Indonesia as it assumes an EU-Indonesia FTA that adheres to the lowest thresholds observed in the GPA and coverage of all goods and services and levels of government.[326] As this

[325] This again is reflected in the fact that roughly half of the value of all procurements fall under "self-management" procurements which are not classified as either goods or services

[326] While the figures from TEPRA provide some useful insight into the size of bids and methods of procurement, they do not distinguish between procurements from central and subcentral entities and between those awarded to foreign and domestic providers. As noted above, Indonesia's process of administrative and fiscal decentralisation has made it one of the largest federal states in the world. This process of decentralisation has made subnational governments responsible for a number of expenditure responsibilities that would potentially be subject to the procurement process, including: health, education and infrastructure. As such, it should be expected that a significant portion of procurements similarly qualify as falling under the mandate of subnational jurisdictions.

is rather ambitious – particularly given that Indonesia has not yet liberalised its procurement sector – it would be reasonable to assume that the market achieved under an FTA would be smaller than this figure.

Even if accepting, however, that the current Indonesian procurement market is roughly 6.7 per cent of GDP, it should be assumed that it possesses notable growth potential – particularly given recent increases observed in 2017; the pace of Indonesia's economic development; and its large population. However, for it to reach ratios observed in other OECD countries either the share of expenditures devoted toward procurements would have to increase or Indonesia would have to raise its public expenditures relative to GDP. As the latter has remained relatively constant over the past two decades, there would appear to be limited basis for assuming significant increases in this regard. At the same time, if expenditures as a percentage of GDP remain at 20 per cent, it would be overly ambitious to assume that Indonesia would devote 50 per cent towards procurements given the data in **Figure 4**. Assuming, then, some increase in public expenditures as a percentage of GDP and in the share of expenditures devoted toward procurements, the following assessment will operate under the assumption that Indonesia's procurement market may reach approximately 10 per cent of GDP by 2040.

In projecting GDP growth, data from the OECD are used which estimate a 2040 nominal GDP of IDR 25,710.93 trillion (2010 currency). Assuming, then, that procurements' share of GDP increases from 6.7 per cent in 2017 (as estimated from the TEPRA figure) to approximately 10 per cent, this would lead to an estimated procurement market of IDR 2,571.09 trillion by 2040. With this increase in wealth, it might similarly be assumed that a larger share of procurements would fall above the lowest GPA value-thresholds; however, the analysis will retain the 30 per cent figure derived from the 2017 TEPRA data. As such, this equates to a potential market for foreign procurements in Indonesia that may reach IDR 771.33 trillion by 2040 (approximately €64 billion in 2010 currency).

7.2.2. Economic impacts

EU

The EU maintains offensive interests with respect to liberalisation of public procurement under the agreement. Based on the text proposal presented by the EU, these goals include permitting EU providers to bid on as wide of a range of procurements as possible (market access), and ensuring that the bidding process is transparent, accessible and non-discriminatory (rules).[327] It is expected that the EU will push to ensure that all covered goods, services and entities abide by open-tendering procedures for procurements meeting the established thresholds and that all procurements are awarded according to technical standards and economic criteria.

With respect to rules, it is assumed that the EU-Indonesia FTA would generate benefits to EU providers by ensuring that all procurement notices and rules are more easily accessible and published sufficiently in advance of their submission date. This would likely include commitments by both sides to ensure that qualifying tenders are, to the greatest extent possible, published electronically on a publicly-available, single point of access, with a summary of key details potentially also provided in English. It is further assumed that the agreement would ensure that requirements related to demonstrating prior technical experience in tenders include all relevant experience regardless of whether it occurred outside of the Parties.

[327] European Commission, 2016, "EU proposal on Public procurement in the EU-Indonesia FTA", retrieved 18 August 2018 via: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155282.pdf

Such provisions would ensure that EU providers are able to more effectively generate benefits arising from the degree of access to the Indonesian market achieved under the agreement.

The extent to which these rules generate benefits for EU providers, however, depends on the degree of market access afforded under the agreement – including with respect to government entities and goods and services covered as well as the established thresholds. As highlighted in the preceding section, based on the current market there appears to be limited scope for the agreement to produce sizeable economic gains for potential EU providers even with meaningful commitments in market access by Indonesia. The size of Indonesia's procurement market remains small – particularly with respect to bids that fall above conceivable thresholds reached in the agreement – and low rates of public expenditures relative to GDP place notable limits on the extent to which it is likely to grow in the future. Thus, even under a very ambitious scenario where Indonesia agrees to wide ranging coverage (such as observed in the EU-Vietnam FTA) and thresholds in line with the lowest values found in the Annexes to the GPA, the EU-Indonesia FTA's chapter on procurement may not generate sizeable impacts for the EU with respect to economic indicators such as GDP, welfare and trade.

The potential overall impact becomes further limited when considering that Indonesia may seek exclusions for various entities – such as SOEs engaged in energy and mining and for many subnational jurisdictions – as well as thresholds for goods, services and construction that are higher than the lowest values found in the GPA. Such an outcome appears possible given that Indonesia has not yet made market access commitments in procurement or extended national treatment under any of its existing international agreements and since it will likely seek to maintain some ability to continue using procurement towards domestic policy objectives.

However, it was also noted in the previous section that Indonesia's procurement market may experience notable growth in the coming years. To this end, the preceding section provided the following baseline assumptions:

- GDP growth by 2040 in line with OECD estimates
- development of a procurement market that represents 10 per cent of GDP
- 30 per cent of the value of all procurements meeting the lowest relevant thresholds established in the Annexes to the GPA

Under these assumptions and considering the data provided by TEPRA, the value of procurements accessible to EU providers under an ambitious scenario could reach approximately €64 billion (2010 euros) by 2040 – a date by which all transitional allowances may expire and full liberalisation under the FTA may be achieved. While this is a potentially significant sum, this assumed degree of liberalisation may be restricted by potential exceptions for subnational jurisdictions and for the inclusion of higher thresholds for procurements at the subnational level.

As data distinguishing between national and subnational procurements is not readily available, estimates on how these assumptions would alter the projected market accessible to EU providers remains subject to speculation. However, even ignoring the potential extent to which this could reduce the size of the potential market accessible to EU providers, it is noted that a €64 billion market is relatively small, representing only 2.4 per cent of the total 2017 EU procurement market (€2,600 billion).[328] As such, increased economic opportunities afforded to EU

[328] Eurostat. Based on data that EU GDP in 2017 reached €15,300 billion and that GDP represents approximately 16 per cent of EU GDP.

provides as a result of liberalisation to Indonesia's procurement system under the FTA are expected to be relatively minor.

This is further assumed based on the fact that only a small percentage of this potential €64 billion market would be captured by EU competitors.[329] While EU firms would be well positioned to compete with domestic firms in a number of areas and would be expected to benefit most directly in provision of goods and construction services, even the most ambitious estimate of EU market share would not be expected to exceed 10 per cent (€6.4 billion annually in potentially revenue according to the above assumptions). Indeed, a more reasonable assumption would be an EU market share of 5 per cent among all qualifying procurements (€3.2 billion annually) by 2040, with a conceivable conservative scenario being 1 per cent (€0.64 billion).[330] The EU's market share could increase over time, but it might equally be eroded under the presumption that Indonesia would extend national treatment to other countries in future FTAs if agreeing to liberalise its domestic market within the agreement with the EU. To this end, however, there could be notable benefits to the EU over the long-term to the extent that EU providers are able to enter the market and capture "first-mover" advantages vis-à-vis other international competitors. Nevertheless, under the time horizon analysed here, the economic impacts are expected to be minor.

Indonesia

Indonesia, unlike the EU, maintains defensive interests with respect to the FTA's potential chapter on procurement. It is envisaged that the agreement could potentially produce impacts related to: (i) limiting Indonesia's ability to use procurement to promote domestic policy objectives (discussed as well in the social, human rights and environmental assessments); (ii) reducing domestic firms' market share and revenues; (iii) improving efficiency in the procurement market and lowering costs for the government; and (iv) improving transparency and accountability and reducing corruption (discussed also in the assessment on social and human rights impacts).

As noted, Indonesia's regulations on procurement explicitly express requirements that procurements seek to grant preferences to MSMEs; support local industry and enterprises; promote innovation; and make use of local content in goods and services supplied. From Indonesia's perspective, concerns may therefore arise over the extent to which liberalisation would limit the government's ability to employ policies towards meeting these objectives.

While the overall impact on policy space will depend heavily on the contents of the agreement, there are reasons to suspect that the effect will be limited. Currently, MSMEs are granted preferences for all procurements under IDR 2.5 billion (€146,000) – well below conceivable thresholds affording national treatment to EU competitors – suggesting that the government would likely retain the ability to promote their inclusion in the procurement process. While policy space may be diminished for other economic objectives under the EU-Indonesia FTA, the limited share of total procurements that will likely become open to EU providers under established thresholds should allow such opportunities to persist. The policy space, in particular, that is afforded to many of Indonesia's subnational jurisdictions would

[329] For example, the majority of procurements continue to be supplied by domestic providers, even after liberalisation – primarily because of laws of economic gravity, but also because FTAs have been shown to not fully remove barriers to local preferences in procurement. See, e.g., Rickard, Stephanie J. and D. Y. Kono, 2013, "Think globally, buy locally: International agreements and government procurement', *Review of International Organizations*, 1(1): 9-50.

[330] Any improvements to market access may result in larger gains in market share than typically observed following international agreements since domestic providers in Indonesia are largely shielded from international competition at present

likely remain unaffected – particularly its poorer, rural and less economically developed regions – to the extent that they are excluded from coverage under the agreement or that the thresholds agreed to are higher than those observed in the GPA.

Procurement policies that set-aside government expenditure for locally produced materials, however, remain a macroeconomic tool for affecting demand and growth – particularly during recessionary periods – and there is scope for this to be restricted to some extent by the agreement. This, however, could be mitigated by the inclusion of derogations during periods of economic recession. Further, in the case of procurements pertaining to largescale infrastructure projects – a common such expenditure to stimulate domestic demand – it is not clear that extending national treatment to EU providers would necessarily inhibit these aims since the majority of inputs (particularly labour) would likely continue to be sourced locally.

For domestic providers, increased competition would almost certainly result in some degree of lost market share and revenue as EU providers for certain goods and services would likely possess a competitive advantage – particularly for procurements requiring a higher degree of technical expertise. These losses, again, would however only pertain to a minor share of the country's total procurement market, likely shielding most domestic firms from competition. Furthermore, it is expected that the majority of EU providers active in Indonesia's procurement sector would establish a legal presence in Indonesia and/or continue to seek partnerships with local firms. This is likely to be particularly true for larger-scale construction services, which would necessarily rely heavily on local inputs and partners in carrying out obligations under the tender.

In contrast, increases in competition arising from greater EU market access have the potential to lead to long-term gains by promoting greater efficiency in the procurement process. By helping to improve the value-for-cost of procurements, the FTA could allow government entities to increase their real budgetary expenditures, leading to more disposable revenue that could in turn be devoted to additional public goods provision. The extent of this impact, however, depends largely on the ultimate decisions made in spending that arise from any associated savings. Moreover, rules-based provisions that improve accessibility to procurement information could conceivably lead to greater participation by Indonesian providers, helping to decrease the high degree of concentration currently present.

Increased competition and oversight from greater EU involvement and rules-based provisions included in the FTA could, however, have more meaningful economic impacts for Indonesia with respect to its ability to reduce government waste arising from corrupt practices in the procurement process. As noted by Indonesia Corruption Watch, a significant portion of funds used in procurement remain outside the scope of transparent oversight, while the system remains widely subject to acts of corruption. For example, of the total number of corruption cases brought by the GoI in 2017, approximately 42 per cent (241 cases) were related to the procurement of goods and services, resulting in losses of IDR 1.5 trillion (€88.2 million).[331] Of these, the three most common types of cases are related to misuse of funds (67 cases), illegal mark-ups (60 cases) and fictitious activities and projects (33 cases). Further, following the issuance of Supreme Court Regulation No. 213 of 2016 concerning Procedures for Handling Corporate Crimes, law enforcement officials successfully took action against four corporations – with each case related to corruption in public procurement.

[331] Indonesia Corruption Watch, 2018, "Tren Penindakan Kasus Korupsi PBJ 2017", retrieved 24 August 2018 via: https://www.antikorupsi.org/id/kajian/tren-korupsi-pbj-2017

Rules-based provisions within the EU-Indonesia FTA that increase transparency and provide mechanisms for enforcement and oversight have the potential to help further reduce corruption in Indonesia's procurement sector. Such an outcome would not only reduce government waste but could produce more meaningful economy-wide effects by improving the quality of governance at the central and subcentral levels and diminishing predatory and anti-competitive practices. Nevertheless, it is important to consider the extent to which this might be achieved in the absence of the FTA. To this end, it is noteworthy that the GoI has achieved progress in recent years towards improving oversight of the country's procurement system. This, in turn, has led to notable decreases in public funds lost through corrupt practices.[332]

Thus, the extent to which the agreement can improve or accelerate transparency in Indonesia's procurement sector in excess of what would arise in the baseline scenario is unclear. The rules-based and procedural provisions of the agreement would conceivably include commitments to: (i) establish clear procedures and requirements as well as a single point of electronic access; and (ii) expand the number of procurements subject to competitive tendering. However, the GoI has already taken steps in this direction, with the recent promulgation of PR 16 further advancing these developments. While there is scope for the agreement to provide commitments by the EU to assist Indonesia in these efforts, it is noted that the latter is already receiving assistance from foreign donor agencies (including previous EU assistance) and is expected to continue to improve its procurement system in these areas even in the absence of an agreement.

Overall, the potential economic impact for Indonesia as a result of the FTA's chapter on procurement appears to be limited. Even under an ambitious outcome in terms of thresholds (at the lowest levels found in the GPA), the majority of Indonesia's procurement market would likely remain inaccessible to EU firms, providing government entities with policy space to use procurements towards a number of domestic economic objectives. While increased EU competition would likely reduce market share and revenues for domestic providers, it would be expected to increase the number of suppliers, providing value-for-cost benefits to government, improvements to overall efficiency and, potentially, increases in FDI. Increased EU participation and rules-based commitments would, additionally, help further limit corruption, which remains a wide scale problem in Indonesia's procurement sector.

Furthermore, while not directly relevant, it is worth considering the potential trade-offs to Indonesia from choosing not to liberalise procurement within the context of the agreement. Given the EU's offensive interests, liberalisation of the sector could afford reciprocal concessions in areas of offensive interest to Indonesia. Refusals to provide concessions could, therefore, limit beneficial improvements with respect to access to the EU domestic market in other sectors.

7.2.3. Social and human rights impacts

This section explores the potential social and human rights impacts with respect to employment, quality and decency of work, policy space, quality of goods and services, health and safety and education. Overall, it concludes that impacts associated with these indicators would likely be minor given the limited scope of

[332] For example, Indonesia Corruption Watch further reports that losses as a result of corruption in the procurement process led to losses of IDR 6.01 trillion and IDR 7.16 trillion, respectively, in 2013 and 2014. (Republika, 2016, "Kerugian Negara Akibat Korupsi Menurun pada 2015", retrieved 22 August 2018 via: https://www.republika.co.id/berita/nasional/umum/16/02/24/o321yb383-kerugian-negara-akibat-korupsi-menurun-pada-2015

potential economic impacts that are expected to arise from the EU-Indonesia FTA's chapter on procurement.

For the EU, the public procurement sector is already subject to a large degree of liberalisation and it is not envisaged that the agreement with Indonesia would materially impact the public authorities' degree of policy space. Further, as Indonesia is not expected to emerge as a major competitor in the EU's procurement market over the time horizon assessed in this analysis, noticeable impacts are also not anticipated with respect to quality of goods and services, education, quality and decency or work, or health and safety. Potential positive impacts may arise in terms of employment or increases in wealth (and thus the right to an adequate standard of living) as a result of greater access to Indonesia's procurement market. However, this is expected to be limited – particularly given the relatively small market size to which EU providers may gain access.

Instead, it is more likely that any associated social and human rights impacts would be experienced by ***Indonesia*** as it is expected to be more directly affected by the FTA's chapter on public procurement. Here, impacts associated with employment are likely to be limited although increased competition with the EU may result in some losses as a result of an increased EU market share. However, these losses would be expected to only arise in a minor share of the procurement market as the majority of tenders will likely remain outside of market access commitments. Furthermore, any losses would be mitigated as a result of EU firms continuing to partner with local firms and through continued use of local inputs and labour in carrying out procurements. Additionally, the ability for government entities to apply preferences for MSMEs is likely to persist given that such tenders would be expected to fall below the FTA monetary thresholds that would trigger the extension of national treatment to EU providers.

As noted earlier, *PR 16* explicitly advocates the use of public procurement to meet a number of social objectives. These include the promotion of economic equality, fair working conditions, empowerment of local communities and diversity as listed in Article 68. While it is possible that the agreement establishes limits on policy space for use in meeting such ends, it is expected (i) that the majority of procurements explicitly including such preferences would fall below thresholds established in the agreement; and (ii) some subnational jurisdictions utilising such preferences may be excluded from the agreement. Under such an outcome, it is expected that Indonesia would experience only minor restrictions in policy space with respect to using procurement towards these ends.

While increased competition would likely lead to decreases in the costs of procurement, commonly expressed concerns on its liberalisation relate to accompanying decreases in the quality of essential public goods and services. However, the potential for the EU-Indonesia FTA to negatively impact the quality of goods and services is likely limited. Services such as health and education have largely been devolved to subnational jurisdictions and are likely to be excluded from coverage under the agreement's chapter on public procurement. Further, it is expected that the agreement would provide allowances to award tenders according to qualitative considerations, providing safeguards against a "race to the bottom" in terms of procurement quality. To this end, it is worth noting that firms operating in procurement markets have inherent incentives to provide services that are viewed favourably by the Contracting Authority to increase the likelihood of future business opportunities. For EU enterprises, this desire is compounded by the fact that entering a new market such as Indonesia would entail initial start-up costs that may only be worth incurring under the prospect of gaining additional future procurements. Moreover, Indonesia's status as a democracy provides, to some extent, an additional mechanism for ensuring that local officials are providing goods

and services of an acceptable quality. However, of the fact that civil society is still in early stages – particularly in less economically developed and rural regions – inhibits the overall effectiveness of informal oversight, while it should also be noted that Indonesia's status as a democracy has not yet precluded the existence of corrupt practices in procurement by officials and contractors.

As noted above, there is potential scope for the agreement to produce positive social impacts through its ability to place further restrictions on the possibility for the government to use the procurement system to engage in corrupt practices. To the extent that this occurs, the agreement could provide positive social and human rights impacts related to improvements in governance. However, given recent improvements by Indonesia in curtailing corruption in procurement, it is not clear that the agreement would produce significant gains well in excess of what may be expected under the baseline scenario.

With respect to health and education, it is again noted that many of the relevant procurements in these areas are likely to be excluded from the scope of the FTA – particularly among subnational jurisdictions. As a result, it is not envisaged that the FTA would produce notable direct impacts on human rights associated with either health or education.

7.2.4. Environmental impacts

This section explores the environmental impacts that could potentially arise as a result of the EU-Indonesia FTA's chapter on procurement with respect to policy space, quality of goods and services, water usage, pollution and carbon emissions and natural resource stocks. Overall, it concludes that impacts associated with these indicators will likely be minor given the limited scope of potential economic impacts expected to arise from the agreement.

As the expected impacts on the EU are limited, this section focuses exclusively on the potential environmental effects that may emerge in Indonesia as a result of the agreement's chapter on procurement. Beginning with considerations related to policy space, it is noted that *PR 16* includes provisions for providing preferences to procurements that promote environmental sustainability, with Article 68 explicitly emphasising a preference for procurements that reduce the negative impact on air, water and soil quality as well as those that promote sustainable use of resources. The scope for the FTA to restrict government actors' ability to use procurements towards these objectives is likely limited, however, since the EU appears willing to adopt provisions within the chapter that would allow tenders to take environmental considerations into account "provided they are non-discriminatory and relevant to the contract".[333]

The allowance of qualitative considerations based on environmental objectives further reduces concerns that increased competition arising from the agreement may promote a "race to the bottom", where environmental criteria would become secondary to economic criteria within the tendering process. Given, moreover, the EU's relative expertise in the provision of green procurement, greater access for EU operators to the Indonesian market may provide improvements to the environmental goods and services supplied, which could produce positive environmental impacts. However, it is possible that this outcome could also emerge in the absence of the FTA, even if to a lesser extent, since current regulations permit procurements to employ foreign goods and foreign suppliers in instances where the procurement cannot be carried out through domestic sources.

[333] European Commission, 2016, "EU proposal on Public procurement in the EU-Indonesia FTA", retrieved 18 August 2018 via: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155282.pdf

Table 24: Indonesia's Public Procurements by Type and Value, 2017

Type of procurement	≤ IDR 200 million		> IDR 200 million, ≤ IDR 2.5 billion		> IDR 2.5 billion, ≤ IDR 50 billion		> IDR 50 billion ≤ IDR 100 billion		> IDR 100 billion		Self-management		Total			
	Total No.	Value (IDR billion)	Total No.	Value (IDR billion)	Total No.	Value (IDR billion)	Total No.	Value (IDR billion)	Total No.	Value (IDR billion)	Total No.	Value (IDR billion)	Total No.	Value (IDR billion)	% of total no.	% of total val.
Goods	527,783	21,223.13	58,166	40,168.49	8,256	65,120.53	378	29,641.63	153	71,764.07	-	-	594,736	227,917.9	24%	25.1%
Average value	-	0.04	-	0.69	-	7.89	-	78.42	-	469.05	-	-	-	0.38	-	-
Share of total goods	88.7%	9.3%	9.8%	17.6%	1.4%	28.6%	<0.1%	13%	<0.1%	31.5%	-	-	-	-	-	-
Construction	193,796	25,778.45	74,518	58,907.09	18,804	156,990.61	454	32,360.44	313	81,698.23	-	-	287,885	355,734.8	11.6%	39.2%
Average value	-	0.13	-	0.79	-	8.35	-	71.28	-	261.02	-	-	-	1.24	-	-
Share of total construction	67.3%	7.2%	25.9%	16.6%	6.5%	44.1%	<1%	9.1%	<1%	23%	-	-	-	-	-	-
Consulting services	136,903	5,635.7	16,138	10,311.53	991	5,558.78	6	482.14	8	1,860.28	-	-	154,046	23,848.43	6.2%	2.6%
Average value	-	0.04	-	0.64	-	5.61	-	80.36	-	232.54	-	-	-	0.15	-	-
Share of total consulting	88.9%	23.6%	10.5%	43.2%	<1%	23.3%	<0.1%	2%	<0.1%	7.8%	-	-	-	-	-	-
Other services	166,093	6,690.83	17,196	11,517.6	2,482	17,369.34	37	2,619.92	16	3,495.11	-	-	185,824	41,692.8	7.5%	4.6%
Average value	-	0.04	-	0.67	-	7.00	-	70.81	-	218.44	-	-	-	0.22	-	-
Share of total other services	89.4%	16%	9.3%	27.6%	1.3%	41.7%	<0.1%	6.3%	<0.1%	8.4%	-	-	-	-	-	-

Total	1,024,575	59,328.11	166,018	120,904.71	30,533	245,039.26	875	65,104.13	490	158,817.69	1,254,645	259,553.93	2,477,136	908,747.8	100%	100%
Avg value	-	0.06	-	0.73	-	8.03	-	74.41	-	324.12	-	0.21	-	0.37	-	-
Share of total	41.4%	6.5%	6.7%	13.3%	1.2%	27%	<0.1%	7.2%	<0.1%	17.5%	50.7%	28.6%	100%	100%	-	-

Source: TEPRA

Currency conversion:
IDR 200 million ≈ €11,790/$13,700
IDR 2.5 billion ≈ €147,420/$171,280
IDR 50 billion ≈ €2.95 million/$3.43 million
IDR 100 billion ≈ €5.89 million/$6.85 million

7.3. Intellectual Property

In general, Indonesia's IP legislation has developed considerably during the last decade and its policy and regulatory framework is generally in compliance with international standards. Indonesia is party to the Agreement on Trade-related Aspects of Intellectual Property (TRIPs Agreement), the Paris Convention for the Protection of Industrial Property, to Berne Convention for the Protection of Literary and Artistic Works and it has recently acceded to the Madrid Agreement that is facilitating international trade mark registration.[334] Despite progress at the regulatory level, IPR enforcement is considered relatively weak in Indonesia, reflecting ineffective enforcement mechanisms and a lack of institutional and technical capacity of the authorities and judiciary dealing with IPR infringement cases, weak border-protection measures, and a relatively low level of IPR awareness amongst businesses as well as authorities.[335]

The protection of IPR rights is a fundamental requirement for international trade as it promotes innovation and encourages investment in research and development. From the EU perspective, IPR-intensive industries account for most of EU trade.[336] The EU has always considered IPR rights as integral to FTAs and all its recent FTAs including EU-Vietnam FTA, EU-Singapore FTA and CETA have a dedicated chapter concerning IPR rights. In all these cases the EU has aimed for a strong IPR regime. At the same time, as IPR awareness is relatively low in Indonesia and IPR infringements are prevalent in the country and given to the general stage of development of the country, the Indonesia authorities may see the IPR chapter of the FTA as a lesser priority in the negotiations.

Baseline scenario

In the absence of an FTA, Indonesia's IPR regime would still be expected to marginally improve, since Indonesia has taken steps in recent years to strengthen its IP regime by enacting new laws and regulations that have brought its IPR regime closer to that of the EU's IPR, though it will only be evident in few years how the enforcement of these laws develops.[337] Furthermore, the ASEAN Economic Community is also committed to strengthening IP laws and regulations, affecting its members including Indonesia, further harmonising the IP regimes in ASEAN. In addition, the EU is also using other engaged in initiatives outside the FTA to encourage strengthening of the IPR regime in Indonesia, including the EU-ASEAN Project on the Protection of Intellectual Property Rights, the ASEAN Regional Integration Support Project and the IP-Key, which all aim at harmonising the systems for IP creation, protection, administration and enforcement in the ASEAN region, including Indonesia.[338] Despite such initiatives, these efforts remain a work in progress. A baseline scenario should consider that with increased development driven by technological advancements, countries tend to strengthen their IPR regime, as for example China has

[334] World Intellectual Property Rights Organization, "Indonesia", available at: http://www.wipo.int/wipolex/en/profile.jsp?code=ID
[335] South-East Asia IPR SME Helpdesk, "IPR Factsheet: Indonesia", 2016, available at: http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/Indonesia%20Fasctsheet.pdf
[336] European Commission, "EU Proposal on Intellectual Property Rights (IPR)" February 2017, available at: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155292.pdf
[337] European Commission, "Report on the protection and enforcement of intellectual property rights in third Countries", 2018, available at: http://trade.ec.europa.eu/doclib/docs/2018/march/tradoc_156634.pdf
[338] Ibid.

considerably improved its IPR enforcement mechanisms since its domestic businesses became more competitive and technology-intensive.[339]

Liberalisation scenario

Under a liberalised trade regime between the EU and Indonesia, brought about by an FTA, barriers would fall in important sectors and trade would increase. Under the provision of the FTA, the EU aims to achieve improved harmonisation and compatibility of the EU and Indonesian IPR systems in accordance with major international treaties, conventions and standards that Indonesia is still not yet party of, including for example the Hague Agreement on International Registration of Industrial Designs. The negotiations include all major areas of IPR rights including trademarks, where concerns include bad faith trade mark registration, patents, designs, undisclosed information and plant varieties, copyright and neighbouring rights, geographical indications and IPR enforcement, including IPR border measures.[340] The IPR measures negotiated are similar in scope to those of the EU-Vietnam FTA.

Negotiations on the section concerning patents and undisclosed data are seen to be contentious by some stakeholders. Sections of the business community have expressed concerns over Indonesia's patent law that requires local production to be patentable as registered in Indonesia. Additionally, the issue of governmental promotion of generic pharmaceuticals is of concern to the business community.[341] At the same time, the EU is negotiating for greater patent protection, especially concerning the enforcement and protection of undisclosed data.[342] The EU is also considering the need of the Indonesian government to offer affordable access to medicine to its citizens. To achieve this, similarly to EU-Vietnam FTA, the EU proposal includes the Doha Declaration, which allows for flexibilities in patent regime in the name of public health, meaning that the parties would keep the right to grant compulsory licenses and have the freedom to determine the grounds upon which such licenses are granted.[343]

It is generally recognised that strengthening the IPR regime will encourage innovation and creativity, since new innovations and creations can be protected from IPR infringements in the form of cheaper counterfeit or copy products. This is also believed to benefit the economy given the overall value added.[344] It is also acknowledged that stronger IP regimes can also incur costs, which are often disproportionately borne by developing countries, since stronger IPR rules favour producers and thus benefit countries with more innovation.[345]

[339] See for example: William Weightman"China's Progress on Intellectual Property Rights (Yes, Really)", The Diplomat, 2018, available at: https://thediplomat.com/2018/01/chinas-progress-on-intellectual-property-rights-yes-really/
[340] See the European Commission Proposal, available at: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155281.pdf
[341] Views expressed by a stakeholder.
[342] European Commission, EU proposal on intellectual property in the EU-Indonesia FTA, available at: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155281.pdf
[343]European Commission, "EU Proposal on Intellectual Property Rights (IPR)" February 2017, available at: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155292.pdf
[344] Shahid Alikhan, Socio-economic benefits of intellectual property protection in developing countries, World Intellectual Property Organization, 2000, available at: ftp://ftp.wipo.int/pub/library/ebooks/wipopublications/wipo_pub_454e.pdf
[345] Commission on Intellectual Property Rights, "Overview", Integrating Intellectual Property Rights and Development Policy, Report of the Commission on Intellectual Property Rights, 2002, available at: http://www.iprcommission.org/papers/pdfs/final_report/CIPRfullfinal.pdf

EU producers are expected to benefit from the stronger IP protection in Indonesia since harmonised IPR registration and compliance standards would reduce the costs associated with IP management (including filing, monitoring and enforcement of rights). European SMEs, in particular, would benefit from stronger and more harmonised IP regime with Indonesia, since enforcement costs tend to disproportionately affect SMEs with limited resources to undertake costly action in markets with weak IPR enforcement, and often times unpredictable court proceedings. This can translate into increased trade in IPR-intensive products from the EU into Indonesia, as the confidence of EU producers rises. Strong IP enforcement in turn can put pressure on Indonesian SMEs and other producers that rely on copying the technology and technology transfer, since there is a considerable gap in investments on R&D between the EU and Indonesia.[346] At the same time, a strong IPR regime favours investments, as it increases investor confidence.[347] This, thus, has the potential of increasing EU investments into Indonesia which would have an overall positive knock-on effect for the Indonesian economy.

Geographical indications

Responding to the opportunities of more open trade under the FTA, a priority issue for the EU is the protection of geographical indications (GIs), where the EU is seeking recognition and adequate protection. Even though Indonesia has recently strengthened its laws on trademarks and geographical indications, issues have been identified with trade-marks composed of geographical location names. In this regard Indonesia has already presented a list of potential conflicts between EU's geographical indications and prior trademarks registered in Indonesia and it has requested during the 4th round of negotiations to allow for trademarks for non-genuine geographical indications to be phased out.[348] It is expected that the FTA would have a chapter on geographical indications similar in scope to the other FTAs that the EU has negotiated in Asia.

Effective protection of GIs in Indonesia can boost rural development in both the EU and in Indonesia and increase GI trade and cooperation between them.[349] While the EU has over 1000 registered GIs, Indonesia currently has 50 registered geographical indications.[350] The FTA under negotiation is likely to have a defined number of geographical indications protected as has been the case with EU-Vietnam FTA (covering 169 GIs) or the EU-Canada FTA (covering 143 GIs, excluding wines and spirits, which are covered by a separate agreement). This would still allow the European Union to promote the production and export of high quality and high value-added agricultural products particularly from small rural places. Increased opportunities for small rural places translate to rural development.

While GI promotion in Indonesia has not been as extensive as in the EU, the Indonesian government has recently stepped up promotion of its own GI protected coffee products. It has launched a pilot project on coffee focusing especially on Kintamani arabica coffee from northern Bali. The project is being coordinated by the Indonesian Coffee and Cocoa

[346] According to Eurostat and UNESCO, the EU spends about 2.03% of its GDP on R&D while Indonesia spends about 0.1% of its GDP on R&D.
[347] South-East Asia IPR SME Helpdesk, "IPR Factsheet: Indonesia", 2016, available at: http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/Indonesia%20Fasctsheet.pdf
[348] European Commission, Report of the 4th round of negotiations for a Free Trade Agreement between the European Union and Indonesia, February 2018, available at: http://trade.ec.europa.eu/doclib/docs/2018/march/tradoc_156642.pdf
[349] European Commission, "EU Proposal on Intellectual Property Rights (IPR)" February 2017, available at: http://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155292.pdf
[350] Geographical Indication in Indonesia, World Intellectual Property Organization, available at:http://www.wipo.int/edocs/mdocs/geoind/en/wipo_geo_yty_17/wipo_geo_yty_17_21.pdf

Research Institute and local authorities.[351] International GI protection could thus also increase trade in the coffee sector from Indonesia to the EU in the long-run. On the other hand, the outputs of the CGE model has allowed predictions (based on assumptions) concerning increased exports of European GI protected dairy products, especially cheeses, and GI protected beverages, including alcoholic beverages. According to the CGE model, EU exports of milk and dairy to Indonesia are estimated to increase 33 per cent, (approximately €80 million), while EU exports of beverages (aggregated together with tobacco products in the CGE model) are estimated to increase 313 per cent (€120-€125 million). At the same time, it should be noted that EU exports to Indonesia will need to face the compliance requirements of Indonesia's Halal laws and regulations, which are not accounted for in the CGE model.

Pharmaceuticals

The pharmaceuticals sector has certain sensitivities for stakeholders, particularly when trade is between a more advanced region such as the EU and a developing country such as Indonesia. Current Indonesian patent laws expand the scope of compulsory licenses, which the government can give on the basis of public health concerns in order to make medicine more affordable to people. The compulsory licenses also cover import of patented pharmaceutical products and exporting patented pharmaceutical products to developing or under-developed countries in need of certain pharmaceutical products.[352] Additionally, the current patent law does also not allow new patents on pharmaceuticals which have run out of patent protection time unless the new patent sought is able to demonstrate significant efficacy. The Indonesian government can use these measures to increase the availability of affordable drugs to its citizens to guarantee its people's right to health and access to medicines.

Stakeholder concerns include the following. The Pharmaceuticals sector in the EU is concerned that the patent law acts as a de-facto market entry barrier, while civil society organizations are concerned that strengthening IPR further would result in an extended patent period for already expensive branded medicines, making it harder for Indonesian people to obtain cheaper generic drugs. From the industry perspective there is a concern that this would in turn constrain Indonesia's efforts to build a national pharmaceutical industry that can contribute to the production of cheaper generic medicines for its population.[353] The knock-on effect could affect marginalised groups in society and go against their right to health. The authorities are keen to attract more foreign investments into the pharmaceutical sector allowing foreign investors to acquire ownership of pharmaceutical companies. Furthermore, the private healthcare sector has also grown considerably during the past five years in Indonesia. Responding in part to these concerns, the EU text proposal also includes references to the Doha Declaration, which would allow Indonesia to consider its development needs and make cheaper pharmaceuticals available for its population.

Registration of Pharmaceuticals in Indonesia

[351] See for example, Agricultural Research For Development, "Geographical indications in emerging countries", available at: https://www.cirad.fr/en/our-research/research-results/2006/geographical-indications-in-emerging-countries

[352] See for example Manufacturing Chemist, "Pharmaceutical patent issues in Indonesia", 2017, available at: https://www.manufacturingchemist.com/news/article_page/Pharmaceutical_patent_issues_in_Indonesia/128093

[353] SOMO, The EU – Indonesia CEPA negotiations, February 2018, available at:https://www.somo.nl/wp-content/uploads/2018/02/The-EU-Indonesia-CEPA-negotiations.pdf

According to EuroCham Indonesia data, the Pharmaceuticals market in Indonesia remains dominated by local companies, with 72 per cent of the local market being shared between State-Owned Enterprises and domestic companies, while the multinational companies currently hold 28 per cent of the market[354].

Registration of imported pharmaceuticals falls under the Food and Medicine Supervisory Board (*Badan Pengawas Obat dan Makanan*) (BPOM) and follows the latest *Regulation No. 24 of 2017 on Criteria and Drug Registration Procedure*, which simplifies the registration of pharmaceuticals in Indonesia.

Despite the simplification of rules and regulations concerning the registration of pharmaceuticals in Indonesia, foreign companies still face some considerable restrictions in this regard. Only companies that have presence in Indonesia and manufacture products locally (companies are only allowed 67 per cent foreign investment) can directly register products with the BPOM, while companies seeking to import pharmaceuticals need to cooperate with local Indonesian companies that register products in the country with the authorization of the importer[355].

All pharmaceuticals to be registered in Indonesia must fulfil, among other things, the required quality standard, which states that products need to be produced based on a Good Manufacturing Practices (Cara Pembuatan Obat yang Baik - "CPOB") certificate. This must be supplemented with valid evidence.[356] There is also a registration fee for pharmaceutical products.

The *Halal Product Assurance Law No. 33* of 2014, that is not fully in the force yet, stipulates mandatory halal certification and labeling requirements for goods and services relating also to the pharmaceutical industry. According to the Halal Law, mandatory halal-verification process has to be carried out, including tracing the raw materials used in production and examination of the manufacturing processes and relevant production and storage facilities by appropriate authorities[357].

New plant varieties – seed patents

Another potentially contentious issue highlighted in stakeholder consultations concerns new plant varieties. Currently, Indonesia's laws and regulations allow for farmers' rights to save, use, exchange and sell farm-saved seeds, reflecting the 2013 ruling in which the Constitutional Court in Indonesia had ruled that small-hold farmers are allowed to save, use, exchange and sell farm-saved seeds without the permission of the government.[358] This was an important ruling for the small-hold farmers, some of whom live from the sale and breeding of their local seeds, using traditional knowledge. As their awareness of IPR issues is relatively low, they run the risk of unknowingly infringing stronger IP regulations.

[354] Eurocham Indonesia, "Pharmaceutical and Medical Technology", *EuroCham Position Paper 2018*, available via: http://www.eurocham.id/publications
[355] Ibid
[356] Global Business Guide, "New Regulation on Criteria and Drug Registration Procedure", available at: http://www.gbgindonesia.com/en/main/legal_updates/new_regulation_on_criteria_and_drug_registration_procedure.php
[357] Eurocham Indonesia, "Pharmaceutical and Medical Technology", *EuroCham Position Paper 2018*, available via: http://www.eurocham.id/publications
[358]See for example, GRAIN, "Our seed, our sovereignty - seed law victory in Indonesia" 2013, available at: https://www.grain.org/bulletin_board/entries/4774-our-seed-our-sovereignty-seed-law-victory-in-indonesia

The EU text proposal for the Intellectual Property Rights Chapter also aims to strengthen the IPR rules and regulations in the field of new plant varieties proposing that the parties would protect new plant varieties through the International Convention for the Protection of New Varieties of Plants, which would strengthen the rights of the breeders. Civil society stakeholders are concerned that this would conflict with the small-hold farmers' rights and that small-hold farmers would face penalties for unwittingly "stealing the seeds".[359] furthermore, they are is concerned that enforcement of the International Convention for the Protection of New Varieties of Plants would strengthen the monopoly of big corporations over the rights of small-hold farmers as the convention is not always able to take into account the characteristics of seeds developed by small-hold farmers. Some civil society organisations have noted that before the Constitutional Court ruling, some small-hold farmers may have been prosecuted for selling the seeds they were able to breed using the local traditions and knowledge.[360] As a result, small-hold farmers in Indonesia could be negatively impacted by new plant varieties provisions in the prospective FTA and stakeholders voicing these concerns urge negotiators to take into account the needs of small-hold farmers in Indonesia. On the other hand, stronger IP regulations on new plant varieties would allow SME farmers and other companies in Indonesia to be able to sell their seeds in a stable and predictable environment. Concerned stakeholders have suggested that the FTA would ideally need to consider both the rights of breeders as well as try to address the concerns of small hold farmers. In most cases, they consider that education and training on IPR rights should accompany any clauses in the FTA which would require the adoption of new IPR practices, especially enforcement practices.

7.4. Global Value Chains

Participation in the global value chains (GVCs) can be important for both developed and developing countries, as increased participation in GVCs can lead to productivity growth, increased job creation and economic growth in both developed and developing countries.[361]

Baseline

The UNCTAD World Investment Report 2018 indicates that Indonesia's global value chain participation rate in 2017 was 50 per cent, which is placing Indonesia amongst the average in the region, with countries like Malaysia and the Philippines being better integrated to the GVC than Indonesia.[362] This ranking has not changed considerably since 2010. At the same time, the report is also showing that in Indonesia the downstream component of the GVC participation (roughly 40 per cent of the overall GVC participation) is more prominent than the upstream component (roughly 10 per cent of the overall GVC participation)[363]. In the case of Indonesia, this means that Indonesia is mostly participating in the GVC as the provider of raw materials and intermediate goods to other countries for further processing and is not so much active in importing foreign basic or intermediate products for further

[359] See for example Indonesia for Justice, "Press Release – Coalition for Economic Justice Responding World Food Day October 16th 2016", available at: https://igj.or.id/press-release-coalition-for-economic-justice-responding-world-food-day-october-16th-2016/?lang=en

[360] See for example GRAIN, "Our seed, our sovereignty - seed law victory in Indonesia" 2013, available at: https://www.grain.org/bulletin_board/entries/4774-our-seed-our-sovereignty-seed-law-victory-in-indonesia

[361] WTO, "Global Value Chains", available at: http://www.worldbank.org/en/topic/global-value-chains

[362] United Nations Conference on Trade and development, "*World Investment Report 2018: Investment and New Industrial Policies", 2018*, available at: http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf

[363] In this report downstream integration means that countries provide input to other countries' exports and upstream means that countries use input from other countries' exports for producing goods and services. As explained in: United Nations Conference on Trade and development, "*World Investment Report 2018: Investment and New Industrial Policies", 2018,* available at: http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf

processing providing the value added in final stages of products.[364] In terms of upstream component of the GVC participation, Indonesia's participation is noticeably lower than the participation of many countries in the region, including Vietnam and Thailand. Indonesia has also been struggling with moving up the global value chains.

According to the OECD data, Indonesia has the strongest participation in GVCs in the mining sector and chemicals and minerals sector followed by electrical equipment and transport and telecoms products.[365] Participation in mining, chemicals and minerals sector is mainly characterised by downstream links in GVC participation, meaning that Indonesia is the provider of basic and intermediary goods for further processing. At the same time, participation in electrical equipment and machinery as well as textiles and apparel section are characterised by increasing upstream links in GVC participation. The report also shows that most of the final demand for manufactured goods and market services in Indonesia represents value added, that has been created domestically.

Indonesia is also participating in the GVC through services component of products. In 2009, most of the value added to the exports was created in the distribution and transport, storage and telecommunications industries.[366] With the rapid development of ICT industry, which benefits both the developing and developed countries, Indonesia has the chance of increasing its participation in the GVC in the ICT-related services sector. Existing participation of Indonesian SMEs in the global value chain of the EU is mainly in the agricultural sector, machinery and appliances and footwear and textiles. This means that both downstream and upstream links are present in the trade relationship with the EU.

Compared to Indonesia, the EU as a whole participates more in the upstream component of the GVC, even though there are some regional differences.[367] While the EU as a whole is generally well-integrated into the global value chains, its SMEs are oftentimes less integrated into the GVCs. For example, in the EU only 31 per cent of the SMEs were involved in business outside the EU Internal Market in the previous three years from 2015 data.[368] At the same time, a clear majority of the SMEs (around 80 per cent) were involved in the business within the Internal Market.

Liberalisation and analysis

It is generally considered that trade liberalisation increases countries' participation in GVCs[369] and thus an FTA that reduces tariffs and non-tariff barriers theoretically offers opportunities for both sides to increase their participation in global value chains, as tariff reductions allow for more price competitiveness. According to the CGE model, bilateral trade from trade liberalisation under the FTA is likely to considerably increase in many sectors including textiles, wearing apparel, leather products, milk and dairy, motor vehicles, machinery and chemical and rubber products and in the metal products sector. Some opportunities for increasing the GVC participation could also therefore be more prevalent in these sectors. For example, in the textiles, wearing apparel and leather products sector, the CGE model estimates an increase in EU imports from Indonesia (50 per cent in case of

[364] United Nations Conference on Trade and development, "*World Investment Report 2018: Investment and New Industrial Policies", 2018*, available at: http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf
[365] OECD, "Global Value Chains (GVCs): Indonesia", 2013, available at: http://www.oecd.org/sti/ind/GVCs%20-%20INDONESIA.pdf
[366] Ibid
[367] United Nations Conference on Trade and development, "World Investment Report 2018: Investment and New Industrial Policies", 2018, available at: http://unctad.org/en/PublicationsLibrary/wir2018_en.pdf
[368] Flash Eurobarometer 421, "Internationalisation of Small and Medium-sized Enterprises", 2015, available at: file:///C:/Users/Maayan/Downloads/fl_421_sum_en.pdf
[369] WTO, "Global Value Chains", available at: http://www.worldbank.org/en/topic/global-value-chains

textiles, 77 per cent in case of wearing apparel and 51 per cent in case of leather products under the conservative scenario and 50 per cent in case of textiles, 78 per cent in case of wearing apparel and 51 per cent in case of leather products under the ambitious scenario) as well as increases in global exports and decrease in output in the EU. These projected outcomes suggest greater sectoral integration between Indonesia and the EU, which translates into increased participation in global value chains – especially for Indonesia as its integration into global value chains has been relatively low.

Since Indonesia is a labour-intensive country, most of its GVC participation in is also likely to increase in the labour-intensive manufacturing sectors, supported by the effects of trade diversion from its competitors in the region. Since machinery and textiles as well as apparel sectors are also characterised by Indonesia's increasing backward participation[370] in GVCs, it is likely that Indonesia will also have slightly more opportunities in these sectors to increase its GVC participation as well as to move up the global value chain. At the same time, the CGE model projects that Indonesia will experience notable declines in output and exports of motor vehicles and parts, machinery, paper and paper products, chemical, rubber and plastic products and metal products, while expecting greater industrial concentration in the textiles sector as well as wearing apparel and leather products sector. This suggests that Indonesia will also have greater increase in participation in global value chain in textiles, wearing apparel and leather products sector than in other sectors. At the same time, as explained in the **Chapter 3.2.2**, the FTA is expected to increase Indonesia's forward participation in global value chains as a provider of cheaper intermediary goods.

One sector, where Indonesia is also expecting greater participation in global value chains is electronics, in which Indonesia is assumed to increase output by 0.8 per cent under the conservative scenario and 1 per cent under the ambitious scenario. As the electronics sector has been traditionally characterised by Indonesia's backward participation, opportunities in moving up the value chain may exist in this sector under the EU-Indonesia FTA.

At the same time, some stakeholders have expressed concerns about the potential role that Indonesia's companies would have in the automotive manufacturing sector, in which Indonesia is expected to experience a decrease in output under the FTA, according to CGE projections. This is especially concerning since the Indonesian automotive sector is relying heavily on SMEs and micro-enterprises, which traditionally face greater difficulties in integrating into global value chains. Stakeholders are concerned that the EU multinational companies would not increase their production networks in Indonesia, where Indonesian companies could also increase their participation in the global value chains in the automotive sector.[371] Thus, stakeholders are concerned that Indonesia would not increase its participation on in GVC in the automotive sector and would not be able to move up the value chain either.

Stakeholders have also pointed out[372] that one sector that could see Indonesia's increased participation in global value chains is the service industry. In the service industry, the rapid development of technologies (especially ICT) is expected to increase Indonesia's competitiveness and thus provide opportunities to integrate into global value chains, especially in ICT sector or creative industries. In these sectors moving up the value chain is also possible.

[370] Backward participation measures foreign inputs in country's exports, while forward participation measures country's domestic inputs in other countries' exports, as explained in OECD, "Global Value Chains (GVCs): Indonesia", 2013, available at: http://www.oecd.org/sti/ind/GVCs%20-%20INDONESIA.pdf
[371] This issue was brought up during the local workshop in Jakarta.
[372] During the workshop in Jakarta

It has also been pointed out that one major disadvantage for Indonesia is currently the transportation costs of products produced in Indonesia regardless of where these products are in the value chain. This also includes domestic transportation where Indonesia is facing many difficulties. Furthermore, as an archipelago, Indonesia depends on shipping lines and air transport, where direct shipping lines to EU ports can reduce transport costs of goods, which can further increase the trade in goods, allowing Indonesia to better integrate into global value chains.

In relation to the direct impact on the integration of Indonesian SMEs into the EU's GVCs, it is expected that a prospective FTA could assist the Indonesian SMEs in further integrating in global value chains through more knowledge exchange and investment within sectors with existing bilateral trade. However, on the other side, stakeholders have stated that currently the expertise, knowledge and capacity is lacked by the Indonesian SMEs to integrate further in the GVCs of Europe. Indonesian SMEs are more focused on the ASEAN market instead of the EU market. The impact of the FTA might be less pronounced as a result of this. Also, as the EU has existing supply and value chains for certain sectors throughout ASEAN that do currently not include Indonesian SMEs, according to stakeholders it is unlikely that Indonesian sectors that currently have limited bilateral trade with the EU will further integrate into the EU global value chain. SMEs active in the agricultural sector, machinery and appliances and footwear and textiles sector will most likely see the most increased integration in GVCs. As mentioned, according to stakeholders, the key for increasing integration of Indonesian SMEs into the global value chains is providing them with knowledge in order to increase their capabilities to further engage in trade with EU counterparts.

8. Detailed Sector Analyses

Chapter 8 takes a closer look at the economic, social, human rights and environmental impacts in the six sectors selected for deeper analysis – vegetable oils and oilseeds, fisheries, energy and mining, clothing and apparel, motor vehicles and financial services sectors. In this chapter, it is noteworthy that, contrary to concerns raised by many stakeholders, direct economic impacts arising from the reduction in tariffs on **vegetable oils and oilseeds** under the prospective FTA are likely to be minor, with only marginal changes expected to Indonesia's production of palm oil. As bilateral trade in palm oil increases, it is suggested that the prospective FTA will largely promote diversion of Indonesia's palm oil exports to the EU away from third countries, rather than an increase in overall production.

Regarding the **fisheries** sector, the FTA would have a limited but positive economic impact on both parties; however, according to stakeholders, the main barrier for increased trade in fisheries between the EU and Indonesia currently lies in the capacity of Indonesian companies to meet EU standards regarding SPS and packaging.

The output in the **energy and mining** sector is expected to increase less than 0.1 per cent in the EU and decrease slightly in Indonesia leading to a slight decrease in employment. Since the mining sector in Indonesia has historically had issues with labour and human rights abuses, companies operating in this sector need to be mindful of indigenous people's land rights.

The **clothing and apparel** industry in in Indonesia is expected to increase over 10 per cent, potentially leading to a significant creation of jobs, while in the EU the clothing and apparel industry is expected to slightly decrease. The expansion of this sector in Indonesia raises concerns over labour conditions and human rights, especially regarding child labour.

The prospective EU-Indonesia FTA will bring overall positive economic impacts to the **motor vehicles and parts** sector both in the EU and Indonesia, increasing bilateral export from both sides. However, output of motor vehicles and parts is expected to decrease in Indonesia, leading to decrease in employment.

The prospective EU-Indonesia FTA is expected to have a limited economic impact on **financial services** sector in both countries, with the eventual outcome being dependent on investment liberalisation.

8.1. Vegetable Oils and Oilseeds

8.1.1. Economic impact assessment

Baseline

The vegetable oil and oilseeds sector is one of the largest sectors in terms of value in Indonesia, predominantly due to palm oil production (HS 1511). This sector is also of great importance to the trade relations between the EU and Indonesia. Having accounted for 55 per cent of global palm oil production and 62 per cent of global exports in 2017, Indonesia is the world's largest producer and exporter of palm oil. The EU, conversely, is the second largest importer of palm oil worldwide, with Indonesia accounting for 51 per cent of its

imports in 2017.[373] This makes the EU Indonesia's second most important export market for palm oil (after India), accounting for 14.5 per cent of its total exports in 2017.[374]

Indonesia produces around 35 million tons of palm oil and according to the Indonesian Palm Oil Producers Association (GAPKI) chairman Joko Supriyono, the country plans to increase palm oil production to over 40 million tons from 2020 onwards, stressing that the increased production would not come from the expansion of plantations but from increased production efficiency[375]. However, this is dependent on the changes in demand for palm oil as well as on trade relations.

EU tariffs for palm oil currently range between 0 and 10.9 per cent, and there is no EU legislation on palm oil specifically.[376] Conversely, the possibility for foreign investment in the palm oil industry in Indonesia is relatively open compared to other fields. At the same time, it is noteworthy that in line with Indonesia's Negative Investment List – updated in 2016 - among foreign operators only SMEs are allowed to invest in the sector.[377] Foreign capital ownership must be smaller than 95 per cent and a minimum of 20 per cent of raw materials used by the SME have to be sourced locally.[378]

The sustainability of palm oil production has become increasingly important - also in trade relations - and Indonesia has committed to achieving 100 per cent sustainable palm oil production. There are however challenges to this goal. In Indonesia, where the sector is heavily reliant on SMEs, the debate is often focused on possible tensions between the livelihood of people versus the importance of sustainable palm oil production.[379] The question of cost versus accountability for SMEs, especially in a country where a lot of people's livelihood depends on palm oil production, is getting more visibility. An important tool for the sustainability of palm oil production is the certification of sustainable palm oil. However, a large share of SMEs operating in or buying from the palm oil industry in Indonesia do not yet take into account the certification of sustainable palm oil from the Roundtable for Sustainable Palm Oil (RSPO).[380] Recently, Singaporean SMEs active in the Indonesian palm oil industry have expressed their intent to switching to palm oil that has been certified by the RSPO. At an event organized by the Southeast Asia Alliance for Sustainable Palm Oil (SASPO) in the spring of 2018, it was stated by stakeholders also operating in Indonesia that the cost to switch to sustainable palm oil should not be an issue as it would become cheaper in the future to trade in sustainable rather than non-sustainable

[373] External European Action Service, 2018, Palm Oil fact sheet, accessed on 26 August via https://eeas.europa.eu/sites/eeas/files/20180424_palm_oil_fact_sheet_en.pdf
[374] Observatory of Economic Complexity, 2017, Where does Indonesia export Palm Oil to? (2017), available via https://atlas.media.mit.edu/en/visualize/tree_map/sitc/export/idn/show/4242/2017/, original publication of website: Simoes, A. and Hidalgo, C., 2011, The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development. Workshops at the Twenty-Fifth AAAI Conference on Artificial Intelligence.
[375] "Indonesia to increase palm oil production to 42 million tons by 2020", *The Jakarta Post*, 2017, available at: https://www.thejakartapost.com/news/2017/09/08/indonesia-to-increase-palm-oil-production-to-42-million-tons-by-2020.html
[376] External European Action Service, 2018, Palm Oil fact sheet, accessed on 26 August via https://eeas.europa.eu/sites/eeas/files/20180424_palm_oil_fact_sheet_en.pdf
[377] Presidential regulation of the republic of Indonesia number 44, 2016, accessed on 8 August, 2018 via https://www.bkpm.go.id/images/uploads/prosedur_investasi/file_upload/REGULATION-OF-THE-PRESIDENT-OF-THE-REPUBLIC-OF-INDONESIA-NUMBER-44-YEAR-2016.pdf
[378] This counts for a plantation business with a total area of 25 Ha or more integrated to the processing units with the same or exceeding a certain capacity.
[379] Richardson, A., 16 January 2019, What do Indonesians really think about palm oil?, *Eco-Business*, available via https://www.eco-business.com/news/what-do-indonesians-really-think-about-palm-oil/
[380] Tan, J.L., 2018, SMEs can afford to switch to sustainable palm oil—why don't they?, *Eco-Business*, available via https://www.eco-business.com/news/smes-can-afford-to-switch-to-sustainable-palm-oilwhy-dont-they/

palm oil.[381] The expectation is that as the importance of sustainability of palm oil will increase in Indonesia and Southeast Asia in general, the supply chains and the demand for certified sustainable palm oil products will increase in the years to come and with that the accountability of SMEs operating in the field will automatically be enhanced through the certification. Enhanced sustainable production of palm oil will then also help Indonesia to trade with partners valuing this aspect of production.

Palm oil is used in a variety of sectors in the EU, including for the production of biofuels. In the context of the recent recast of the EU Renewable Energy Directive (REDII)[382], Indonesia has raised concerns about the cap set in the Directive for the contribution of all conventional (food and feed crop based) biofuels towards the EU renewable energy targets, and the additional gradual reduction for biofuels from crops for which there has been a significant expansion on high carbon stock land.

The overall expectation in the baseline scenario is that palm oil production and consumption in Indonesia will continue to grow. This reasoning follows the findings of the World Bank's Commodities Markets Outlook of 2018.[383] In the last twenty years palm oil production in Indonesia has increased each year. It is unlikely this will change anytime soon. Palm oil consumption in Indonesia has also grown every year for the last years. China, India and Pakistan also see increases in their palm oil consumption and this trend is likely to continue.

Liberalisation and impact analysis

Given the current importance of the vegetable oils and oilseeds industry for bilateral trade between the EU and Indonesia, this is anticipated to continue to be the case under the FTA. However, the direct economic impacts arising from a reduction in tariffs on vegetable oils and oilseeds under an agreement is likely to be minor according to CGE modelling results, with only marginal changes to Indonesia's production and exports expected. With the EU's non-discriminatory approach — in terms of its regulation – toward all vegetable oils and oilseeds, no obstructing trade barriers may be anticipated for the access of vegetable oils and oilseeds to the EU market. However, the public debate on the FTA will most likely include a focus on the increasing concern amongst EU's consumers with respect to the social, human rights and environmental impacts often linked to the palm oil industry, as reflected for instance in the European Parliament's "Resolution on Palm Oil and deforestation" in April 2017.[384]

In general, the economic impacts of an FTA on the vegetable oils and oilseeds industry are not likely to be as pronounced as those expected to arise in other sectors of the economy. To this end, the Study's CGE model projects that Indonesia will experience a marginal decrease in total sectoral output as a result of the FTA, with declines of 0.06 per cent under the conservative scenario, and a 0.04 per cent decrease under the ambitious modelling scenario. As noted in the macroeconomic assessment (see **Chapter 3.2.1**), this outcome is anticipated to arise through the agreement's promotion of a reallocation of resources towards the manufacturing and export of textiles, wearing apparel and footwear sector. Importantly, this would not mean that the sector is expected to contract in the future,

[381] Ibid.
[382] Directive (EU) 2018/2001
[383] World Bank Group. 2018. Commodity Markets Outlook Appendix B, page 67, October. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.
[384] European Parliament resolution of 4 April 2017 on palm oil and deforestation of rainforests, available via http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2017-0098+0+DOC+XML+V0//EN

however, as this decrease is relative to the baseline scenario. Instead, a shifting of production away from palm oil and toward manufacturing of clothing and apparel is projected to occur, indicating the greater responsiveness of the Indonesian economy to the removal of trade barriers on the latter. **The estimated economic impact of the FTA between the EU and Indonesia on the oilseeds and vegetable oils industry will depend on the potential dismantlement of trade tariffs and of the restrictions on investments in this sector**. For instance, increased access to palm oil would affect EU manufacturers of processed consumer goods relying on vegetable oils and oilseeds in the production chain of their products, lowering their costs.

The CGE modelling results forecast a potential — though marginal — increase in total EU exports of 0.4 per cent in the case of the ambitious modelling scenario. This would, most likely, entail other vegetable oils and oilseeds and not include palm oil. Overall, Indonesian exports of vegetable oils and oilseeds are similarly expected to grow by relatively marginal amounts; however, given the greater importance of this sector to the economy, these increases are expected to result in approximately €100 million in additional exports. Growth in bilateral exports to the EU are estimated to be more pronounced, with the model projecting that the agreement would result in approximately €511 million in additional exports from Indonesia (see **Table 25**). As this is significantly larger than the estimated changes in overall Indonesian exports, it suggests that the agreement would largely promote diversion of Indonesia's palm oil exports away from third countries (see **Chapter 3.3**.).

Table 25: CGE Model Results Trade Vegetable Oil & Oilseeds

		Total Imports increase in mln EUR (%)		Total Exports increase in mln EUR (%)		Bilateral Exports increase in mln EUR (%)	
		Conservative	Ambitious	Conservative	Ambitious	Conservative	Ambitious
Vegetable Oil & Oilseeds	EU	233.5 (0.7)	235 (0.7)	21.5 (0.4)	20.8 (0.4)	2.2 (25)	2.2 (25)
	Indonesia	53 (1.1)	53 (1.1)	97 (0.26)	101 (0.27)	511 (21.4)	512 (21.4)

As most palm oil production occurs in developing countries with less product diversification, similar displacement in terms of EU's imports of palm oil could have negative implications for the livelihoods of palm oil farmers in third countries who rely on the EU as an export market.

At the same time, Indonesian palm oil is one of the few global commodities currently regulated by a voluntary certification scheme – in some case even multiple schemes apply. The Indonesian government sees the Indonesian Sustainable Palm Oil (ISPO) scheme as a key tool in minimising the possible social, human rights and environmental implications palm oil production might have. Increased exports to the EU without a comparable increase in Indonesia's sectoral output would imply that trade diversification may be anticipated. Third countries relying on Indonesian palm oil will thus need an alternative supplier of palm oil thereby reverting to some of the world's other palm oil suppliers who might not be producing palm oil under any certification scheme. If no global action is taken to strengthen the sustainability of palm oil production, increased production in these countries would then see a shift of the social, human rights and environmental issues Indonesia's palm oil industry currently faces – especially if the third country importers lack the political backing

– or interest – to establish trade-related certification schemes for their palm oil .An over-reliance on the EU-market could potentially also make Indonesia's palm oil production more vulnerable to EU-related market shocks, in case consumer sentiment would turn away from Indonesian palm oil specifically.

8.1.2. Social and human rights impact assessment

Baseline

The vegetable oils and oilseeds sector in Indonesia is mostly focussed on the production of palm oil, and due to its size it is an important source of income and employment for unskilled workers in rural areas and poorer segments of society. It is estimated that the palm oil industry in Indonesia employs up to 3.7 million people.[385] While concerns exist over working conditions in this sector, it also has the potential to improve the lives of the workers it employs and drive regional development. As 40 per cent of palm oil production in Indonesia stems from smallholder farmers it contributes significantly to rural development and to the livelihood of smallholder farmers in Indonesia.[386]

The high profitability of palm oil has led to the rapid expansion of plantations in Indonesia. These have resulted in disputes over land rights affecting Indonesia's most vulnerable people, including indigenous people (also see **Chapter 5.1**).[387] Forced evictions and instances of land grabbing have been recorded to clear land for growing oil palms. The root of the problem can be traced, in part, back to the democratisation period where decentralisation often led to conflicting legislation on land rights – where the customary tenure system also played a role. This lack of clarity in land ownership continues today – an ambiguity that allows for compromised access to land and resources when signed away by local authorities through palm oil concessions, oftentimes without prior consultation and consent of indigenous communities. It was estimated that by 2012 approximately half of the land-rights and land-ownership related disputes within Indonesia were related to palm oil expansion, accounting for approximately 4000 disputes nation-wide.[388] The Indonesian government is however committed to addressing the issue. Since 2013 Constitutional Court ruling (discussed in detail in **Chapter 5.1**), Indonesia's president Joko Widodo has pledged to return millions of hectares of land to indigenous communities.[389] In fact, in 2016 and 2017, the president already reallocated over 18 customary forests status to local communities.[390] Despite the government's efforts, stakeholders claim that issues with land grabbing and forced evictions persist in the palm oil sector and are likely to do so in the near future, unless government's efforts are reinforced.

Besides the issue of land rights, there are other challenges in the palm oil industry, especially in the area of labour rights. A report by SOMO mentions that workers in palm oil plantations are known to work without contracts.[391] Such workers are usually involved in harvesting and plant maintenance. There is, moreover, ambiguity regarding labour conditions on palm oil plantations. Most of the plantations are in North Sumatra and central

[385] WWF, 2012, Profitability and Sustainability in Palm Oil Production, accessed 4 September 2018 via: http://awsassets.panda.org/downloads/profitability_and_sustainability_in_palm_oil_production__update_.pdf
[386] FEDIOL, 2018, FEDIOL's Position Paper on EU-Indonesia free trade negotiations, accessed via https://www.fediol.eu/data/152119097618TRA007_FEDIOL_s%20draft%20Position%20Paper%20on%20EU-Indonesia%20FTA.pdf
[387] The European Comission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", accessed 28 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf
[388] *Ibid*, p. 77
[389] Chandra, R., 2018, With forest rights, indigenous Indonesians stave off mining, palm oil, Reuters, available via https://www.reuters.com/article/us-indonesia-landrights-lawmaking/with-forest-rights-indigenous-indonesians-stave-off-mining-palm-oil-idUSKCN1NI13T
[390] Affandi, D, 2018, No Better Time for Indonesia's Indigenous Communities to Reclaim Land Rights, World Resources Institute, available via https://www.wri.org/blog/2018/02/no-better-time-indonesias-indigenous-communities-reclaim-land-rights
[391] SOMO, 2017, Palming Off Responsibility, accessed 20 August 2018 via: https://www.somo.nl/palming-off-responsibility/

Kalimantan, where minimum wages are lower than the national average. Instances of not being paid at all have also been recorded.[392] These reports also note that the involvement of family members to support income generation is not only limited to working adults. [393] A consistently mentioned concern among stakeholders is the involvement of children working in harsh conditions in the palm oil sector. Additionally, according to stakeholders, the palm oil industry has also given rise to questions related to forced labour – often related to migrant or cross-regional workers.

Overall, the palm oil industry is an economically important sector to Indonesia, albeit vulnerable to human right and labour issues. The Indonesian Government has recognized the social and human rights issues concerning the palm oil industry and is working together with the ILO to improve working conditions in the palm oil sector. According the ILO, "*within Indonesia, there is a momentum moving towards collaborative change, which can strengthen its economic advantage in the palm oil sector in a sustainable way, improving working and living conditions of plantation workers and the image of the country's palm oil sector*."[394] With the assistance of the ILO, the government has developed a National Action Plan, which focuses on employment status; wages; social dialogue; occupational safety and health; child labour; and reinforcing labour inspection. Irrespective of the conclusion of an FTA between the EU and Indonesia, it is expected that the Indonesian Government will continue to work towards a society with strengthened land rights for indigenous people and a fair labour environment.

Liberalisation and impact analysis

The CGE modelling exercise projects that, under the prospective FTA, the output of palm oil would slightly decrease, causing some contractions of employment. As a result of the minor contraction of palm oil production, unskilled employment would decrease by 0.3 per cent whereas skilled employment would decrease by 0.1 per cent in Indonesia. Decreases of employment would be similar under the conservative and the ambitious liberalisation scenario of the modelling exercise. This may seem like a minimal decrease, however currently almost 3.7 million households are dependent on the palm oil sector in Indonesia. Slight changes in employment could have impacts on the livelihood of the poorest people working in the sector. **Given its important role for the economy and employment generation in Indonesia, a shift away from employment in this sector could be addressed through mitigating measures.**

Mitigating measures (domestic and FTA-related alike) would also need to consider the large amount of informal labour employed in the sector – namely the wives and children of plantation labourers that contribute to their daily earnings. A shift away from palm oil to other sectors may have negative effects on economic and social development, and result in significant disadvantages for smallholder farmers, as well as for the unskilled labourers employed by the industry if they are unable to move to other sectors. While the FTA can support labour rights through provisions on the ratification and implementation of ILO Conventions that secure fundamental labour rights and decent work conditions for workers, stakeholders have also suggested to consider going beyond the approach put forward in the recent agreements the EU has concluded with Canada and Japan.

[392] Amnesty International, 2016, The Great Palm Oil Scandal, accessed 21 August 2018 via: https://www.amnesty.org/download/Documents/ASA2152432016ENGLISH.PDF
[393] Ibid.
[394] International Labour Organization, "Promoting Decent Work on Oil Palm Plantation in Indonesia", 2017, available at: https://www.ilo.org/jakarta/whatwedo/projects/WCMS_624552/lang--en/index.htm

On the other hand, the projected slight decrease in output in Indonesia's palm oil production allows to conclude that the prospective FTA is not expected to have notable impacts on indigenous people's land rights in this sector.

A sustainable approach to palm oil production should not neglect the contribution that voluntary palm oil certification schemes can have on livelihoods. Promoting sustainable consumption and demand for sustainably produced palm oil, as well as private sector accountability, would then have positive socio-economic effects while positively contributing to environmental protection. This could be achieved with the help of strengthened CSR and RBC initiatives in the palm oil industry through the FTA or in parallel to the prospective FTA.

8.1.3. Environmental impact assessment

Environmental implications for the palm oil industry have raised wide-spread concern among stakeholders with regard to the prospective EU-Indonesia FTA. Concerns mainly relate to the assumption that an agreement could increase palm oil production[395] in combination with further expansion of land used for palm oil plantations – and thereby generate a scale effect. Without any technological enhancement to increase efficiency or mitigate environmental degradation –the technological effects – this would then have negative implications for the environment. Composition effects could also play a role if an FTA would give palm oil a preferential status than more sustainable alternatives, or if developments restricting palm oil would lead to greater consumption of less sustainable alternatives. Environmental concerns related to increased palm oil production range from deforestation to climate change, to loss of biodiversity – all relating to the impacts associated with conversion of high conservation value tropical rainforests into monoculture palm oil plantations.

Baseline

Environmental implications of palm oil production have been studied extensively.[396] The expansion of palm oil plantations has not only resulted in the encroaching of forests to make space for plantations, but also through indirect land-use change, with agricultural land in use for other commodities than palm oil being replaced by palm oil plantations, displacing the initial production to land previously forested. Remote sensing in Indonesia has indicated that 54 per cent of palm oil plantations in 2017 were located in areas that were covered by forestry approximately thirty years ago.[397] In light of ongoing trends, deforestation in favour of palm oil production has a high likelihood to occur in Borneo and Indonesia Papua by 2080[398], with large parts of Sumatra, Kalimantan and Java already being deforested on a large scale.

Tree cover loss in Indonesia covered more than 8.1 million hectares between 2000 and 2015, 55 per cent of this occurring within legal concessions for which palm oil accounted for approximately 1.5 million hectares of tree cover loss. The remainder of tree cover loss

[395] GCE modelling results show decrease in vegetable oils & oilseeds section under both the conservative ambitious scenario.
[396] The European Comission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", accessed 28 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf
[397] The European Comission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", p. 51, accessed 28 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf
[398] *Ibid*., p. 50

occurred by licensed concession holders cultivating beyond the allowance of their permits.[399] While difficult to estimate due to a lack of data, this loss of forestry may also be related to the large share of smallholder plantations operating unregistered outside of concessions. Nonetheless, replacing palm oil by alternative vegetable oils under current production standards does not project any mitigating consequences on the environment, merely displacing them to different geographical areas.[400]

The clearing of peat lands results in an estimated emission of up to 1550 tonnes of CO_2 emissions per hectare, in comparison to approximately 400 tonnes of CO_2 emissions for non-peat land forests. If cleared by fire, this would add an additional 207 to 650 tonnes in emissions in addition.[401] Palm oil plantations acting as a GHG sink is often argued by supporters of palm oil expansion, recent calculations however estimate that plantations on grassland or scrubland are the only ones that could actually do so.[402]

Conservation International is one of many players active in Indonesia and, in cooperation with its local counterparts, have suggested a sustainable landscapes partnership to counter environmental degradation related to deforestation and threats to existing ecosystems.[403] In the long-term this would allow for agricultural production without deforestation, and land-use under sustainable management regimes. This approach would include financing and the development of natural capital for sustainable production, with the engagement of civil society for monitoring and evaluation. Furthermore, certification schemes restricting certain illegal practices used in palm oil production, such as the RSPO and RSPO Next, the ISCC and the ISPO could also play a role in this regard.

Liberalisation and impact analysis

As detailed in **Chapter 6.1**, despite the slight output contraction expected in the sector, CO_2 emissions for vegetable oils and oilseeds in Indonesia would expand by 0.17 per cent under the conservative scenario and 0.19 per cent under the ambitious scenario – accounting for 0.007 MT for either scenario. For the EU, this would lead to decreases of 0.61 per cent in either scenario, accounting for 0.034 MT of CO_2 emissions. This would entail that for CO_2 emissions in this sector alone, reductions in the EU would outweigh increases in Indonesia if an FTA would come into place. Yet at the same time, other environmental effects are not incorporated in the CGE model, including deforestation, other GHG emissions, and biodiversity loss. **Provisions in previous FTAs that tackle environmental issues related to trade contain commitments to the effective implementation of MEAs including CITES and the Paris Agreement, an approach the EU-Indonesia FTA could consider emulating.** This could further include a commitment to continue cooperation on land-use change practices – including deforestation.

[399] WIJAYA, A., JULIANE, R., FIRMANSYAH, R., SAMADHI, T. N., & HAMZAH, H., 2017, "Drivers of Deforestation in Indonesia, Inside and Outside Concessions Areas", *World Resources Institute Blog*, accessed 28 August 2018 via: http://www.wri.org/blog/2017/07/drivers-deforestation-indonesia-inside-and-outside-concessions-areas
[400] MEIJAARD, E., GARCIA-ULLOA, J., SHEIL, D., WHICH, S. A., CARLSON, K. M., JUFFE-BIGNOLI, D., BROOKS, T. M., 2018, "Oil palm and biodiversity: a situation analysis by the IUCN Oil Palm Task Force", pp. 51 – 52, accessed 27 August 2018 via: https://portals.iucn.org/library/sites/library/files/documents/2018-027-En.pdf
[401] The European Comission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", p. 51, accessed 27 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf
[402] *Ibid*., p. 17 – 18.
[403] Conservation International, 2017, "Sustainable landscape approach", accessed 28 August 2018 via: https://www.conservation.org/publications/Documents/CI-Science-to-Policy-Sustainable-Landscape-Approach.pdf

To anticipate the increase of land areas converted to palm oil plantations, the agreement could consider including measures to ensure palm oil plantation are sustainably managed and without environmental risk. For instance, consideration could be given t**o continuing the application of a robust certification scheme and strengthen palm oil smallholder capacity to adopt sustainable practices in the management of palm oil production could be considered.**

8.2. Fisheries

8.2.1. Economic impact assessment

Baseline

As the world's largest archipelago, Indonesia is the world's second largest producer of fish, crustaceans and aquatic plants by volume.[404] The EU, on the other hand, is the world's largest import market for fishery products, accounting for approximately 25 per cent of the global export demand. Therefore, the EU could be a very relevant market for the Indonesian fishing industry.[405]

There is space for increased bilateral trade in fisheries, in 2016 the total amount of EU fisheries imports from Indonesia was worth approximately €374 million (which is only 1.6 per cent of total EU fisheries imports). Currently, EU imports from Indonesia in the fisheries sector are mostly frozen shrimps and other fish like tuna and skipjack.[406]

The leading destinations for EU fisheries exports (in value) are the US, Norway, Switzerland and China. EU exports towards Indonesia has been limited, reaching only €3 million in 2017. The certification and sustainability of fisheries is becoming increasingly important for the EU, as reflected in its Common Fisheries Policy which aims to achieve sustainably exploited fisheries by 2020.[407]

For Indonesia, the maritime and fishery industry has become increasingly important over recent years, and President Widodo doubled the budget of the responsible ministry in 2015. Aquaculture is projected to double from 2015 rates by 2030, overtaking fisheries as the main source of consumable fish to 10.1 million metric tonnes per year.[408] Here, especially grouper and shrimp are anticipated to witness growing demand, leading to increases in revenues per unit of volume. However, an important hurdle for increased Indonesia trade in fisheries besides tariff barriers is the export quality infrastructure (EQI) requirement. Indonesia's capacity to meet EU standards on import and the certification of products and management systems is still lacking.[409]

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[404] European External Action Service, 2017, European Union; Trade and Investment with Indonesia 2017, accessed via https://eeas.europa.eu/sites/eeas/files/hh0417743enn2.pdf
[405] Ibid.
[406] German-Indonesian Chamber of Industry and Commerce, 2017, EIBN sector reports Fisheries and aquaculture, available at http://indonesien.ahk.de/fileadmin/ahk_indonesien/Publications/EIBN/Fisheries_and_Aquaculture_Sector_Report_2017_FULL.pdf
[407] OECD, TRADE AND AGRICULTURE DIRECTORATE FISHERIES COMMITTEE, OECD Review of Fisheries 2017, available at https://one.oecd.org/document/TAD/FI(2017)14/FINAL/en/pdf
[408] WorldFish, 2015, "Exploring Indonesian aquaculture futures", p. 4, accessed 13 December 2018 via: http://pubs.iclarm.net/resource_centre/2015-39.pdf
[409] Montague Lord, Rina Oktaviani, Edzard Ruehe "Indonesia's Trade Access To the European Union: Opportunities and Challenges" European External Action Service, http://eeas.europa.eu/archives/delegations/indonesia/documents/press_corner/tradeaccess_report_en.pdf

The EU has thorough food laws and standards in place to implement the principles of quality management and process-oriented controls throughout the whole food chain. The EU food regulations can sometimes be too complex for developing country exporters, especially for SMEs and thus pose a challenge for their exports. According to an UNCTAD research paper on Fish Trade and Policy, the EU would apply 10 different NTMs types to most fish imports, including geographical restrictions, tolerance limits, labelling requirements, packaging requirements, hygienic requirements and 4 different types of measures imposing some conformity assessment.[410] Given the fact that the EU is the biggest importer of fish in the world, this could have impacts on trade for many countries. The import rules for fisheries and aquaculture products are harmonized so they apply the whole of the EU.[411] Fishery and aquaculture products imported by the EU need to come from a country authorized by the Directorate-General for Health and Consumer Protection. Also, all fishery products placed on the EU market must be caught by approved vessels or produced in registered farms and be accompanied by a proper health certificate assuring that they meet the EU food safety standards.[412] Food safety certification could be necessary for specific countries.[413]

In 2014, the Director General of Fishery Product Processing and Marketing of Indonesia issued a decree stating new rules for the importing of fisheries into Indonesia.[414] The new rules stipulated that for imports of fisheries to be eligible, the species cannot be available in Indonesian waters, nor be produced within Indonesia. These species can only be imported when there is a shortage due to seasonality or when domestic supplies are not satisfactory.[415]

Without the conclusion of an FTA, the export of fisheries from Indonesia towards the EU will most likely increase, but less than with the implementation of an FTA, as bilateral exports of fisheries products are expected to increase under the CGE modelling results. The EU demand for imported fisheries products is expected to remain high, and future improvements in Indonesia's sustainability standards for fisheries could create further demand. It is important to note that, without an FTA, the current tariffs on EU imports of fisheries products will most likely stay in place. However, Indonesia's exports of fisheries products would still qualify under the EU GSP scheme.

Liberalisation and impact analysis

The results from the study's economic modelling suggest that the agreement would likely have a minimal impact on the fisheries sectors in the EU and Indonesia. Overall, the model projects slight changes in the total exports, imports and output of fresh and chilled fisheries products for the EU as well as for Indonesia, together with marginal increases in bilateral trade of such products (see **Table 26**). Overall, Indonesia's fish production is expected to slightly expand.

[410] Ibid
[411] European Commission, EU import conditions for seafood and other fishery products, available via https://ec.europa.eu/food/sites/food/files/safety/docs/ia_trade_import-cond-fish_en.pdf
[412] CBI, 2018, What requirements should your product comply with to be allowed on European markets?, Ministry of Foreign Affairs of the Netherlands, available via https://www.cbi.eu/market-information/fish-seafood/buyer-requirements
[413] Ibid.
[414] Director General of Fishery Product Processing and Marketing, 2014, Number 125/KEP-DJP2HP/2014, Ministry of Marine Affairs and Fishering of Indonesia, available via http://extwprlegs1.fao.org/docs/pdf/ins139989.pdf
[415] USDA Foreign Agricultural Service, 2015, Indonesia Revises Seafood Import Rules, available via https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Indonesia%20Revises%20Seafood%20Import%20Rules_Jakarta_Indonesia_1-13-2015.pdf

This outcome is not, however, surprising given the fact that the CGE model's sectoral aggregation for fisheries products includes only live, fresh and chilled seafood. Given the wide geographic distance, difficulties arise with ensuring that these products could effectively reach the EU market. **Instead, most fisheries products traded bilateral would be expected to be concentrated in frozen and processed products.** The problem with using the CGE model for understanding the impact on the fisheries sector is that these products are all included under the separate aggregation of "processed foods", which includes an extremely diverse set of products. Thus, the CGE model might not accurately depict the expected changes in the fisheries sector.

Table 26: CGE Model Results for Trade in Fishing and Processed Foods

		Total Imports increase in mln EUR (%)		Total Exports increase in mln EUR (%)		Bilateral Exports increase in mln EUR (%)	
		Conservative	Ambitious	Conservative	Ambitious	Conservative	Ambitious
Fishing	EU	1.4 (0.04)	2.9 (0.1)	0.2 (0.01)	0.4 (0.02)	0.17 (11.8)	0.17 (11.8)
	Indonesia	0.72 (1.1)	0.72 (1.1)	-9 (-0.69)	-8.7 (-0.65)	1.4 (5.2)	2.9 (10.8)
Processed Foods	EU	244 (0.6)	249 (0.6)	122 (0.2)	116 (0.2)	119 (39)	119 (39)
	Indonesia	134 (3.3)	136 (3.3)	194 (2.3)	195 (2.3)	254 (28)	254 (28)

Trade statistics show that processed fish accounts for most of the Indonesia's trade with the EU in fisheries products (see **Table 27**). As bilateral exports in the processed food sector are expected to increase significantly, it can thus be expected that exports of processed fish products from Indonesia to the EU would also increase, albeit the degree of this is not known. However, the CGE modelling results only show an increase of 0.3 per cent (€289 million) in output in the processed food sector, meaning that the FTA would not be expected to significantly increase Indonesia's production of processed food, including processed fish.

Table 27 Trade Value of Bilateral Indonesia-EU Trade for Processed Fish [416]

Year	Indonesian Export to EU Value (US$)	Indonesian Import from EU Value (US$)
2011	383.415.401	3.430.811
2012	320.498.704	4.288.834
2013	392.580.789	2.202.599
2014	462.118.973	2.500.617
2015	366.857.743	1.380.550
2016	394.080.141	8.710.493
2017	348.931.362	2.017.726

[416] The following HS Codes were interpreted as Processed Fish: HS03270, HS0303, HS0304, HS0305, HS030611, HS030612, HS030613, HS030614, HS030619, HS030729, HS030739, HS030749, HS030759, HS030799, HS1604 and HS1605. However, because not every HS code value was registered annually in COMTRADE, both for Indonesia export to and import from the EU, the HS codes were used that were registered every year between 2011 and 2017. This means for Indonesia export in processed fish towards the EU HS codes HS03270, HS0303, HS0304, HS0305, HS030613, HS030614, HS030619, HS030729, HS030749, HS030759, HS030799, HS1604 and HS1605 were used. For Indonesia import from the EU in processed fish HS codes HS0303, HS030613, HS030614, HS1604 and HS1605 were used. Therefore, the values in the table represent a reliable sample of the total processed fish value.

Source: UN Comtrade

As the fisheries sector remains an important industry for Indonesia, there may be considerable scope for the prospective EU-Indonesia FTA to increase bilateral fish products exports over the long-term, dependent also on the degree of elimination of the NTMs that are currently impeding both parties achieving their maximum potential in the fisheries sector. Moreover, Indonesian producers may not always be able to comply with EU food safety standards. To this end, under the agreement or in the wider partnership cooperation and technical dialogue between the two sides could be further promoted, facilitating Indonesian exports to the EU market through the strengthening of food safety testing and data collection.

8.2.2. Social and human rights impact assessment

Baseline

The fishing industry is very important for the Indonesian economy, especially in terms of employment. According to official statistics, more than 2.7 million people were working in the fishing sector in Indonesia in 2015.[417] Projections for aquaculture specifically estimate 15 million full-time jobs by 2030.[418] These numbers could be even higher because the industry relies heavily on informal and undocumented labour. This brings about several risks for workers in the fishing sector, including the fact that they are rarely protected by labour laws that apply to formal employment. Another result of this is that the wages can be very low in this sector in Indonesia.

Three categories of industrial fishing are identified in Indonesia: jermal fishing[419], boat fishing, and blast fishing. Blast fishing, due to its environmental degradation effects is an illegal form of fishing, but according to the stakeholders, due to lack of monitoring still takes place. In the case of small boat fishing, fishers are paid by the day, but higher status workers such as admirals are paid on a bonus system, depending on the volume of the catch[420]. This reportedly incentivises admirals to induce fishers to work longer hours and fulfil more difficult targets, even though the latter do not share in the reward of a higher volume catch. At the same time, if a trip is unsuccessful and no fish (or a low volume of fish) is caught, the workers may not receive their daily payment[421]. Wages for workers who work in in blast fishing are extremely unpredictable and based on the volume of catch.

Labour rights are considered to still to be an issue of concern in the Indonesian fishing industry due to the large number of undocumented workers that operate in the industry. A lack of access to capital and to social protection systems puts workers at risk of exploitation. Therefore, many fishers live in extreme poverty, and have no access to formal credit. The ILO has identified fishing as one of the most hazardous types of work.[422] Workers

[417] OECD statistics on employment in the fishery industry, available at https://stats.oecd.org/Index.aspx?DataSetCode=FISH_EMPL

[418] WorldFish, 2015, "Exploring Indonesian aquaculture futures", p. 10, accessed 13 December 2018 via: http://pubs.iclarm.net/resource_centre/2015-39.pdf

[419] The jermal is a fishing platform at a distance of 15-25 km from the shore, about third of the platform is occupied by a house, where fishermen can cook and store fish.

[420] Verite, Research On Indicators Of Forced Labor in the Supply Chain of Fish in Indonesia: Platform (Jermal) Fishing,Small-Boat Anchovy Fishing, and Blast Fishing, available at: https://www.verite.org/wp-content/uploads/2016/11/Research-on-Indicators-of-Forced-Labor-in-the-Indonesian-Fishing-Sector_9.16.pdf

[421] Ibid

[422] FAO-ILO, 2011, Good Practice Guide for Addressing Child Labour in Fisheries and Aquaculture: Policy and Practice, accessed 23 August via: ftp://ftp.fao.org/FI/DOCUMENT/child_labour_FAO-ILO/child_labour_FAO-ILO.pdf.

oftentimes lack contracts and little to no benefits (such as money to cover medical bills from injuries sustained while fishing) are given at the discretion of the admiral or boat owner. Additionally, child labour is also reported in fishing sector[423].

It has been reported that human rights abuses are also prevalent in the fishing industry, particularly in the processing segment of the supply chain. Women, who form a large proportion of the workers employed in processing units, are particularly vulnerable to poor work conditions in this field. In an investigation conducted by Oxfam, interviewees claimed that at in one processing plant, thousands of workers – 80 to 90 per cent of them women – were contracted through outsourcing companies.[424] Employing workers in such a way allows companies to limit their responsibilities towards those workers. Under such a contract, employment is precarious.

Despite the current lack of regulatory checks in the sector, the Indonesian Minister of Marine Affairs and Fisheries is committed to making the UN Guiding Principles on Business and Human Rights (UNGPs) a reality in the fishing sector. Indonesia has mandated human rights certification in the seafood industry. The *Ministerial Regulation on Fisheries Human Rights Certification Requirements and Mechanism*, which requires vessels to have a human rights policy, means of due diligence and a remediation system for cases of violation, was signed in 2015. In 2017, the certification mechanism – which involves detailed reports about workers' wages, contracts, freedom from coercion and other conditions – was launched. The ratification, in 2017, of the ILO Maritime Labour Convention was a significant step that demonstrated the commitment of the government to protect Indonesian vessel workers.

Liberalisation and impact analysis

According to the projections of the CGE model for Indonesia, a 0.33 per cent decline in unskilled employment and 0.14 per cent decline in skilled employment in the sector are expected under the conservative modelling scenario. A 0.37 per cent decline in unskilled employment and a 0.16 per cent decline in skilled employment are expected under the ambitious scenario. The decrease of employment is projected to happen despite the slight increases of Indonesia's output of fishery products foreseen under both the conservative and the ambitious modelling scenario. Increased automation and more efficient catch and production processes could potentially contribute to the decrease in employment.

While the fisheries sector provides low quality jobs and often presents poor working conditions and labour and human rights violations, these jobs continue to be crucial sources of income for some of the most vulnerable in society – including women, the mentally disabled, the poorly educated and low skilled sections of the work force. **Therefore, concerns remain about the economic prospects of those who will not be absorbed by the sector under the prospective FTA.** Considering their vulnerable status, those who are not able to continue working in fisheries sector may be unable to find other sources of livelihood, stressing the need for appropriate education and re-training programs in the country.

On the other hand, as explained in the economic section above, the CGE modelling is unable to show employment changes in the fish processing sector, which also offers jobs to many

[423] Ibid
[424] Oxfam, 2018, Supermarket Responsibilities for Supply Chain Workers' Rights. Accessed 20 August 2018 via: https://www.oxfamamerica.org/static/media/files/Supermarket_Responsibilities_for_Supply_Chains_Rights_report.pdf

people in Indonesia. As the food processing sector is expected to expand (in terms of output and employment), more employment opportunities might arise in the fish processing industry.

From a labour and human rights perspective, in view of the expected decrease in employment, the prospective FTA would not lead to an increase in the number of workers in a vulnerable human rights situation in the sector, though concerns remain about the fish processing sector. Overall, the prospective FTA could provide an additional channel to addressing social and human rights issues in the industry.

8.2.3. Environmental impact assessment

Baseline

Unsustainable fishing practices remain commonplace in Indonesia, degrading marine habitats and decreasing fishing populations in the process. Marine protected areas form part of Indonesia's strategy to protect ecosystems, maintain biodiversity and restore degraded habitat.[425] By 2013, there were 131 marine protected areas accounting for nearly 16 million hectares[426], with policy objectives aiming to expand this to 20 million hectares by 2020, or 6.5 per cent of its territorial waters.[427] Stakeholders are concerned that the lack of a national approach results into insufficient capacity, expertise and anti-corruption measures to ensure enforcement and compliance.

The usage of poison to catch lobsters and groupers, trawlers to catch prawns, and explosives to catch snapper, rabbitfish, grouper, fusilier, triggerfish, and surgeonfish among others, has been shown to have far-reaching environmental consequences.[428] Furthermore, sharks are caught in alarming rates, with Indonesia accounting for thirteen per cent of global shark catches in 2012. These are often caught as by-catch, but the export of shark fins is perceived by stakeholders as an additional factor explaining this large quantity.[429] Shark finning often happens on board after which the body is thrown back as the price for shark meat is estimated to be worth only €1.55 per kilo, compared to up to €186 per kilo of shark fins.[430] Nation-wide banning of shark finning is not in place, but in some areas – including in West Papua – bans have been enabled since 2010. Trade controls of certain species through their inclusion on CITES – among others whale sharks – has further limited the export of fins, but compliance cannot always be ensured as the finning happens at high

[425] DUNNING, K. H., 2016, "Guest Post – Kelly Heber Dunning: Locally Managed Marine Protected Areas in Indonesia. Helping local people and ecosystems", *Conservation Watch*, accessed 29 August 2018 via: http://www.conservation-watch.org/2016/10/12/guest-post-kelly-heber-dunning-locally-managed-marine-protected-areas-in-indonesia-helping-local-people-and-ecosystems/

[426] Directorate for Conservation of Area and Fish Species, "Management Effectiveness of Marine Protected Areas in Indonesia: Progress and Present Status" accessed 29 August 2018 via: https://www.worldparkscongress.org/wpc/sites/wpc/files/sessrep/228_5_Indonesia-Management%20Effectiveness%20of%20Marine%20Protected%20Areas.pdf

[427] YULIANTO, I., et al, "Spatial analysis to achieve 20 million hectares of marine protected areas for Indonesia by 2020", *USAID*, accessed 29 August 2018 via: https://indonesia.wcs.org/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=15154&PortalId=137&DownloadMethod=attachment

[428] WWF, "Seafood Guide", accessed 29 August 2018 via: https://www.wwf.or.id/en/about_wwf/whatwedo/marine_species/how_we_work/campaign/healthy_seas_healthy_seafood/seafood_guide/

[429] ClientEarth, 2018, "Improving the proposed forestry provisions in the EU-Indonesia FTA", pp. 10 – 11, accessed 27 August 2018 via: https://www.documents.clientearth.org/library/download-info/improving-the-proposed-forestry-provisions-in-the-eu-indonesia-fta/

[430] *Ibid*., P. 11

seas. The mislabelling of shark fins as "frozen fish" has similarly occurred, thereby by-passing customs clearance.

Part of the problem is linked to IUU, where foreign fishing vessels also use unregulated fishing techniques that would contribute to overfishing and resource depletion. However, the current administration has taken a strong interest in addressing concerns on environmental degradation in this sector, and the long-term implications these might have on its viability. Local communities have become more engaged in the co-managing of Marine Protected Areas, and fish populations in protected areas are rapidly increasing. Estimates for skipjack tuna specifically suggest that if no policy to fight against IUU had been implemented, its population would drop by 59 per cent by 2035, resulting in a profit-loss of 64 per cent in the same year.[431] The effects of IUU on the environment also arises through abandoned fishing gear, fishery waste thrown overboard, as well as general waste – including plastic. In line with the government's wide aim to combat marine plastic, the Indonesia Ocean Trust Fund – managed by the World Bank – aims to reduce plastic waste in most water bodies.[432]

The rapid expansion of a properly regulated domestic fishery industry could mitigate environmental challenges currently posed by unregulated and illegal vessels. It is estimated that over 3000 small fishing vessels[433] are under construction for the local market and nearly 14.000 sets of fishing gear will be distributed to local fishermen by end-2019. Only five per cent of Indonesia's fisheries is non-small-scale, and regulation among these is difficult considering Indonesia's decentralized government structure and the remoteness of local fishing communities. With approximately 1/5th of the produce caught in Indonesia being caught illegally, the government's ability to regulate these fishing vessels will remain a crucial element to mitigate potential environmental concerns.

The MMAF Strategic Plan 2015-2019 includes the objectives of increased production and revenue but only informally accounts for sustainability initiatives. At the same time, it should be noted that Indonesia has taken steps in its policy objectives to reduce negative environmental impacts from fishing activities on its marine resources. This includes the prohibited use of certain fishing equipment proven to have environment implications, including the so-called *Cantrang* - a seine net harmful to coral reefs.[434] While initial resistance of the local communities existed against these types of directives, the government has often committed to provide new equipment for small-scale fishers, while larger vessels can apply for subsidised loans to support acquisition of replacement material.

Liberalisation and impact analysis

Stakeholders suggested that data sharing mechanisms can be used to track fishing stocks,[435] and that the issue of by-catch is worrisome. This hampers fish populations, limiting the long-term potential for the fishing industry to provide income for coastal communities. As trade between both parties in the fisheries sector focuses on frozen and

[431] GOKKON, B., 2018, "Indonesia's crackdown on illegal fishing is paying off, study finds", accessed 29 August 2018 via: https://news.mongabay.com/2018/04/indonesias-crackdown-on-illegal-fishing-is-paying-off-study-finds/
[432] Norway in Indonesia, 2018, "Norway and Indonesia are fighting marine debris together", accessed 29 August 2018 via: https://www.norway.no/en/indonesia/norway-indonesia/news-events/news2/norway-and-indonesia-are-fighting-marine-debris-together/
[433] Ibid.
[434] "Cantrang ban final: Susi", *The Jakarta Post,* 2017, accessed 29 August 2018 via: http://www.thejakartapost.com/news/2017/07/12/cantrang-ban-final-susi.html
[435] ClientEarth, 2018, "Improving the proposed forestry provisions in the EU-Indonesia FTA", p. 19, accessed 27 August 2018 via: https://www.documents.clientearth.org/library/download-info/improving-the-proposed-forestry-provisions-in-the-eu-indonesia-fta/

processed products, the exact implications of the FTA as per the CGE model are difficult to pinpoint. Instances of IUU, pollution or overexploitation cannot be specified with accuracy either.

The EU recent FTAs include dedicated provisions to enhance the sustainable management of fisheries including with regard to the fight against IUU. For example, the TSD Chapter in the EU-Mexico agreement includes provisions on the exclusion of IUU products from trade in the fisheries sector. A similar approach could be replicated for the prospective EU-Indonesia FTA. Stakeholders highlighted the importance of introducing a traceability scheme throughout the value chain as a valuable tool, allowing a better understanding of the type and origin of products being traded. Technical expertise and capacity strengthening of the Indonesian catch certification scheme *(Sertifikasi hasil Ikan Tangkap*) could help to ensure compliance and to avoid malpractices. Further **cooperation of both parties considering the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, which both parties have ratified, could be taken into consideration to further reduce the risks of IUU activities.**

8.3. Energy and Mining

8.3.1. Economic impact assessment

Baseline

Indonesia is rich in natural resources. The country has large deposits of oil (27th largest in the world); natural gas (15th largest); coal (10th largest); gold (5th largest); lead (2nd largest); as well as copper, nickel, tin, iron, bauxite and silver. For Indonesia, the production of oil has become less important in recent years, while domestic demand has increased. This has made the country a net importer of oil. The mining sector, however, has been growing rapidly since 2001 and has tripled exports since then. Especially in nickel (approximately 60 per cent of global exports) and bauxite (70 per cent of global exports) the country has taken a leading trade role within the global economy.

The EU's economic interest in the energy and mining sectors is partly due to the need for continuing and reliable access to natural resources that support the internal market. Currently, the key issues that EU operators are facing in this sector in Indonesia are the investment restrictions in place. For oil and gas extraction, investment restrictions include prohibitions on the engagement of certain activities or in equity caps on foreign ownership. The DNI list of the Indonesian government prohibits foreign companies' engagement in onshore drilling and various oil and gas construction services, while limits on foreign equity stakes are placed on offshore drilling (75 per cent foreign ownership), oil and gas survey services (49 per cent) and on various other oil and gas construction services.

Possible further investment restrictions on the mining sector are potentially impactful. EU investors are concerned about the regulatory framework following the introduction of the Mining Law in 2009. Most stakeholders have mentioned concerns regarding issues of (i) requirements for foreign owners to divest shares over time to a minority share position of 49 per cent; (ii) the introduction of domestic processing and refining requirements; and (iii) export restrictions on unprocessed minerals. These regulations, driven by domestic concerns, have resulted in a high degree of legal uncertainty and inconsistency. This has, in turn, led to a decrease of foreign investment in Indonesia's mining sector.

Indonesia's reported distrust towards foreign companies operating in the mining sector could in part reflect the fact that it has been the industry with the most disputes under ISDS mechanisms. One example of this is the Newmont investment claim. After Indonesia revised its mining law in 2009 to reduce dependence on the export of raw materials, limiting foreign ownership possibilities, two mining corporations took action.[436] Freeport-McRoran decided to settle for the reduced export tax instated by the Indonesian government to appease the corporations, but Newmont decided to close down their Indonesian operations and in 2014, filed a claim against Indonesia at ICSID. Newmont later withdrew the claim when Indonesia offered it more favourable conditions. For a more detailed discussion see **Chapter 7.1**.

Recently Indonesia has seen an emerging interest in its renewable energy sector. However, for renewable energy projects, land acquisition is very important. This has been an issue in instances where local populations have expressed concerns over companies being granted control over local land rights. Further, the bureaucratic procedures for investing in the energy sector are lengthy and unclear. To be able to attract foreign expertise, knowledge and technology in this field Indonesia needs to address these issues. Other obstacles in place for European companies to invest in the sector include the low power purchase prices in Indonesia which limit expected return on investments.[437] The dominance of SOE Perusahaan Listrik Negara (PLN) in the field of electricity distribution is another major obstacle for energy companies wanting to invest in Indonesia.[438] Some stakeholders mention that PLN would have been actively steering government policies to benefit their stakes in the fossil fuel industry creating uncertainty for other companies. The Indonesian government also subsidizes the fossil fuel industry favouring coal and fossil fuels over renewable energy.[439]

Liberalisation and impact analysis

There are several ways in which the FTA could impact the energy and mining industry in both Indonesia and the EU, including the inclusion in the FTA of provisions on Energy and Raw Materials[440], and further liberalisation of investment in the energy sector in Indonesia.

In the factsheet on the proposed text of the energy and raw materials chapter in the FTA, it is stated that the EU aims to achieve three goals through its FTA with Indonesia: greater transparency, improvements to market access and promotion of trade in sustainable energy goods.[441] Even if subject to modifications as the negotiations progress, the EU text proposal does offer a good reference point from which to assess potential impacts.[442]

[436] Knottnerus, R. et al (2018) The EU-Indonesia CEPA negotiations. Responding to calls for an investment policy reset: are the EU and Indonesia on the same page, SOMO, TNI, Indonesia for Global Justice.
[437] Damuri, Y.R., Pricing Practices in Indonesia's Electricity Power Services, Policy Researh paper prepared for the Indonesia Services Dialogue, available via https://apindo.or.id/userfiles/publikasi/pdf/Pricing_Practices_in_Electricity_Services_-_Indonesia.pdf
[438] Bridle, R. et al, 2018, Missing the 23 Per Cent Target: Roadblocks to the development of renewable energy in Indonesia, GSI Report, IISD, available via https://www.iisd.org/sites/default/files/publications/roadblocks-indonesia-renewable-energy.pdf
[439] Ibid.
[440] European Commission, provisions in relation to trade in goods already included in the EU test proposal for the trade in goods chapter, accessed on 27 July 2018 via http://trade.ec.europa.eu/doclib/docs/2017/september/tradoc_156108.pdf
[441] European Commission DG TRADE, EU Proposal on Energy & Raw Materials, accessed on 6 August 2018 via http://trade.ec.europa.eu/doclib/docs/2017/september/tradoc_156116.pdf
[442] European Commission DG TRADE, Report of the 5th round of negotiations for a Free Trade Agreement between the European Union and Indonesia, accessed on August, 2018 via http://trade.ec.europa.eu/doclib/docs/2018/july/tradoc_157137.pdf

On the basis of this proposal, it is expected that the FTA will include provisions to further reduce distorting measures on trade and investment in energy and raw materials; on future exchange of market data and exchange of research, development and innovations in the areas of energy efficiency, renewable energy and raw materials; on promoting the upholding of the high standards of safety and environmental protection for offshore oil, gas and mining operations[443];and on the development of common standards for energy efficiency and renewable energy, including knowledge exchange.

The possible impacts of the liberalisation of the energy and mining sector can also be found in the CGE model results. The sectoral aggregations included in the model that would fall into this sector are Fossil fuels and Other minerals (see results for trade in **Table 28**). According to the results, both fossil fuels and the other minerals products are not projected to experience notable impacts as a result of a reduction of tariffs and non-tariff barriers under the agreement.

Specifically, the model projects less than 0.1 per cent change in output of these products in both Indonesia and the EU. More specifically, the EU would see minor decreases in output of fossil fuels and minor increases of output of other minerals, while Indonesia would experience minor decreases in output of other minerals. Similarly, marginal changes are expected to arise in overall and bilateral trade. As such, the extent of the impact on energy and mining is expected to be driven by non-tariff related elements of the agreement – particularly, with respect to investment. To this end, the agreement could promote greater Indonesian output and exports through its ability to remove restrictions on foreign investment in the sector. Under such a scenario, increased EU investment in Indonesia's oil and mining industry could have significant direct impacts for EU mining enterprises, while also having additional benefits for downstream sectors reliant on minerals produced in Indonesia. Economic impacts of the ambitious liberalisation scenario, eliminating restrictions on EU company ownership in the energy and mining industry, would likely include increases in EU investment and revenue for firms operating in the sector.

Table 28: CGE Model Results for Trade in Fossil Fuels and Other Minerals

		Total Imports increase in mln EUR (%)		Total Exports increase in mln EUR (%)		Bilateral Exports increase in mln EUR (%)	
		Conservative	Ambitious	Conservative	Ambitious	Conservative	Ambitious
Fossil Fuels	EU	110 (0.01)	136 (0.02)	14 (0.01)	6.5 (0.01)	39 (18.5)	39 (18.5)
	Indonesia	127 (0.2)	132 (0.26)	-106 (-0.14)	-100 (-0.13)	-0.7 (-0.08)	-0.6 (-0.06)
Other Minerals	EU	42 (0.04)	50 (0.05)	7.9 (0.01)	2.2 (0)	23 (18.2)	23 (18.2)
	Indonesia	35 (1.1)	36 (1.1)	-77 (-0.31)	-67 (-0.28)	7.9 (0.8)	7.9 (0.8)

For Indonesia, increased FDI arising from the FTA could result in beneficial economic outcomes. These benefits could extend to renewable energy, which may also capitalise on improved access to EU expertise and technology.

[443] European Commission, provisions in relation to trade in goods already included in the EU text proposal for the trade in goods chapter, accessed on 27 July 2018 via http://trade.ec.europa.eu/doclib/docs/2017/september/tradoc_156108.pdf

8.3.2. Social and human rights impact assessment

Baseline

During the stakeholder consultation process, stakeholders have mentioned that mining activities have been associated with land-grabbing and displacement of local communities and that this has caused pollution and impacted on the rights of indigenous peoples, with secondary effects concerning their right to food and the right to health. These are presented in more detail below:

Right to food: Some mining activities have had negative impact on the right to food in Indonesia. For example, farmers in Kerta Buena have reported that wastewater from coal mining activities has leaked into rice paddies and polluted harvests. Acid mine drainage across Borneo has been known to kill fish in aquaculture operations. Farming communities, which are often located near to coal mines, have no option but to contend with the coal dust that routinely coats crops and seeps into their homes.[444] In Samarinda, farmers and residents have stated that open-pit coal mining has drained water tables — essential for rice farming — because of the large amounts of water used in the mining process. The East Kalimantan's environmental agency has attributed declining water quality and a large-scale die off downstream fauna to water transport and wastewater discharges into the river. These activities are dominated by the local coal industry.[445]

Right to health: An investigation led by Greenpeace shows that hazardous waste from intensive, largely unregulated coal mining activities is contaminating streams and rivers, and in many cases breaching national standards for mine wastewater.[446] The investigation, focusing on the province of South Kalimantan, revealed that a third of South Kalimantan has been allocated to coal mining. Because of this, hazardous discharges of acid mine waste containing iron, manganese and aluminium, among other heavy metals and toxins, are reaching South Kalimantan's water bodies and surrounding environment. Approximately 45 per cent of all rivers in the province are downstream from coal mines. People in the neighbouring and downstream communities, thus, are at risk of using contaminated water to wash, cook and farm. This can potentially have an adverse impact on people's health and food security. Mercury poisoning, which has significant detrimental and long-lasting effects, is increasingly being reported in mining communities.[447]

Rights of Indigenous and Local Communities, and Land Rights: SOMO has reported that local government officials issue mining permits that lead to the dispossession of indigenous lands and that, in the absence of effective legal remedies, land conflicts between farmers and plantation owners, mining companies, and developers are common across the country, as local and foreign companies are able to seize land used by indigenous people in accordance with their customs. Issuing of mining licenses have resulted in land grabbing

[444] Yale Environment 360, 2015, Indonesian Coal Mining Boom Is Leaving Trail of Destruction, accessed 28 August 2018 via: https://e360.yale.edu/features/indonesian_coal_mining_boom_is_leaving_trail_of_destruction
[445] Ibid.
[446] Greenpeace, 2014, Revealed: Coal Mines Polluting South Kalimantan's Water accessed 29 August 2018 via: https://www.greenpeace.org/seasia/id/PageFiles/645408/FULL%20REPORT%20Coal%20Mining%20Polluting%20South%20Kalimantan%20Water_Lowres.pdf
[447] Pulitzer Center, 2016, Mercury Poisoning Among Indonesian Mining Communities, accessed 28 August 2018 via: https://pulitzercenter.org/reporting/mercury-poisoning-among-indonesian-mining-communities

and displacement of the indigenous communities that occupy these lands.[448] Deforestation, as an outcome of mining (reference environmental impacts section), also has an adverse effect on the livelihoods of local and indigenous communities that have traditionally lived off the natural land resources.

Rights of Children: There are limited cases of the use of child labour reported in mining sector in Indonesia. However, it has been noted that children are engaged in hazardous work in informal tin mines of Bankga-Belitung Province.[449],[450] Child labour in such dangerous conditions severely threatens the well-being of children.

As the Indonesian Government is committed to eradicating child labour, improving the right to food and right to health, social and human rights situation in the country in the mining sector are thus also expected slowly improve.

Liberalisation and impact analysis

According to the results of the CGE model, the mining and energy sectors in Indonesia are not likely to see significant changes with respect to output or employment in comparison to the baseline. Output in the fossil fuels sector and other minerals sector in the conservative modelling scenario is expected to see a minor decline. Under the ambitious scenario, however, fossil fuels sector could experience minor increase, while other minerals sector would still decrease.

In terms of employment, Indonesia's fossil fuels sector would see a minor decline in unskilled jobs and 0.5 per cent decline in skilled jobs. The other minerals sector would, on the other hand, see minor decreases in skilled jobs and 0.5 per cent decrease in unskilled jobs under both conservative and ambitious modelling scenario. The mining sector in Indonesia employs about 1.4 million people[451] and thus decrease in employment can have a slight social impact in the sector as unskilled people could have difficulties finding employment. However, the CGE modelling does not give a complete overview of the changes in the mining sector as an agreement on investments and NTBs could affect the results.

The extent to which the prospective FTA can facilitate the defining of land rights and combat mal-practices involved in allocating land to corporations is unclear. National and private companies that work in the mining sector in Indonesia would be in the best position to bring about a positive change in the sector through improving industry practices. As such, stakeholders have suggested that: (1) issues related to ensuring that land concessions are obtained in the most just way possible to mitigate the possible violation of land rights and the right of indigenous peoples should be addressed; (2) provisions to raise working conditions and promote occupational health and safety in the sector can play a role in alleviating negative health effects that mining communities face due to exposure to harmful substances; (3) the FTA should also include enforcement mechanisms that help to ensure that the international conventions and laws Indonesia has adopted are enforced.

[448] SOMO, 2017, Human Rights as a Key Issue in the Indonesia-EU Comprehensive Economic Partnership Agreement, accessed 28 August 2018 via: https://www.somo.nl/wp-content/uploads/2017/09/Briefing-paper-CEPA.pdf
[449] ILO-IPEC, 2014, Sectoral survey of child labour in informal tin mining in Kepulauan Bangka Belitung Province, Indonesia, accessed 14 August 2018
via: http://www.ilo.org/ipec/Informationresources/WCMS_IPEC_PUB_27535/lang--en/index.htm.
[450] Hodal, K. "Samsung admits its phones may contain tin from area mined by children." The Guardian, April 25, 2013; https://www.theguardian.com/environment/2013/apr/25/samsung-tin-mines-indonesia-child-labour.
[451] Statistics Indonesia, via: https://www.bps.go.id/statictable/2009/04/16/970/penduduk-15-tahun-ke-atas-yang-bekerja-menurut-lapangan-pekerjaan-utama-1986---2018.html

From a human rights perspective, in view of the slight decline projected in output and employment in the mining and energy sector the FTA is not expected to have notable human rights impacts in this sector.

Further, some stakeholders have recommended that the **prospective FTA include provisions that ensure mining companies take precautions to mitigate the adverse impacts of their activities on the right to health and food for any displaced communities or informal workers associate with their supply chains**. Stakeholders' suggestions in this regard are outlined in the environmental analysis section.

8.3.3. Environmental impact assessment

Baseline

Fossil fuel consumption for electricity generation has consistently been a major contributing factor to GHG emissions in Indonesia, as detailed in **Chapter 6.1**. The contribution of especially coal to GHG emissions is significant, and with Indonesia's National Energy Plan defining the share of coal to account for at least thirty per cent of its input energy source by 2025 – and a minimum of twenty-five per cent by 2050 –coal consumption is expected to increase.[452] As oil is also projected to maintain a strong position within Indonesia's energy mix – with twenty-five per cent by 2025, and twenty per cent by 2050 respectively – serious effort will be needed to clean the production processes of both these energy streams in order to meet Indonesia's Paris Agreement commitments. Indonesia's continued population growth will result to energy consumption being the main contributor to CO_2 emissions by 2026 or 2027 according to the World Resource Institute.[453] Most of Indonesia's natural resources are extracted by SOEs. This has also impacted progress in the development of a regulatory framework and targets for renewable energy.

GHG emissions are not the only by-products released within the energy and mining production chain. Others include the release of a large amount of toxic waste, minerals and heavy metals that can affect the quality of both soil and water. In Borneo for example, waste-water entering water bodies has reduced fish populations and coal-dust covers fresh agricultural products.[454] This is particularly noteworthy in relation to poor mining practices, relating to unsustainable disposal of wastes among others. These pose grave environmental hazards and have a higher likelihood of resulting in accidents: coal fires for example can burn for decades once ignited and reduce a whole area's economic and environmental viability given the constant release of toxic chemicals.[455] The Indonesian government has indicated to not prioritise the development of any new areas for the purpose of mining, and more effort is being made for projects to comply with environmental standards – including the clean and clear certificate (CnC) administered by the Energy and Mineral Resources Ministry of Indonesia. Illegal mining however has been an ongoing issue in Indonesia and stakeholders point out that the forging of licenses indicating compliance with environmental

[452] The Government of Indonesia, "Government regulation of the Republic of Indonesia Number 79 of 2014 on National Energy Policy", accessed 22 August 2018 via: http://ditjenpp.kemenkumham.go.id/arsip/terjemahan/2.pdf
[453] CHRYSOLITE, H, JULIANE, R., CHITRA, J., & GE, M., 2017, "Evaluating Indonesia's Progress on its Climate Commitments", accessed 28 August 2018 via: https://wri-indonesia.org/en/blog/evaluating-indonesia%E2%80%99s-progress-its-climate-commitments
[454] IVES, M., 2015, "Indonesian Coal Mining Boom Is Leaving Trail of Destruction", *Yale Environment 360*, accessed 28 August 2018 via: https://e360.yale.edu/features/indonesian_coal_mining_boom_is_leaving_trail_of_destruction
[455] Environment, 2015, "Effects of mining on the environment and human health", accessed 28 August 2018 via: https://www.environment.co.za/mining/effects-of-mining.html

standards is not uncommon. Regulatory ambiguity exists for the administration over larger firms, which often cross administrative districts in their scale of operation. This facilitates malpractices if neither district takes the lead. The Anti-Corruption Commissions over the past three years has made significant progress in improving compliance to counter these effects: revoking permits and suspending extraction processes when forged permits were identified.

Surface mining – also known as open or strip mining – is practiced in Indonesia, including for copper and gold extraction from Grasberg mine in Indonesian Papua. As this method removes the top layers of soil to expose minerals, surface layer landscapes and ecosystems are destroyed in the process. This leads to a greater risk for soil erosion, destabilising slopes when loosened by wind or water which can then pollute waterways as these sediments enter water bodies. Underground mining poses different threats, including the relocation of large amounts of waste earth and rocks to the surface – some of which could become toxic when brought into contact with air and water. Without effective engineered structures, underground mines are at risk of collapsing, while continued mining has also resulted in the lowering of the water table in direct vicinity to the mine.

Liberalisation and impact analysis

As mentioned above, the CGE modelling indicates that both fossil fuels and the other mineral products are not projected to experience notable impacts as a result of a reduction of tariffs and non-tariff barriers. The model projects less than 0.1 per cent change in output of these products in both Indonesia and the EU. In this respect, environmental risks resulting from the minor quantitative impacts of the FTA on energy and mineral products are also considered minor.

Regarding Indonesia's fossil fuel emissions, the CGE results expect these to increase by 0.04 per cent for the conservative scenario and 0.05 per cent for the ambitious scenario, accounting to 0.02 MT of CO_2 emissions. Other minerals witness increases of CO_2 emissions by 0.02 per cent in the conservative (0.01 MT) scenario, and 0.06 per cent for the ambitious scenario (0.02 MT). For the EU, the conservative scenario would lead to decreases of emissions linked to fossil fuels of 0.003 MT (-0.001 per cent change) but increases for those linked to other minerals of 0.008 MT CO_2 emissions (0.01 per cent). The ambitious scenario would see decreases of 0.008 MT CO_2 emissions for fossil fuels (-0.003 per cent) and increases of 0.008 MT CO_2 emissions for other minerals (0.01 per cent).

Transport accounts for a large share of the total CO_2 emissions in Indonesia, and thus concrete measures to reduce consumption of fossil fuels and other mineral products for energy demand and to transport commodities would be needed. The Indonesian government has indicated the commitment to gradually replace fossil fuel with renewable energy, as stipulated in the *Government Regulation No 22/2017 (RUEN)*. Support for this plan, in addition to new EU innovation and investment stimulus, as well as increasing good governance practices could address environmental concerns and encourage sustainable mining practices. **Mitigation efforts could be achieved through diversification of energy sources: the EU is one of the global leaders in renewable energy development, and EU companies offer a wide range of specialized expertise.** Strict enforcement of the implementation of Law No 32/2009 on the implementation of the Environmental and social Impact Assessment (in Indonesia called as AMDAL) Management could further contribute to green investment in this sector, contributing to Indonesia's transition to clean energy alternatives.

While reference and adherence to MEAs (including UNFCCC and the Paris Agreement) is often included in EU FTAs– and Indonesia has set ambitious policy objectives in relation to its renewable energy target[456] – stakeholders have been sceptical about the government's ability to realistically achieve these or the EUs ability to influence this outcome. In order to counter environmental degradation in relation to commodities traded in Indonesia's energy and mining sector, **an accompanying measure could include the creation of a certification scheme to support the ESIA (AMDAL), an environmental management and monitoring plan as stipulated in the *Indonesian law No 32/2009*, and/or the creation of a certification schemes such as ISO 14001 (Environmental management system).** At the same time, the lack of capacity and expertise of small-scale mining firms should be addressed, responding to concerns on their non-compliance if standards were too strict. With illegal and unregistered mines in widespread operation in Indonesia, strict enforcement measures should be taken by the Indonesian government to close them or ensure their legitimate and safe operation.

8.4. Clothing and Apparel

8.4.1. Economic impact assessment

Baseline

Indonesia has the tenth largest clothing, apparel and footwear industry in the world. Combined with the Garments, Textiles and Footwear (GTF) industry, it includes over 3000 companies and, as of 2016, employs around 4.2 million people, accounting for 26.6 per cent of all manufacturing jobs in the country.[457] Of its total production, 61 per cent exported, with the EU and the US being the main destinations. With a global share of 4.9 per cent, Indonesia is also the 4th largest footwear manufacturer in the world; producing more than 1.185 billion pairs of shoes in 2016.[458] Indonesia's footwear sector is likely to experience a steady growth rate of just under 10 per cent in the coming years.[459]

The clothing, apparel and footwear industry has always been among the largest segments of manufacturing in Indonesia, accounting for over 5 per cent of the country's total exports in recent years. The sector forms part of Indonesia's *Industry 4.0* policy, where its projected domestic consumption is expected to increase by up to 9 per cent by 2025 from 2016 levels. As Indonesia is the largest market in ASEAN – in total population – the clothing industry, including sportswear, has additional growth potential. At the same time, as Indonesia relies on imports for the raw material necessary in the textile manufacturing industry, production facilities have centred mainly in Java, in the vicinity of Jakarta and the larger seaports.

Indonesia faces tough regional competition in this sector from China and Vietnam. While the former has seen manufacturing relocate considering rising labour wages, the latter has been a popular investment destination in the clothing and apparel sector. Nevertheless, Indonesia's relatively low labour costs and political stability – as well as the availability of cheap industrial land – make it an interesting market for foreign investors. For this reason,

[456] 23 per cent of its energy mix should be derived from renewable energy sources by 2025, increasing to 31 per cent by 2050
[457] The International Labour Organisation, 2017, "Mixed picture for Indonesia's garment sector", accessed 5 September 2018 via: http://www.oit.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_625195.pdf
[458] World Footwear, 2018, 'Indonesia's forecast for 2018', retrieved 24 August 2018 via: https://www.worldfootwear.com/news/indonesias-forecast-for-2018/2907.html
[459] Ibid.

various global brands have established manufacturing plants in Indonesia, or have contracted domestic manufacturers to complete their production orders. At the same time, investment in local industry still originates predominantly from local manufacturers who seek to modernise their outdated production facilities, thereby becoming more competitive in producing faster and cheaper orders. Foreign investment in the footwear industry in Indonesia is dominated by China and South Korea.

The EU clothing, apparel and footwear sector accounts for more than 30 per cent of the world market and has seen a steady growth rate of 13 per cent for its total global exports in recent years, in comparison to 4 per cent for its imports.[460] The industry has seen a transformation toward higher value-added and more versatile products. Similarly, to remain competitive on a global scale, production facilities have been moved to the Euro-Mediterranean region or sub-contracted to regions where labour costs are lower.

Although Indonesia was the 10th largest source for the EU's clothing and apparel imports in 2017, it only accounted for 1.4 per cent of its total imports in this sector. For footwear imports into the EU, however, Indonesia accounted for 7.9 per cent of imports, exceeded only by China and Vietnam. In aggregate, the EU is a key export market for Indonesia in this sector, making up for approximately 16 per cent of its clothing and apparel exports, and a further 37 per cent of its total footwear exports.[461]

Liberalisation and impact analysis

The economic impacts of the EU-Indonesia FTA, as estimated in the CGE model, would differ according to the extent of liberalisation modelled in the two scenarios. Overall, domestic output in the EU is expected to decrease in favour of increased imports, likely because of lower production costs in Indonesia. Across both liberalisation scenarios, the EU's output of wearing apparel is estimated to decrease by approximately 0.3 per cent (€342 million) while leather products would decrease by nearly 1.2 per cent (€830 million). Although not the focus of this section, it is important to note that textile production in the EU – including technical and industrial textiles – is similarly estimated to decrease by 0.3 per cent (approximately €530 million).

While the agreement would be expected to generate significant increases in overall EU exports of wearing apparel (€128 million to €140 million) and leather products (€198 million to €212 million), it is expected that this would be significantly less than growth in imports. In this regard, the model estimates that EU imports of wearing apparel would grow by approximately 0.6 per cent (approximately €650 million) in the conservative liberalisation scenario, while imports of leather products are estimated to grow by approximately 2.3 per cent (approximately €1,280 million) as can be seen in **Table 29.**

The growth in EU exports is expected to be more pronounced with regard to bilateral, rather than global, trade. Specifically, under the conservative scenario, EU exports to Indonesia are anticipated to increase by 164 per cent for apparel (€85 million), 100 per cent for leather products (€78 million), and 101 per cent for textiles (€187 million). Highlighting the industry's responsiveness to the reduction of barriers, the ambitious scenario would see EU exports to Indonesia increase by 197 per cent for apparel (€101 million), 122 per cent for leather product (€96 million), and 120 per cent for textiles (€222 million). As the estimated

[460] European Commission DG GROWTH, "Textiles and Clothing Industry: International Trade", retrieved 24 August 2018 via:
https://ec.europa.eu/growth/sectors/fashion/textiles-clothing/international-trade_en
[461] UN COMTRADE

increases in overall EU imports would be significantly lower than those from Indonesia, it is expected that the EU would divert its global imports in such products away from third countries.

Table 29: CGE Modelling Results in Trade in Textile, Wearing Apparel and Leather Products

		Total Imports increase in mln EUR (%)		Total Exports increase in mln EUR (%)		Bilateral Exports increase in mln EUR (%)	
		Conservative	Ambitious	Conservative	Ambitious	Conservative	Ambitious
Textiles	EU	562.5 (0.6)	582 (0.6)	207 (0.6)	233 (0.6)	187 (101)	222 (120)
	Indonesia	365 (4.5)	385 (4.7)	952 (5.5)	981 (6)	1,064 (50)	1,070 (50)
Wearing apparels	EU	650 (0.6)	669 (0.6)	128 (0.6)	140 (0.6)	85 (164)	101 (197)
	Indonesia	74 (10.5)	86 (12.2)	1,491 (15)	1,507 (15)	1,555 (77)	1561 (78)
Leather and Leather Products	EU	1,280 (2.3)	1,296 (2.4)	198 (1.04)	212 (1.1)	78 (100)	96 (122)
	Indonesia	110 (9.8)	123 (11)	2,440 (22.2)	2,464 (22.4)	2,516 (51)	2,530 (51)

Estimates on sectoral output in Indonesia confirms this trend, with the model projecting that the conservative scenario would lead to a growth in Indonesian production in wearing apparel (9.6 per cent), leather and leather products (11.7 per cent), and textiles (2.7 per cent). The ambitious scenario would see further increases in all three sectors, albeit marginal. Indonesia's total exports in wearing apparel are anticipated to increase by 15 per cent (roughly €1.5 billion), while those in leather and products are estimated to increase by 22 per cent (approximately €2.5 billion) across both liberalisation scenarios. Bilateral exports to the EU are specifically projected to increase by 77 per cent for wearing and apparel (accounting for over €1 billion), while leather and products increase by 51 per cent (taking up almost all of Indonesia's total export increases valued at €2.5 billion). This would suggest that the agreement would allow for an increased integration of Indonesia's apparel, textile and leather manufacturing industries into the EUs global supply chain.

The results of the CGE model indicate that there would be a strong change in the composition of Indonesia's production structure: in view of the responsiveness of this sector to trade liberalisation with the EU, a pull towards these sectors is anticipated under the FTA, strengthening their position as one of Indonesia's core income-generating export sectors. This falls in line with Indonesia's *Industry 4.0* objectives, where wearing apparel is identified as one of the priority sectors.[462] In order to further attract investment and integrate its production into global value chains, Indonesia has already expanded the number of Special Economic Zones (SEZs) with a special focus on textile, apparel and footwear products.

Taken together, these developments would promote a further improvement of Indonesia's upstream capabilities: with both efficiency and scale expected to increase for this industry under the FTA, costs can be further reduced to make Indonesia's clothing, apparel and footwear sector more competitive. Further vertical integration of the supply chain would support this, **allowing for Indonesia to contribute to higher added-value segments in the supply chain.** In this respect, FDI could play an important role in enhancing technical and technological capabilities. Moreover, the enhanced access to the EU market for Indonesian clothing exports that would stem from the FTA is likely to appeal to other foreign

[462] ATMAWINATE, A., 2018, "Making Indonesia 4.0: focus pangan dan energy", *National Research Council of Indonesia*, accessed 5 September 2018 via: https://www.drn.go.id/files/2018/APRIL%202018/19042018-Presentasi%20FGD%20Lintas%20Komtek%20Pangan%20dan%20Energi%20DRN/Ir__Achdiat_Atmawinata_Making_Indonesia_DRN_Pangan_Energi_April2018_VersiLengkap_final_compressed.pdf

investors including China and the US, who may be more inclined to establish a manufacturing base in the country benefitting from Indonesia's preferential access to the EU. These increased levels of FDI could be a key trigger to support production levels, and a greater presence of foreign manufacturers is likely to ensure the dissemination of knowledge, as well as further the modernisation of local production facilities.

8.4.2. Social and human rights impact assessment

Baseline

As of 2016, 72 per cent of those working in GTF were wage and salaried employees, working primarily in large- and medium-sized enterprises. A further 20.3 per cent were classified as own account workers and 3.5 per cent as unpaid family workers. Own account workers and unpaid family workers are classified as vulnerable workers and thus 23.8 per cent of the workers in GTF are considered as vulnerable workers due to the unstable income they can anticipate from their employment in this sector. At this rate, the level of vulnerability is low, however, the proportion of vulnerability has increased from 19 per cent in 2012.[463] An anticipated growth in this sector as per the *Industry 4.0* plan would create unwelcome stresses and impacts on own account workers and unpaid family workers if they are not sufficiently protected by national legislation.

The sector has experienced an increase in wages, particularly amongst female employees. Real average wages for employees in the GTF industry increased significantly between 2012 and 2016, an increase of approximately 8.8 per cent per annum since 2012. For female wage employees in the GTF industry, average real wages increased by 10.1 per cent per annum between 2012 and 2016, while for males, the increase was 7.2 per cent. Despite the disparity in the increase in real average wages for female and male employees, the average wage levels for men remain higher than those for women. Wages are differentiated on the basis of education such that a higher level of education is associated with a higher wage.[464] However, as highlighted in the stakeholder workshop, issues concerning adequate compensation remain in this sector, where wages have also become a bargaining chip for employers and employees in relation to the possibility to strike action or general working conditions.

Women make up the majority of those employed in GTF, though the female share of employment has been falling (GTF female employment decreased by 2.5 per cent per annum). Other than in terms of wages earned, a gender gap also exists in the quality of work. Men tend to occupy a greater proportion of senior management positions, while women are present primarily as manufacturing workers and the occupational category of production, transportation and hiring equipment operators, production and related workers, transport equipment operators and labourers. 78.1 per cent of men were classified as employees compared to 73.3 per cent of women. The gap extends to 7.5 per cent when limited only to non-casual employees, (75.9 per cent of males against 68.4 per cent of females), indicating that women in the industry are still less likely to be in regular positions than men. The casualisation rate was higher for female GTF employees (8.1 per cent) than for male (3.5 per cent) in 2016.[465]

[463] Ibid.
[464] Ibid.
[465] ILO, 2016, Gender pay gaps persist in Asia's garment and footwear sector, accessed 6 August 2018 via: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_467449.pdf

Stakeholders have indicated that the development of Special Economic Zones – and the emphasis these have put on the GTF sector – has had wage-minimising implications in order to suppress costs for foreign investors. At the same time, minimum wage compliance in the GTF sector has improved over recent years, increasing from 29.4 per cent in 2012 to 40.5 per cent in 2015. Compliance rates in the GTF industry more than doubled for males - from 24.4 per cent to 48.3 per cent, between 2012 and 2015. The increase for women in comparison was small, increasing from 32.9 per cent to 34.9 per cent over the same period. Overall, however, room for improvement remains with regard to minimum wage compliance levels.[466]

As explained in the horizontal analysis, issues of concern in the Indonesian GTF sector remain with regard to working conditions (**Chapter 4.3**) and to women's rights (**Chapter 5.5**).

Liberalisation and impact analysis

The clothing, apparel and footwear sector in Indonesia is expected to expand significantly under a prospective EU-Indonesia FTA. The exact implications for sector output are outlined in the economic assessment. With a greater level of liberalisation, more workers are expected to be absorbed by the sector in Indonesia, while in the case of the EU, workers are expected to move away from the sector. The increase in the number of the workers moving into the sector in Indonesia is expected to be large. Already the largest source of employment in the manufacturing sector, under a prospective FTA, Indonesia's wearing apparel sector is expected to witness an expansion of approximately 10 per cent for both skilled and unskilled workers. The leather and leather products sector is expected to see an expansion in skilled and unskilled employment of up to 12 per cent. Finally, the textiles sector is expected to see an expansion of up to 2.5 per cent for both skilled and unskilled employees. Given the large number of workers employed in these sectors, these percentage changes reflect a large number of absolute workers who may be added to the sector.

This could result in a wide range of social impacts – both positive and negative. Important to note are the implications for employment: those who find themselves in a position of vulnerable employment are less likely to have formal work arrangements, and as a result will be more likely to lack decent working conditions, adequate social security and representation by unions or similar organisations. Inadequate earnings, low productivity and difficult conditions of work that undermine workers' fundamental rights are common indicators of vulnerable employment. In addition to the greater risk of vulnerable employment, the gender gap in wages and minimum wage compliance levels also disadvantage women. **The EU-Indonesia FTA could then push for the implementation of non-gender discriminatory policies in order to ensure equal pay and quality of work.[467]**

In the case of Indonesia, often, the qualifications gained at vocational training institutions do not match the real needs of the labour market, and graduates do not possess the skills needed to find decent employment.[468] Indonesia's education system, however, is

[466] International Labour Organisation, 2016, Asia-Pacific Garment and Footwear Sector Research Note, accessed 6 August via: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_509532.pdf
[467] ILO, 2016, Gender pay gaps persist in Asia's garment and footwear sector, accessed 6 August 2018 via: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_467449.pdf
[468] GIZ, Sustainable economic development through technical and vocational education and training (SED-TVET) accessed 20 August 2018 via: https://www.giz.de/en/worldwide/16755.html

undergoing reform and national policy acknowledges the rising importance of providing better training to workers in order create a productive workforce. Industry players have also been involved to provide sector specific skills and increase the number of vocational training institutes.[469] Under the *Making Indonesia 4.0* plan, the government intends to redesign education curriculums, and create a professional talent mobility program. It also aims to upgrade vocational schools and leverage foreign skills. **If these programmes are well implemented and can impart high quality skills and training, they will serve to mitigate the potential problem of skills mismatch that may arise under the prospective EU-Indonesia FTA.**

Despite the increase in real wages, irrespective of the fact that the growth has been unequal amongst men and women, the wages paid in the garments sector remain low. As of 2011, the wages paid to Indonesian garments workers accounted only for 26 per cent of a living wage (compared to the 2001 level of wages, which accounted for 14 per cent of a living wage). If the real wage growth achieved between 2001 and 2011 were to be sustained, it would take approximately forty years before Indonesian garment workers attained a living wage for themselves and their families. Indonesia has seen an increase in its minimum wages, though efforts to ensure fair wages in the sector needs to be strengthened.[470] [471] Minimum wages in Indonesia are resolved at the district level, and the GTF industry is concentrated in districts with some of the lowest minimum wage levels. Furthermore, despite the improvements made in minimum wage compliance, the compliance level needs to be improved to ensure a better standard of living for workers. The FTA could have a positive impact in this regard, namely by including **provisions such as ILO conventions, which, as mentioned in greater detail in the overall social impacts section, could potentially lead to an improvement in working conditions. Furthermore, support to CSR and RBC initiatives may also play a part in improving working conditions.**

From a human rights perspective, the expansion of the GTF sector could pose challenges with regard to the protection of women's rights in this sector, as detailed in **Chapter 5.5.** as well as could potentially lead to increased use of child labour as indicated in **Chapter 5.3.**

While sectoral employment is estimated to expand in Indonesia, a decline in employment is projected to occur in the EU as a result of the FTA. As such, workers in the EU will potentially face the challenge of a skills mismatch. As workers may have to move between sectors to find employment, their skills from their sector of origin may not be transferable to their destination sector. The way people may be able to cope with adapting their skills or acquiring new skills to a new sector or job can be influenced by skills development and education and training policies in their respective countries. This will depend largely on the skills development and training facilities provided. The EU, under the prospective FTA, is expected to a see a shift towards the automotive sector. Overall, actions for skills development and vocational training are well established in the EU. These include helping low skilled adults to acquire a broader set of skills through access to secondary educational qualifications, improving digital skills in the workplace and programmes to address skill

[469] "Indonesia gears up for vocational education reform", *The Jakarta Post*, 2016, accessed 20 August 2018 via: http://www.thejakartapost.com/news/2016/11/29/indonesia-gears-up-for-vocational-education-reform.html
[470] Clean Clothes Campaign, 2014, Living wage in Asia, accessed 18 August 2018 via: https://cleanclothes.org/resources/publications/asia-wage-report
[471] Center for American Progress and Workers Rights Consortium , 2013, Global Wage Trends for Apparel Workers 2001-2011, accessed 18 August 2018 via: http://www.americanprogress.org/wp-content/uploads/2013/07/realwagestudy-3.pdf

shortages, among others.[472] **Moreover, the EU may be able to provide valuable technical assistance to Indonesia in establishing skills development and vocational training programs.**

[472] European Commission, New Skills Agenda for Europe, accessed 30 August 2018 via: http://ec.europa.eu/social/main.jsp?catId=1223

8.4.3. Environmental impact assessment

Baseline

The possible impacts of clothing, apparel and footwear production on water quality are widespread and discussed under **Chapter 6.2**. Environmental standards applied industry-wide are often voluntary and are related to consumer-demand – an issue many European brands have started to act upon. However, either through unawareness or a lack of compliance, many of these brands have relied on suppliers that were operating without respecting the environmental standards committed to by major European brands. Greenpeace has reported on several European brands finding themselves in compromising positions where Indonesian suppliers were releasing toxic waste into the environment even while companies had made policy commitments to address such concerns. The inability of these companies to ensure compliance to the standards – often to reduce costs – brings light to broader concerns in the supply chain.

The role of local authorities in ensuring the compliance of factories with environmental standards is also relevant: in 2015, NGOs Pawapeling and WALHI (Indonesian Forum for the Environment) sued the Sumedang Regency government – in combination with three factories – for dumping waste in the Cikijing River. [473] This was based on the local authorities' inability to ensure the proper execution of an environmental impact assessment before issuing wastewater permits and while afterwards not monitoring instances of discharge. The permits issued to the three factories were suspended, revoked and cancelled in 2016.

In light of the potential of innovative technology, environmental issues could be sufficiently addressed in the future, for instance through a larger use of waterless dyes or an increase in energy efficiency.[474] Private initiatives in these areas should be introduced if sector operators really want to reduce their environmental impact. The extent to which the public sector can support this through the wider EU-Indonesia partnership will be explored under the liberalisation scenario.

Liberalisation and impact analysis

According to the CGE model results (described in detail under Section 6), CO_2 emissions from the textile, apparel and footwear industry would see an increase under the conservative scenario of 0.52 per cent for Indonesia. The ambitious FTA could see an increase of 0.55 per cent from the baseline scenario. The supply chain within this sector relies specifically on synthetic fibres that are produced from fossil fuel, hence an expansion of emissions is projected to take place with an anticipated sector expansion.[475]

In assessing the environmental implications of the leather industry, attention should be paid to both GHG emission and deforestation.

[473] PRICE, D. M., 2017, "Worse for Wear: Indonesia's Textile Boom", *UNDARK*, accessed 29 August 2018 via: https://undark.org/article/indonesia-textiles-citarum-river-pollution/
[474] MOWBRAY, J., "Adidas helps Indonesia suppliers save energy", *EcoTextile News*, accessed 29 August 2018 via: http://dev.ecotextile.com/2013090312173/fashion-retail-news/adidas-helps-indonesia-suppliers-save-energy.html
[475] 2.88 per cent for textiles, 12.29 per cent for leather products and 10.32 per cent for wearing apparel.

Worsened water-quality can further be anticipated with this sector's expansion unless **dissemination of pollution mitigating technology or innovation could allow for the mitigation of possible negative environmental impacts**. **This particularly relate to the liberalisation of investment within the FTA.** This relates to wastewater treatment, filters, waterless dyes or an increase in energy efficiency,[476] as well as less water-intensive technology. Filters that reduce CO_2 emissions, if implemented industry-wide, could further benefit the sector. Cooperation mechanisms concerning technological skills, implementation, financing and monitoring would play an important role to achieve this – for example **through *Government Act Number 32/2009* on Environmental and social Impact Assessment (ESIA), including issuing of management and monitoring plans to minimise environmental risks resulting from textile industries, and/or the support of the application of environmental management certification (ISO 14000, ISO/TS 14067-carbon footprint)**.

Stakeholders have also suggested that closer cooperation on the chemicals in use in the clothing, apparel and footwear sector should be reflected in FTA clauses, whereby both parties should agree on the use of certain chemicals – potentially blacklisting those that have been proven to have negative impacts on the environment.

8.5. Motor Vehicles and Parts

8.5.1. Economic impact assessment

Baseline

As the ASEAN's second largest automotive manufacturer, Indonesia is responsible for the majority of motor vehicles sales in the region, representing approximately one-third of all annual sales.[477] In 2017, the Indonesian annual car production capacity was estimated at around 1.2 million units. The manufacturing industry is centred mostly in West Java, around Bekasi, Karawang, and Purwakarta, as this region is well connected with Indonesia's capital Jakarta, where overall infrastructure is most developed, and domestic car demand is highest. Similarly, the vicinity of the port of Tanjung Priok adds to its favourable location for the car industry. The automotive sector is a major employer in Indonesia, providing jobs for more than 3 million people directly and through related sectors.[478]

In the EU, the automotive industry is of great economic importance, partially due to its connection with other industries such as the steel and chemicals industry. It employs around 12 million people, divided respectively across manufacturing (3 million), sales and maintenance (4.3 million), and transport (4.8 million). Combined, this accounts for 4 per cent of the EU's GDP.[479] Nevertheless, it is expected that 80 per cent of future growth in the industry will take place outside European borders, for which it could benefit from improved access to third markets that could foster trade opportunities.[480]

[476] MOWBRAY, J., "Adidas helps Indonesia suppliers save energy", *EcoTextile News*, accessed 29 August 2018 via: http://dev.ecotextile.com/2013090312173/fashion-retail-news/adidas-helps-indonesia-suppliers-save-energy.html
[477] ASEAN Automotive Federation, 2017, "ASEAN automotive federation 2017 statistics", accessed 5 September 2018 via: http://www.asean-autofed.com/files/AAF_Statistics_2017.pdf
[478] European Commission, DG GROWTH, 2018, 'Automotive Industry', retrieved 23 August 2018 via: https://ec.europa.eu/growth/sectors/automotive_en
[479] Ibid.
[480] Ibid.

Indonesia's economy grew 6 per cent per year between 2007 and 2012.[481] Though growth rates have declined, Indonesia's economic dynamism is still significant with GDP growth of 5 per cent in 2017.[482] Consequently, with a total population of 258 million inhabitants, an expanding middle class with growing purchasing power, and a low per capita-car ownership level (42 per 1000 capita),[483] Indonesia holds a high market potential for car manufacturing companies. Nevertheless, its automotive industry still relies heavily on FDI inflows, in which global brands such as Toyota and Nissan take the lead. The Japanese dominance in the Indonesian car industry is attributed to the preferential tariffs that it enjoys through the Japan-Indonesia Economic Partnership Agreement (EPA). Though the EU was the fourth largest source of FDI to Indonesia in 2016, it only accounts for 9 per cent of Indonesia's automotive imports and 2.3 per cent of their exports. Therefore, it holds an economic disadvantage toward regional players such as Japan.

Bilaterally, the EU exports of automotive products to Indonesia exceed its imports. In 2017, the EU exports accounted for EUR 366 million, while the imports from Indonesia were EUR 102 million in total.[484] Under the baseline scenario, the Indonesian automotive industry would be predicted to continue to grow at a rate similar to its recent levels.

Liberalisation and impact analysis

The economic analysis in this section builds on the results presented by the CGE model as the potential outcomes arising from the conclusion of an FTA between the EU and Indonesia.

The analysis assumes that under the FTA the parties are likely to pursue a trade environment compatible with international trade standards under the World Forum for Harmonisation of Vehicle Regulations, within the framework of the UNECE. This implies that they would aim for a more competitive market without non-tariff barriers, based on "principles of openness, non-discrimination and transparency".[485] **This analysis anticipates that a prospective FTA agreement would include measures that could improve market access for EU car manufacturing companies**. These measures are likely to include preferential tariffs for EU automotive exports — in line with those enjoyed by Japan — which could attract more FDI and the establishment of more EU anchor firms.

Beyond this, stakeholders have suggested that the automotive industry should be included in the industries in which 100 per cent foreign ownership is permitted, which is likely to attract more FDI, promote sales growth, and further technology transfer. In turn, this approach is likely to boost economic growth and improve Indonesia's overall investment climate.[486]

[481] Indonesia Investments, 2018, 'Automotive Manufacturing Industry Indonesia', *Indonesia Investments.* Accessed 23 August, 2018. https://www.indonesia-investments.com/business/industries-sectors/automotive-industry/item6047?
[482] The World Bank, 2018, June 2017 Indonesia Economic Quarterly: Upgraded. *The World Bank*. Accessed 23 August, 2018. http://www.worldbank.org/en/country/indonesia/publication/indonesia-economic-quarterly-june-2017
[483] Eurocham, 2018, 'Automotive: Eurocham position paper', retrieved 24 August 2018 via: http://www.eurocham.id/index.php/publications/category/367-2018-eurocham-position-paper-automotive-head-folder.html
[484] European Commision DG Trade, EU trade with Indonesia, accessible via http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113391.pdf
[485] European Commission (P. 2), DG TRADE, 2018, 'Annex: Motor Vehicles and Equipment and Parts thereof', accessed on 23 August 2018 via: http://trade.ec.europa.eu/doclib/docs/2018/march/tradoc_156644.pdf
[486] Eurocham (2018), 'Automotive: Eurocham position paper', accessed on 24 August 2018 via: http://www.eurocham.id/index.php/publications/category/367-2018-eurocham-position-paper-automotive-head-folder.html

Improved market access could foster significant growth opportunities for EU manufacturers given Indonesia's low per-capita car ownership levels. This development could erode the current trade surplus Indonesia holds in the automotive industry. The CGE results support the forecast that total EU automotive exports are expected to grow significantly at a rate of 0.3 per cent, both in the conservative and in the ambitious scenario, which translates into increased export value ranging from €1.10 billion to €1.13 billion. The EU is also projected to see a growth in output of approximately 0.09 per cent across both scenarios, resulting in an increase of production value ranging from €894 million to €917 million.

Total Indonesian exports are projected to increase marginally as a result of the agreement, with the model projecting increases of 0.34 per cent (approximately €29 million) under the conservative scenario and 0.5 cent (€45 million) in the ambitious scenario (see **Table 30**). These increases, however, are significantly less than the anticipated growth in overall imports of motor vehicles and parts, with the model projecting an increase ranging from €677 million to €725 million. This growth is largely driven by increased imports originating from the EU, which is expected to see an increase of over €1 billion in its exports to Indonesia as a result of the agreement. Cumulatively, the results suggest that the agreement would lead to notable degrees of trade diversion, impacting other countries who currently export motor vehicles and parts to Indonesia, while also leading to a contraction of the domestic industry. In this regard, the model projects that the agreement would possibly result in a 1.7 per cent reduction in Indonesia's sectoral output, leading to a decline in value of nearly €545 million.

Table 30: CDE Modelling Results for Trade in Motor vehicles and Other Transport Equipment

		Total Imports increase in mln EUR (%)		Total Exports increase in mln EUR (%)		Bilateral Exports increase in mln EUR (%)	
		Conservative	Ambitious	Conservative	Ambitious	Conservative	Ambitious
Motor vehicles and parts	EU	156 (0.1)	180 (0.1)	920 (0.3)	948 (0.3)	1,040 (166)	1,116 (178)
	Indonesia	677 (7.5)	725 (8,1)	29 (0.34)	45 (0.5)	54 (17)	55 (18)
Other transport equipment	EU	105 (0.1)	139 (0.1)	191 (0.18)	314 (0.3)	251 (26)	402 (41)
	Indonesia	192 (2.7)	274 (3.9)	-10 (-0.17)	6.5 (0.1)	43 (8)	45 (9)

While the formal model projects a decline in output and a worsening of Indonesia's balance of trade in motor vehicles and parts, the agreement could produce benefits for the Indonesian automotive sector through increases in EU investments. In such an instance, the Indonesian automotive sector could improve domestic R&D capabilities, as well as facilitate skills and dissemination of knowledge and technology. In turn, upgraded domestic manufacturing capacities could result in increased value of exports over the long-term, thus helping to stimulate economic growth. Since the EU companies that would invest in the local industry are often larger anchor firms, it is possible that suppliers may follow, which could facilitate the creation of manufacturing ecosystems or clusters and thus improve domestic car production capabilities. Similarly, a strong automotive industry would positively impact connected sectors — such as steel and chemicals — and help reach the long-term ambition of the government to transform Indonesia in a global car production hub.

8.5.2. Social and human rights impact assessment

Baseline

The automotive sector is a major employer in both the EU and Indonesia, providing jobs for 5.7 per cent of the EU workforce (11 per cent of total manufacturing employment) and employing up to 2.2 per cent of Indonesia's workforce (8 per cent of total manufacturing employment), directly and through related sectors[487]. Within the EU, automotive manufacturing is an important source of well-paid employment that is supported by strong labour unions. These labour unions advocate workers' rights and labour conditions. Similarly, in Indonesia, the sector serves as an important source of well-paid jobs with workers in the industry more positively represented by collective bargaining than in other industries.[488] [489] Typically, automotive industry workers have higher levels of skills and productivity in comparison to other sectors such as textiles.

Liberalisation and impact analysis

The EU's automotive sector is projected to see an increase in employment under the CGE model (approximately 0.09 per cent under both the conservative and ambitious scenario). The 0.09 per cent increase in employment is somewhat significant, considering that the motor vehicles sector in the EU employs approximately 3 million people in manufacturing. The EU could potentially see slight creation of well-paid jobs, once trade is liberalised under the prospective EU-Indonesia FTA. At the same time, it can be expected that some labour can be displaced due to increasing use of automation technologies. This should, however, not create major social problems in terms of unemployment and poverty in the EU, since the motor vehicles sector predominantly employs skilled labour, for which the demand is generally growing.

Employment in the motor vehicles sector in Indonesia is expected to decrease by 2 per cent in the unskilled labour category and by 1.8 per cent in the skilled labour category under the conservative scenario; and by 2 per cent in the unskilled labour category as well as by 1.9 per cent in the skilled labour category under the ambitious scenario. This is important to note as the motor vehicles sector employs around 1.33 to 3 million people in the country. Indonesia could thus potentially see quite a significant loss of well-paid jobs in the motor vehicles sector, once trade is liberalised under the prospective FTA. The potential shift of unskilled labour from the motor vehicles sector could create unemployment and other negative social impacts in the short-term should these people not be able to find employment elsewhere.

As explained in the **Chapter 4**, typically workers in the automotive sectors are more skilled than workers in other sectors such as wearing apparel and textiles. They also benefit from better working conditions and higher levels of wages. Under the prospective FTA, fewer people will be able to be absorbed by this sector in comparison to the scenario which would emerge in the absence of the FTA. In the Indonesian context, this brings about two

[487] Eurostat; Statistics Indonesia; Gaikindo, "Industri Manufaktur akan Serap 17,98 Juta Tenaga Kerja di 2018", available at: https://www.gaikindo.or.id/industri-manufaktur-akan-serap-1798-juta-tenaga-kerja-di-2018/
[488] ILO, ASEAN Community 2015: Managing integration for better jobs and shared prosperity, accessed 28 August 2018 via: https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_300672.pdf
[489] Asian Development Bank, 2016, Analysis of Trends and Challenges in the Indonesian Labor Market accessed 28 August via: https://www.adb.org/sites/default/files/publication/182935/ino-paper-16-2016.pdf

concerns. The first concern pertains to **the question of whether or not those who will be displaced as a result of the FTA will be able to find appropriate employment elsewhere. This refers to the problem of skills mismatch.** It may be possible that some workers who may otherwise have been employed in the automotive sector may be forced to find employment in a sector that requires relatively unskilled workers, meaning that there will be under-utilised human resources in the economy. The second concern relates to whether those who will be displaced as a result of the FTA will find employment in a sector that has labour standards that match those in the automotive sector. **Since Indonesia risks losing a considerable amount of well-paid jobs in the motor vehicles and parts sector, under a full liberalisation scenario for this sector a transition period in tariff liberalization for the motor vehicles and parts sector could be considered.**

8.5.3. Environmental impact assessment

Baseline

Environmental standards for the automotive sector in Indonesia are some of the most lenient in Asia: this relates to emissions as well as diesel sulphur standards.[490] At the same time, these standards are not implemented country-wide to the same extent, creating uncertainty among producers about which standards they should apply– de-facto choosing the most cost-efficient ones. The 2006 Directive of Oil and Gas requires fuel to meet the standards the comply with Euro 2/II emission levels but considering de-centralised government, local authorities like the governor of DKI Jakarta have the possibility to impose stricter requirements for their administrative area. The implementation of Euro 6 for emission standards on new vehicles is being considered for 2020.[491] The need for lower emission vehicles has been recognized, but hesitation from the automotive industry to upgrade outdated technology resulted in a current mixed set of standards in Indonesia's domestic production.[492]

Stakeholders have been eager to point out the role palm oil as a biofuel – noting the distinction with palm oil used in other sectors – given that it can contribute to indirect land-use change and deforestation. This contributes to its expected payback time of a net-reduction in GHG emissions: up to several decades when initially installed on former rainforests, to several centuries when plantations replace peat land. [493] Rubber used to produce components in the automotive provides similar risks as palm oil while also mineral resources used in the car industry and their environmental implications in Indonesia raise concern (see **Chapter 8.3**).

Liberalisation and impact analysis

[490] The International Council on Clean Transportation, 2014, "Opportunities to reduce vehicle emission in Jakarta", accessed 29 August 2018 via: https://www.theicct.org/sites/default/files/publications/ICCT_Jakarta-briefing_20141210.pdf

[491] Clean Air Asia, 2016, "Vehicle inspection and maintenance in Asia policy profile: Indonesia", accessed 29 August 2018 via: http://cleanairasia.org/wp-content/uploads/2016/08/CountryProfile_Indonesia.pdf

[492] United Nations Environmental Programme, 2018, "Summary report – cleaner fuels and vehicles in Asia: implementing the Global Sulfur Strategy", accessed 29 August 2018 via: http://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/25429/CFV_SessionSummary.pdf?sequence=1&isAllowed=y

[493] The European Commission DG Environment, "Study on the environmental impact of palm oil consumption and on existing sustainability standards", p. 51, accessed 27 August 2018 via: http://ec.europa.eu/environment/forests/pdf/palm_oil_study_kh0218208enn_new.pdf

The CGE results project decreases for Indonesia in the motor vehicles and parts sector under both the conservative and the ambitious scenario: 1.61 per cent decreases in the former, while 1.63 per cent decreases in the latter accounting to 0.01 MT CO_2 emissions in either scenario. This is paired with 0.1 per cent increases for the EU in either scenario, accounting for 0.01 MT of CO_2 emissions. To minimise impacts, **the application of a stricter emission limit and a filtering system on vehicle emission (automotive emission standard) resulting from fossil fuel combustion could be considered in Indonesia.** Furthermore, **a clean energy standard for motor vehicles could encourage the use of cleaner motor vehicles in both parties.**

Liberalisation of investment in clean technology could be considered to mitigate negative environmental impacts both with regard to the consumption of vehicles by optimizing production processes. In effect waste streams can be reduced, energy-requirements minimised or even replaced by renewable alternatives. Furthermore, an FTA could result in greater output of e-vehicles. The combination of stricter production standards with an easing of the investment-climate for clean producers would encourage investors to prioritise energy efficiency in fuel consumption but could possibly be further enhanced by incentives for clean vehicle producers.

8.6. Financial Services

In this section, sustainability of financial services is discussed, taking into account the economic benefits and disadvantages, and related social issues relating to employment and wages as well as environmental issues relating to opportunities from green lending.

8.6.1. Economic impact assessment

Baseline

Indonesia's financial sector contributes approximately 3 per cent to the country's GDP and has been growing steadily at a rate of 5 per cent for the past decade. Grow rates are expected to remain steady in the foreseeable future.[494] According to the Indonesia Financial Services Authority, the financial services sector in Indonesia is dominated by the banking sector, which accounts for 74 per cent of the sector's assets. Almost half of banking sector assets are controlled by 4 large banks, three of which are majority owned by the Indonesian government.[495] At the same time, Indonesia also has several small- and medium-sized banks and its banking sector is considered amongst the most profitable in the world. Besides the banking sector, Indonesia also has a fast-growing non-banking sector, led by insurance companies. While Indonesia's financial sector continues to grow and offer opportunities to investors, the public utilisation rate of financial products and services in Indonesia remains relatively low[496].

[494] Indonesia Financial Services Authority, "Indonesian Financial Services Sector Master Plan 2015-2019", 2016, available at: https://www.ojk.go.id/en/berita-dan-kegiatan/publikasi/Documents/Pages/Indonesian-Financial-Services-Sector-Master-Plan-2015-2019/MPSJKI%20OJK%20Final_Eng.pdf

[495] See the structure of Indonesia's banking sector in: "International Monetary Fund; World Bank. 2017. Republic of Indonesia Financial Sector Assessment. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/28391 License: CC BY 3.0 IGO."

[496] See for example, Indonesia Financial Services Authority, "Indonesian Financial Services Sector Master Plan 2015-2019", 2016, available at: https://www.ojk.go.id/en/berita-dan-kegiatan/publikasi/Documents/Pages/Indonesian-Financial-Services-Sector-Master-Plan-2015-2019/MPSJKI%20OJK%20Final_Eng.pdf

The European Union has a well-developed and mature financial services sector, the size of which stood at €68.5 trillion in 2015.[497] The majority of assets in the European Union are held by monetary financial institutions such as banks and the sector is subject to increasing regulations. Just as in Indonesia, the sector is characterised by growing non-banking sub-sectors, led by insurance companies and other financial institutions.

Contrary to the EU, Indonesia's financial services industry has relatively low levels of foreign investments. The large Indonesian economy has not resulted in high financial services penetration, which makes it a potentially important market for the EU banking and insurance sectors. According to reports by the EEAS, the return on equity of the four largest banks in Indonesia was 20.4 per cent in 2017, while the average net interest margin was 5 per cent.[498] This is a very high interest margin for the region – as, for example, Malaysia and Singapore have net interest margins which are half this size. However, insurance penetration (premiums to GDP) "stood at only 1.6 per cent in 2015, far behind the 8.3 per cent rates in Singapore",[499] which means that the insurance market in Indonesia is less developed than its counterpart in many of its neighbouring countries.

Current regulation in Indonesia for investment in the financial services sector (DNI list) permits 99 per cent foreign equity in 'conventional banks' subject to receiving a special license from the Financial Services Authority. It maintains limits on the maximum ownership permitted to any single shareholder. These limits include a 40 per cent maximum ownership share for a shareholder in the form of a bank or financial institution, 30 per cent for a non-financial institution and 20 per cent for an individual shareholder. For investment banks there is a foreign equity cap of 85 per cent foreign ownership, while for insurance companies 80 per cent foreign ownership is allowed according to the 2016 Investment Negative List.[500] According to OECD's FDI Restrictiveness Index, Indonesia's financial services Industry remains relatively restrictive. While EU countries generally score below 0.06, Indonesia still scores a 0.2 in the Financial Restrictiveness Index.[501]

Liberalisation and impact analysis

According to results from the Study's CGE model, the EU-Indonesia FTA would have a limited economic impact on financial services within both countries. For the EU, the model projects marginal declines in sectoral output (less than 0.1 per cent) and in overall exports (less than 0.1 per cent) as well as marginal increases in overall imports (less than 0.1 per cent). For Indonesia, marginal increases are also expected in output (approximately 0.2 per cent) and overall exports (less than 0.1 per cent) of financial services.

However, the financial services sector could nevertheless experience impacts through the agreement's ability to increase investment in Indonesia. It could also

[497] See European Central Bank, "Report on Financial Structures", October 2016, available at: https://www.ecb.europa.eu/pub/pdf/other/reportonfinancialstructures201610.en.pdf
[498] European External Action Service, 2017, European Union; Trade and Investment with Indonesia 2017, accessed via https://eeas.europa.eu/sites/eeas/files/hh0417743enn2.pdf
[499] Ibid.
[500] Presidential regulation of the republic of Indonesia number 44, 2016, accessed on 8 August, 2018 via https://www.bkpm.go.id/images/uploads/prosedur_investasi/file_upload/REGULATION-OF-THE-PRESIDENT-OF-THE-REPUBLIC-OF-INDONESIA-NUMBER-44-YEAR-2016.pdf
[501] "Definition of FDI restrictiveness: FDI restrictiveness is an OECD index gauging the restrictiveness of a country's foreign direct investment (FDI) rules by looking at four main types of restrictions: foreign equity restrictions; discriminatory screening or approval mechanisms; restrictions on key foreign personnel and operational restrictions. Implementation issues are not addressed and factors such as the degree of transparency or discretion in granting approvals are not taken into account. The index here shows the total and nine component sectors taking values between 0 for open and 1 for closed." OECD data, 2018, accessed on 20 August, 2018 via https://data.oecd.org/fdi/fdi-restrictiveness.htm#indicator-chart

benefit the EU financial services companies to the extent that it provides improved equity stakes and/or that it safeguards EU firms from future changes in matters of investment, establishment and operations that would be seen as detrimental.

8.6.2. Social and human rights impact assessment

Baseline

As a large economy with low financial services penetration, Indonesia is a potentially important market for the EU banking and insurance sectors. The current level of financial inclusion in Indonesia is low, with the country having the 4th largest unbanked population in the world (95 million Indonesian do not have ownership of a formal bank account and only 35 per cent of the population owned a formal bank account in 2014). The gender gap in financial inclusion is not substantial, though the difference in ownership of a formal bank account between poorer and wealthier sections of society is 20 per cent. Furthermore, financial inclusion in Indonesia is exhibiting a positive trend.

Insurance coverage has improved with the initiation of government initiatives, specifically the BPJS Ketenagakerjaan (2015), a social security system for workers that covers four schemes: Work Accident Benefit, Death Benefit, Old-Age saving Benefit and Pension, and a new national health insurance scheme, Jaminan Kesehatan Nasional, or JKN (2014) which aims to achieve universal health coverage. As detailed in the overall social impacts section, the current coverage of these new schemes is limited given an inadequate revenue base for full coverage.

Given the positive trend of financial inclusion, Indonesia could potentially achieve a high level of financial inclusion. The situation for insurance, however, is less optimistic. For instance, the cost of funding the JKN is rising annually, and some estimates show that if the health insurance JKN was to achieve full coverage, its cost would double within 15 years, going from 1.9 per cent of government expenditure in 2014, to 4.5 per cent in 2030.[502] Financing public insurance (such as the social security system, BPJS Ketenagakerjaan) for the whole population is likely to drive costs even higher. If the current trend persists, it would prove to be difficult for the government to provide public-funded insurance for all.

The banking sector and other financial institutions play a key role in financing and promoting social enterprises, as well as projects with positive social impacts. Currently, the Indonesian government has implemented a few promising policies that can lead to financing towards social enterprises focused on solving local social issues. For example, in 2013 the Indonesian government issued a regulation requiring banks to allocate at least 20 per cent of their portfolio to the SME sector by 2018.[503] This policy is likely to make more funds available for SMEs, including small social enterprises focused on improving social conditions in rural areas. Promoting social enterprises and making opportunities available to them is likely going to increase, as the Indonesian government is keen on helping social entrepreneurship; at the same time, the government has oftentimes been criticised for not fully understanding social entrepreneurship.

Liberalisation and impact analysis

[502] Teguh Dertanto, 2017, Accessed 28 August 2018 via International Monteral Fund: https://www.imf.org/~/media/Files/News/Seminars/2A2_Presenter_Dartanto.ashx
[503] See UNDP, "Overview of Social Finance in Indonesia", available at: http://www.id.undp.org/content/dam/indonesia/2017/doc/INS-report1%20Allied%20crowds.pdf

In both liberalisation scenarios, the CGE model estimates that employment in Indonesia's financial services sector would decrease by 0.3 per cent for unskilled workers and by 0.2 per cent for skilled workers as a result of the FTA.

An increase in the exports of the EU to Indonesia in the financial services sector can potentially lead to the strengthening of the financial and banking infrastructure in Indonesia, which would in turn promote a higher level of financial inclusion. Financial inclusion benefits individuals in varying ways: low financial inclusion hampers the saving rate and limits people's ability to cultivate assets to have funds available in the future. Financial exclusion also has the potential to further widen the level of economic inequality in Indonesia. Access to formal banking services can have a positive impact on household finance management, particularly in the case of personal or other crises, while also supporting entrepreneurship. Access to formal financial services and the extent to which they can promote savings, as well as access to formal credit, can have an indirect impact on the promotion of human rights by enhancing food security, and access to essential goods and services including food, health and education.

An increase in bilateral exports from the EU to Indonesia in this sector is anticipated under the FTA. Increased exports from the EU in the insurance sector can lead to the development and expansion of the sector through knowledge spill-over in Indonesia. An expansion of the sector may lead to a widening of choice and more competitive products in the insurance sector. This, in view of the still developing public social security and health insurance schemes, can offer people viable alternatives to the public insurance system.

On the other hand, survey respondents have pointed out that the European banking sector and financial service providers would most likely focus on urban areas, improving services for the urban dwellers, while increasing inequality in terms of access to credit in rural and urban areas.

At the same time, as the **prospective FTA is expected to increase investments and bilateral exports in financial services, there could be more opportunities for social entrepreneurs in Indonesia to gain financing.** Furthermore, many European banks and financial institutions have comprehensive CSR policies in place that encourage the promotion of social entrepreneurship, public-private initiatives, microfinancing and thorough social impact assessments for investments. At the same time, a UNDP report suggested that, even in case of increased investments in Indonesia, the poor who lack awareness in social entrepreneurship opportunities and who have the biggest need for social enterprises' interventions, may unfortunately be the least able to afford them.[504] SMEs that are already familiar with funding opportunities and have the means to attract funds would be better positioned to obtain potential funding opportunities. **Thus, ways to promote socially responsible investments and social entrepreneurship in the context of the proposed EU-Indonesia FTA or as part of the broader bilateral partnership should be explored**. In many cases awareness raising, and training opportunities can be helpful.

8.6.3. Environmental impact assessment

Baseline

[504] See UNDP, "Overview of Social Finance in Indonesia", available at: http://www.id.undp.org/content/dam/indonesia/2017/doc/INS-report1%20Allied%20crowds.pdf

The Ministry of Finance of Indonesia has noted the limited extent of finance being directed to green lending – comprised of renewables, sustainable agriculture, green industry and ecotourism – only comprised of one per cent of the total lending going to green lending projects. This is confirmed by trends in the renewable energy sector, where the installed capacity compared to its potential is minimal. This should be interpreted in light of the hesitation of Indonesian banks to commit financial resources to sectors where the return on investment cannot be guaranteed in light of unsupportive national policies. Related to renewable energy for example, this relates to access to the grid, the many SOEs operating in fossil fuel extraction and their access to the market.

In early 2018, a new initiative was launched in collaboration with the WWF titled the "Indonesia Sustainable Finance Initiative".[505] Eight committed banks are to receive assistance with the implementation of environmental and governance risk management to improve financing quality for business sectors with high environmental and social risks. A further objective is to make use of business opportunities arising from Indonesia's climate resilient economy including waste-management, resource efficiency and renewable energy. The total value of these investments could amount to €6.8 trillion in infrastructure and green investment opportunities through private-sector initiatives and technological development.

The role banks play is in enabling the private sector and the wider public in general to adopt more sustainable business practices and instigate community initiatives through finance which could have far-reaching impacts on the Indonesian environment in the long-term. Building partnerships and developing an investment roadmap have already been initiated and pilot projects on green business models are anticipated to be implemented within the next few years.

Liberalisation and impact analysis

The FTA could play a role **to facilitate financing mechanisms of European banks in Indonesia that contribute to positive environmental impacts.** The need for technological innovation across many of Indonesia's most rapidly developing sectors has been acknowledged several times throughout this report, and the opportunities for the EU and Indonesia to collaborate to facilitate the implementation of these are plentiful. Yet at the same time, the framework around investment – in particular foreign investment – and the implications this has on green finance should be noted too: if any FTA were to make a push for green financing in Indonesia, the current concerns related to investment would need to also be addressed, as was reflected in the investment section (see **Section 7.1**).

[505] WWF, 2018, "Eight National Banks and WWF-Indonesia Launch the 'Indonesia Sustainable Finance Initiative' (ISFI)", accessed 29 August 2018 via: http://www.emsdialogues.org/wp-content/uploads/2018/07/PRESS-RELEASE-Eight-National-Banks-and-WWF-Indonesia-Launch-the-%E2%80%98Indon....pdf

9. Stakeholder Consultation Process

9.1. Stakeholder Consultation Strategy

A continuous and wide-ranging consultation process was conducted over the course of the project. An inclusive stakeholder consultation process is a key characteristic of all EU Sustainability Impact Assessments (SIAs). It serves to gain insights from a diverse group of stakeholders. These insights are used in the SIA and therefore support the FTA negotiations between Indonesia and the EU. The SIA adheres to the common methodological framework outlined in the Better Regulation Toolkit[506] and Better Regulation Guidelines.[507] The Project Team adopted a dynamic and robust methodological approach that followed the minimum standards for stakeholder consultation[508] to ensure that the process was:

- **Comprehensive**: giving all stakeholders the opportunity to express their views;
- **Balanced**: ensuring that the consultation was representative;
- **Timely**: allowing sufficient time for stakeholder inputs and contributions;
- **Tailored**: ensuring that the needs of specific target audiences were met; and
- **Incorporated**: considering all feedback and input in the study.

The **objectives** of the stakeholder consultation process for the SIA in support of the EU-Indonesia FTA negotiations were: (i) to actively engage with a diverse group of stakeholders to understand their concerns, priorities and experiences regarding the FTA; and (ii) to contribute to the transparency of the SIA analysis; and (iii) to assist with the identification of priority areas and key issues relating to the possible economic, social, environmental and human rights impacts in the negotiations. These objectives were derived from the guidance provided by the European Commission in its Handbook for Trade Sustainability Impact Assessments.[509]

The Project Team employed a wide range of consultation activities and tools to ensure a comprehensive and well-balanced consultation process. The activities and tools included a dedicated project website and electronic outreach tools, a 12-week Online Public Consultation, interviews and meetings with relevant stakeholders, Civil Society Dialogues (CSDs) in Brussels (still ongoing) and a local workshop in Jakarta.

In order to map diverse group of stakeholders the Study Team had compiled a list with key stakeholders (see in **Annex 1**).[510] To ensure their representativeness, the stakeholders have been divided as evenly as possible between the following 4 categories: academia and think tanks, civil society and NGOs, International organizations and business associations from both Indonesia and the EU.

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[506]European Commission.(2015). *Better Regulation Toolbox*. Available at: http://ec.europa.eu/smart-regulation/guidelines/toc_tool_en.htm

[507]European Commission.(2015). *Better Regulation Guidelines (SWD (2015) 111 final)*. Available at: http://ec.europa.eu/smart-regulation/guidelines/docs/swd_br_guidelines_en.pdf

[508]European Commission.(2016). *Handbook for trade sustainability impact assessments 2nd edition*. Available at: http://trade.ec.europa.eu/doclib/docs/2016/april/tradoc_154464.PDF

[509] The European Commission, 2016, Handbook for trade sustainability impact assessments 2nd edition, available at: http://trade.ec.europa.eu/doclib/docs/2016/april/tradoc_154464.PDF. The Handbook lists three specific objectives which include: (i) engaging all interested parties; (ii) contributing to the transparency of the SIA analysis; and (iii) helping to identify key issues in trade negotiations.

[510] Derived from national and regional government administrations, businesses, social partner, international organisations, civil society and research institute. The Inter-Service Group, the European Economic and Social Committee, and the Delegation of the European Union to Indonesia serve as consultation partner to identify further relevant stakeholders.

A diverse range of **consultation activities and tools** was used in support of reaching the objectives for the stakeholder consultation process for the SIA. The figure below gives an overview of various stakeholder consultation activities and tools employed in the consultation process.

Figure 5: Stakeholder Consultation Strategy

The project had 3 distinct phases: **Phase 1: Planning SIA Methodology**, which resulted in the Inception Report; **Phase 2: In-depth Research and Analysis,** which resulted in the Interim Report and **Phase 3: Conclusions and Policy Recommendations,** which resulted in the Final Report. **Figure 6** details the three main phases for the completion of the methodology. The input tasks which are required for the successful implementation of the SIA are detailed first, followed by the main outputs and a timeline of tasks for each respective phase.

Four **risks** had been identified concerning the stakeholder consultation approach: (1) low participation by major stakeholder groups in consultation process, (2) sub-optimal involvement of stakeholders in local workshop, (3) low response rate to the online questionnaire and (4) widely differing outcomes as a result of stakeholder engagement.

Mostly, these risks were to be mitigated by giving each identified stakeholder group in the process equal attention by means of follow-up emails and calls or looking for alternative option to provide input if they cannot participate at a particular consultation event. Also, to avoid the risk of participants feeling unfree to speak their mind, bilateral meetings with groups or individual stakeholders were conducted as necessary. Actively promoting activities and the questionnaire through the project channels (i.e. website, electronic newsletters) was also designed to counter the probability of low participation or a low response rate. Lastly, emphasis was put on a comparative approach when analysing stakeholder engagement.

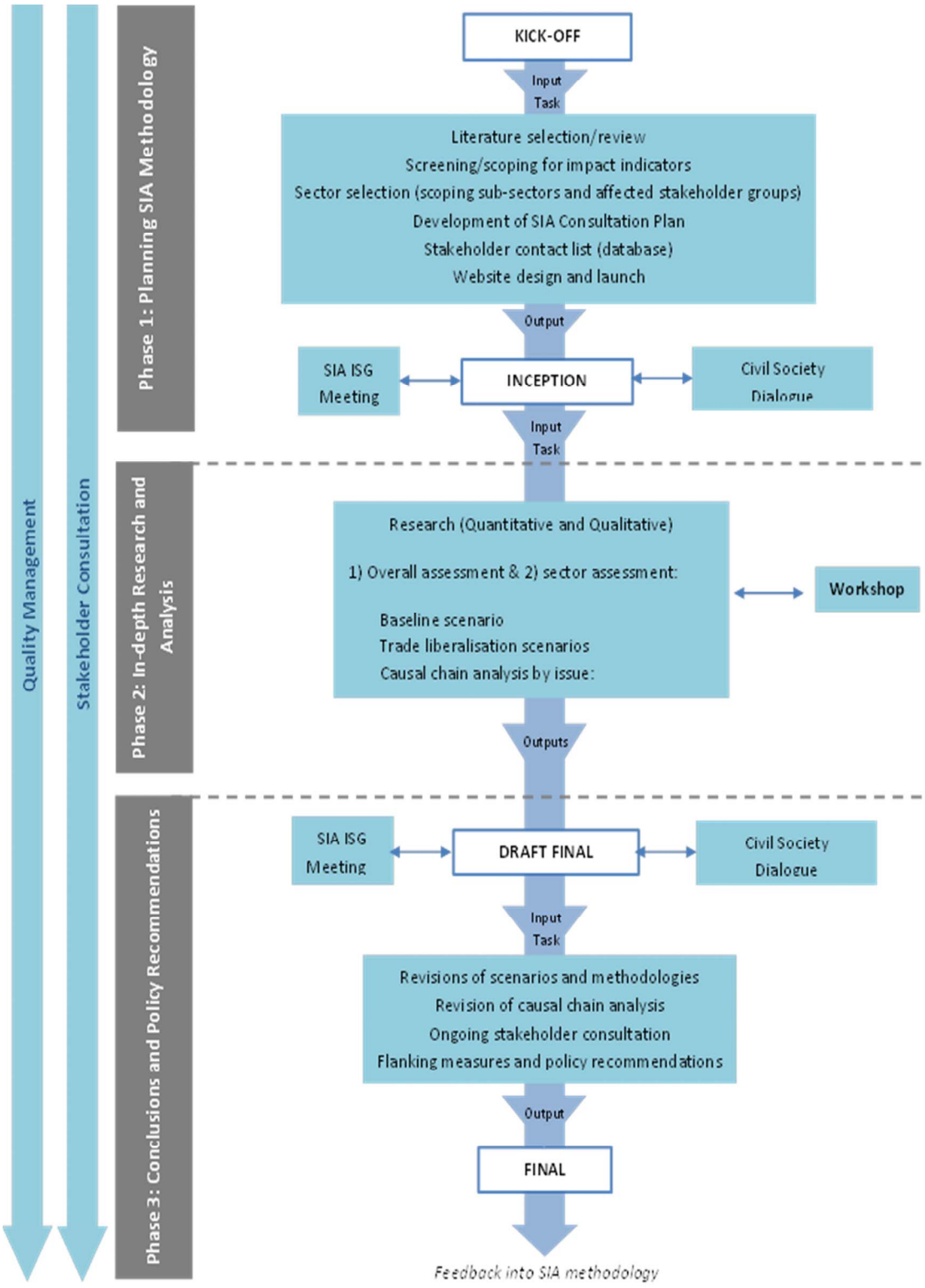


Figure 6: Project Work-Flow for Indonesia SIA

9.2. Online Presence

Communication tools used for the consultation activities included a dedicated website, which served as the main platform for conducting online consultations and informing stakeholders about the progress of the SIA. In addition to the project website, other electronic tools are used to disseminate information on the progress of the SIA, namely electronic newsletters, and social media channels such as Twitter and Facebook.

9.2.1. Dedicated website for the SIA

The Study Team designed and launched a dedicated website at www.eu-indonesia-sia.com to serve as the main platform for conducting online consultations as well as for regularly and pro-actively informing stakeholders about the progress of the SIA. The website includes the following features:

- **Publication** of all relevant information concerning the SIA's progress through uploading of reports, both in draft and final version (the final SIA report is still to be uploaded), minutes of Civil Society Dialogues and the local workshop (final report still to be uploaded), a summary on the stage of the SIA process, relevant background information and newsletters. The webpage also provided information about the SIA Project Team.
- The website has a "**News & Events**" section, which provides updated information about the progress of the SIA in terms of project implementation, particularly regarding the various stakeholder consultations activities. The section provided information on the **Local Workshop in Jakarta** as well as on the meetings with the civil society in the form of **Civil Society Dialogues** (will still be updated). The website also served as a platform to register for the local stakeholder workshop.
- The "**Survey**" page explained the objectives and the context of the dedicated online consultation questionnaires as well as provided direct links to the online surveys, which were published on the EUSurvey platform.

Figure 7: Indonesia SIA Website

- The website also features a built in "**Contact us**" section allowing stakeholders to directly contact the Study Team.
- For statistics purposes, the website also features **data collection tools** built on the website's back-end to easily collect and collate information on website usage ('hits').

The website will ensure long-term visibility of the project through its continued maintenance for 24 months following the date of approval of the Final Report. An information depository on the website will house all project documentation (reports, public meeting reports, list of stakeholders (permission based), publication/documentation sources and other outputs as approved by the Commission).

Stakeholders have been making use of the dedicated website to get further information on the SIA process. Total number of sessions since 1 June 2018 is 1,180, accounting for a total of 2,520 of page views; 84.5 per cent of these are newly visiting website visitors, while 15.5 per cent represents the returning visitors. According to the statistics, majority (26.1 per cent) of visitors were based in Indonesia, while 11.7 per cent and 5.6 per cent were based in Belgium and the United Kingdom. Other visitors came from across various Member States of the EU.

Below figure gives an overview of the website visitors since June 2018.

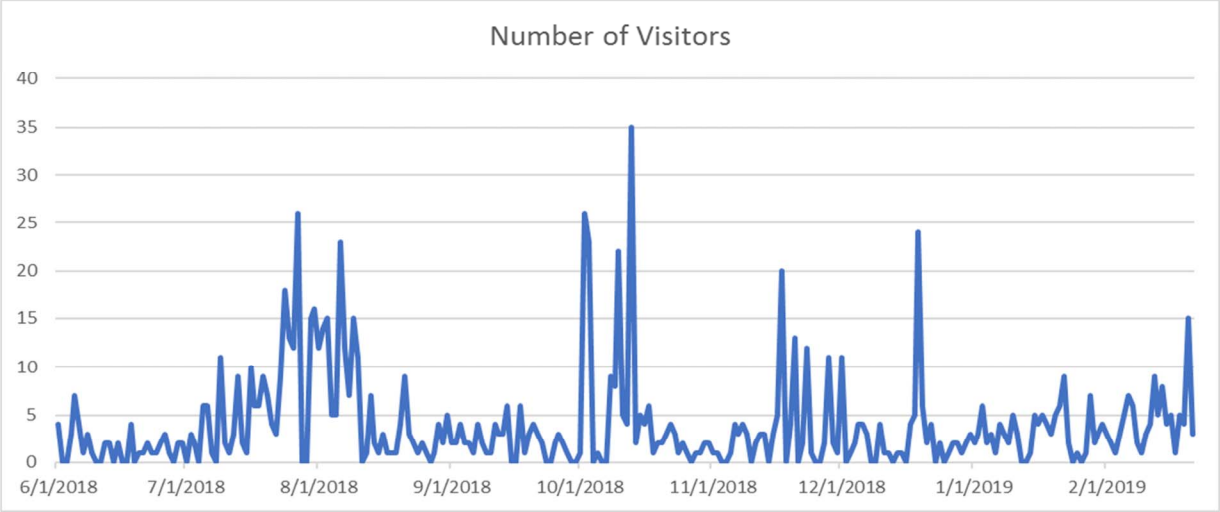


Figure 8: Number of Website Visitors (1 June 2018 - 21 February 2019)

9.2.2. Electronic stakeholder outreach tools

In addition to the project website, the Study Team maintained contact with relevant stakeholders through various other electronic tools to disseminate information on the progress of the SIA, namely electronic newsletters, dedicated e-mail address and social media channels such as Twitter and LinkedIn.

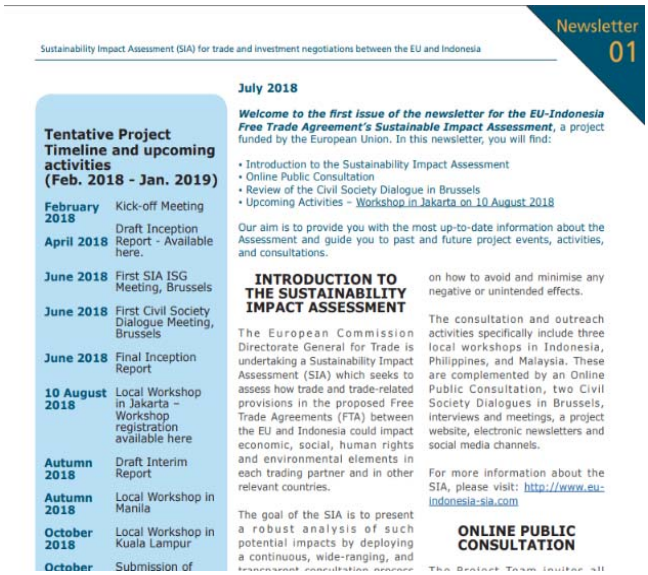
Social media

The Project Team utilised **Twitter** and **Facebook** to raise awareness of the SIA's process and to inform stakeholders on the progress undertaken in the impact assessment process.

Additionally, Facebook was used by the Study Team to maintain contact with the stakeholders and to promote relevant materials such as reports, meetings and information on the local workshops and links to relevant sections on the project website.

Electronic newsletter

Electronic newsletters were designed and disseminated electronically to the stakeholder network throughout the study. The newsletter included a summary of the ongoing SIA process, consultation activities and preliminary results of the project, as well as promoted upcoming events such as the local stakeholder workshop. The newsletter was distributed after the completion of the main milestones or before a major event like the local stakeholder workshop. The newsletter was distributed both via email within the network and was also made publicly available on the project website. Two more newsletter will be circulated to let the stakeholders know about the final Civil Society Dialogue as well as to inform the stakeholders of the completion of the study and the publication of the Final Report.


Sustainability Impact Assessment (SIA) for trade and investment negotiations between the EU and Indonesia

Newsletter 01

July 2018

Welcome to the first issue of the newsletter for the EU-Indonesia Free Trade Agreement's Sustainable Impact Assessment, a project funded by the European Union. In this newsletter, you will find:

- Introduction to the Sustainability Impact Assessment
- Online Public Consultation
- Review of the Civil Society Dialogue in Brussels
- Upcoming Activities – Workshop in Jakarta on 10 August 2018

Our aim is to provide you with the most up-to-date information about the Assessment and guide you to past and future project events, activities, and consultations.

Tentative Project Timeline and upcoming activities (Feb. 2018 - Jan. 2019)

February 2018	Kick-off Meeting
April 2018	Draft Inception Report - Available here.
June 2018	First SIA ISG Meeting, Brussels
June 2018	First Civil Society Dialogue Meeting, Brussels
June 2018	Final Inception Report
10 August 2018	Local Workshop in Jakarta – Workshop registration available here
Autumn 2018	Draft Interim Report
Autumn 2018	Local Workshop in Manila
October 2018	Local Workshop in Kuala Lampur
October	Submission of

INTRODUCTION TO THE SUSTAINABILITY IMPACT ASSESSMENT

The European Commission Directorate General for Trade is undertaking a Sustainability Impact Assessment (SIA) which seeks to assess how trade and trade-related provisions in the proposed Free Trade Agreements (FTA) between the EU and Indonesia could impact economic, social, human rights and environmental elements in each trading partner and in other relevant countries.

The goal of the SIA is to present a robust analysis of such potential impacts by deploying a continuous, wide-ranging, and

on how to avoid and minimise any negative or unintended effects.

The consultation and outreach activities specifically include three local workshops in Indonesia, Philippines, and Malaysia. These are complemented by an Online Public Consultation, two Civil Society Dialogues in Brussels, interviews and meetings, a project website, electronic newsletters and social media channels.

For more information about the SIA, please visit: http://www.eu-indonesia-sia.com

ONLINE PUBLIC CONSULTATION

Figure 9: Example of Newsletter

Dedicated email address

Through the dedicated email address eusia.indonesia@gmail.com, the Project Team received messages from stakeholders seeking to provide their input in the SIAs process or to obtain information about the project and the local stakeholder consultation workshop as well as on other stakeholder consultation activities. This e-mail address served as the primary address for getting in contact with the Study Team.

9.3. Stakeholder Consultation Activities

In order to ensure maximum input from various stakeholders, a wide range of stakeholder activities were undertaken, including Civil Society Dialogues, Local Workshop, face-to-face interviews as well as online stakeholder consultation in the form of surveys.

9.3.1. Civil Society Dialogue meetings

Contact with civil society in Brussels came from the Study Teams participation in three meetings in Brussels in the framework of DG Trade's Civil Society Dialogue (CSD) (one CSD still to be organised). These are regular meetings between civil society and the Commission to discuss aspects of the EU's trade policy. After delivering every draft report (inception, interim and final) a public meeting was organised. The draft reports were made public before each meeting.

The **First Civil Society Dialogue** was held on 05 June in Brussels after the completion of the Draft Inception Report. The objective of the meeting was to present and receive feedback on the Inception Report. The Study Team outlined the project objectives as well as the methodology that was employed in the economic, social, human rights, and environmental analyses undertaken by the Study Team. The stakeholder consultation process was also introduced, and stakeholders were encouraged to contribute to the SIAs process.

47 stakeholders from various European organizations representing the NGOs, trade and business associations and other civil society organizations took part in the consultation process. The stakeholders were mainly concerned about environmental and human rights impacts of the prospective FTA. Stakeholders like Friends of the Earth Europe suggested the Study Team to explore land governance and land rights issues related to the production of palm oil. Humane Society suggested the study team to take a closer look to exotic fish trade and Eurogroup for Animals was concerned about the trade in frog legs. The Study Team was also suggested to look closer into the impacts of the prospective FTA to SMEs.

The **Second Civil Society Dialogue** was held on 08 October in Brussels after the publication of the Draft Interim Report. The objective of the meeting was to present and receive feedback on the Draft Interim Report on Indonesia. The Study Team outlined the key interim results in economic, social, human rights, and environmental analyses undertaken by the Study Team.

Over 50 stakeholders from various European organizations representing the NGOs, trade and business associations and other civil society organizations took part in the second consultation process. The stakeholders were interested in a broad range of issues. For instance, ClientEarth encouraged the study team to take a deeper look at the impacts on land rights and Koepel van de Vlaamse Noord-Zuidbeweging was concerned about Indonesian companies' ability to move higher up the global value chain.

9.3.2. Local Stakeholder Workshop

On August 10, 2018 the **Local Stakeholder Consultation Workshop** was held in **Jakarta**. The objective of the stakeholder consultation workshop was to raise awareness of the ongoing SIA process, including the stakeholder consultation mechanism, as well as to discuss the preliminary findings of the Study Team regarding the impact of the prospective FTA/ CEPA on the four sustainability pillars.

The workshop brought together over 50 stakeholders from the business associations, academia and think tanks, and social organisations, including trade unions, non-governmental organisations, and international organisations. The event offered stakeholders the opportunity to learn more about the Sustainability Impact Assessment, to discuss the Inception Report as well as the preliminary findings of the then not yet completed Draft Interim Report with respect to Indonesia, and to share their views on the Sustainability Impact Assessment with other interested parties and the Project Team.

The workshop was moderated by the Study Team Leader Mr. Peter van Diermen and included presentations from the Study Team, followed by lively and engaging discussions and a fruitful panel discussion delving deeper into the potential impacts of the Indonesia- EU FTA in the six selected sectors. The stakeholders were actively participating in the discussions and provided many comments on the preliminary findings of the study.

Figure 10: Local Stakeholder Workshop in Jakarta

Stakeholder input from Local Stakeholder Workshop

Stakeholders expressed interest in the impacts of the FTA on the palm oil sector. According to CGE modelling results, trade in palm oil is expected to expand under the prospective FTA, and even though this would not be coupled with expansion in output, some stakeholders suggested that commitments for trade in sustainable palm oil should be highlighted in the prospective FTA. Some stakeholders requested the inclusion of measures that would prevent the incentive of illegal deforestation and – notably – palm oil industry expansion at the expense of conservation areas and protected forests, something that stakeholders fear as potential negative impacts of the prospective FTA/CEPA. Palm oil expansion in northern Sumatra and Kalimantan among others threatening the conservation areas was highlighted. Thus, tractability of palm oil would be a useful first step, however it needs to be placed into a larger framework considering trade and governance. The complicated nature of the palm oil sector was acknowledged, and some noted that certification schemes would be further complicated as the palm oil industry is characterized by many SMEs, and micro companies, especially on the level of plantations, and their ability to transform to account for more sustainable palm oil needs to be discussed in the SIA.

Monitoring mechanisms considering human rights violations were also brought up, with the example of the mining sector, where, according to civil society organizations, ambiguous legality of certain licensing procedures has resulted in the displacement of people, especially indigenous people, and affected local livelihoods. Requests for monitoring to include legal aid and preventive measures were made by the civil society organizations.

Stakeholders commented at large on the possible impacts of the prospective FTA to the most vulnerable groups in Indonesia, such as indigenous people who are often vulnerable and are less educated about the law. Thus, stakeholders were wondering to what extent the SIA can account for vulnerable and indigenous people, in relation to matters of remedies to land ownership. When analysing the prospective FTA's impacts on the vulnerable groups like

indigenous people, some stakeholders stressed the need to cover other aspects beyond labour issues, like for example environmental implications and their effects on indigenous people.

Many stakeholders were concerned about the changes in employment in Indonesia, as predicted by the CGE modelling results, fears were raised about the occupational skills mismatches of the labour force and government's ability to put appropriate policies in place to manage this. It was requested that the Study Team explores what opportunities there would be for the FTA to address the issue of skills mismatch.

Some stakeholders predicted increases in investments from the EU to Indonesia as a result of the prospective FTA and expressed concerns about the impacts of increased FDI to special economic zones, also mentioning that the national administration is developing economic zones to draw in FDI including in Central Java (Kendal Industrial Park). However, the competitive advantage of these parks is often achieved by providing the lowest wages to employees in Java. Especially in these sectors that only need to have a license in order to stimulate FDI, this is a lucrative option considering low wages (for example textile and garment). The Study Team was asked to look further into the impacts of the FTA on special economic zones.

Considering potential economic impacts of the FTA, Indonesia's opportunities to further integrate into global value chains were discussed. It was acknowledged that the prospective FTA could facilitate another step in the global value chains to attract EU firms to Indonesia – not because of cheap labour, or for standard industries like electronics or automotive, but for other factors, especially natural resources. Stakeholders explained that these sectors are often already quite prepared to make the next step in the global value chains. Furthermore, the FTA will result in reduced trade barriers for imported goods, which can be the intermediate input needed to produce higher value products, allowing thus Indonesia to integrate into EU's supply chains as MNCs can be interested to invest in Indonesia.

Many stakeholders stressed the importance of improving domestic policies in Indonesia to maximise the positive impacts of the FTA. It was mentioned that the government policy on wage setting, inflation and labour rights as well as re-distribution of wealth should be improved to benefit the largest amount of people in Indonesia. For example, the FTA is not designed to address the income gap, but this should be addressed through domestic policies, that the FTA could ultimately support. Furthermore, the stakeholders also stressed that the impacts of the FTA could vary by regions in Indonesia, benefitting some more than others, as domestic regional labour mobility remains rather rigid. Domestic policy measures are needed to maximise benefits for all.

As a follow-up to each workshop, the Project Team published workshop reports on the dedicated project website. The reports included summaries of the presentations, an overview of the stakeholder contributions to the discussions and questions. The PowerPoint presentations prepared by the speakers will be also uploaded on to the dedicated website. The workshop materials were provided to the registered participants a week before the event. The local workshop report can be found at the following link: (link to be inserted).

9.3.3. Interviews and meetings

Interviews conducted over telephone and face-to-face meetings constituted the most direct form of stakeholder engagement throughout the consultative process. Structured interviews allowed for the Study Team to interact directly with the stakeholder groups and obtain detailed information and overall experience. The Study Team invited 250 key stakeholders

from Europe and Indonesia to take part of the interviews and meetings. Overall, the project team conducted 8 face-to-face or Skype interview sessions.

The main objective of these interviews was to facilitate detailed discussions with stakeholders on the potential impact of the prospective EU-Indonesia FTA. Additionally, interviews allowed the Study Team to obtain in-depth qualitative data on the subject, and also give insight into a range of different perspectives. To ensure maximum efficiency, the Study Team developed a standard list of questions as a basis for conducting interviews while allowing a degree of flexibility to the interviewer to interact with the interviewee. Most stakeholders interviewed were given the questions beforehand, to facilitate discussions and to mitigate against potential issues raising from potential language barriers. The stakeholders were given, however, the liberty to skip questions and to express their opinion on issues most relevant to them.

Interviews were the main form of consultation when engaging with the identified stakeholders; given that response rates tend to be higher in interviews than in the alternative method of distributing surveys. A further benefit of conducting interviews is that this will also mitigate against the constraints of internet access and usage that may negatively impact the response rate to web-based feedback.

Stakeholder input from interviews and meetings

Before and after the Local Stakeholder workshop in Jakarta, 9 face-to-face or telephone interview sessions took place, where stakeholders' concerns pertaining to the economic pillar, environmental pillar as well as social and human rights pillar were discussed in a further detail.

Interviews were conducted with the following organisations:

- European Business Chambers of Commerce (EuroCham) Indonesia
- Client Earth
- Conservation International Europe
- EuroGroup for Animals
- Global Green Growth Institute Indonesia
- FES Indonesia
- Indonesia Leprosy and Disability Care Movement
- TIFA
- European Federation for Transport & Environment

The following results were drawn from the interviews:

<u>Economic impacts</u>

With regard to economic impacts, stakeholders were concerned about the capacity of Indonesian companies to internationalise and fully benefit from the prospective EU-Indonesia FTA. Business associations in Europe and Indonesia questioned the extent to which Indonesia is ready to be export-oriented beyond the regional trade relations. They explained that the business society in Indonesia, due to various reasons, is mainly inwards looking, and not too interested in exporting to other regions. Companies oriented towards exporting will mainly export to the ASEAN region but not necessarily to Europe. While business associations acknowledged the opportunities that trade liberalisation can bring, they remained largely skeptical towards FTA's ability to induce change in the business society in Indonesia, at least in the short-run.

The impacts of the prospective FTA on investments were important to several stakeholders. Some stakeholders pointed out that Indonesia still has a negative investment list in place, which acts as a barrier for investments in Indonesia from foreign firms. Increases in EU investments towards Indonesia are further complicated by the need of EU firms to go into partnership agreements with local companies in order to be active in many sectors, as defined in the negative investment list. For the European companies to maximize benefits from the prospective FTA, the FTA negotiations should therefore address barriers to investment.

Concerning investments, business associations further added that local content requirement is a big diminishing factor for investment potential in Indonesia, whereby a certain percentage must be produced locally. Business associations were worried that this in combination with the lacking feed-in tariffs for renewables specifically has limited the expansion of investments in renewable energies sector. This however is a sector where potential increases of EU investments could have positive environmental impacts in Indonesia.

From the environmental point of view, some stakeholders pointed out that an Investment Dispute System, if included in the agreement, could potentially limit policy space in Indonesia, as the Indonesian government might be afraid to legislate for the common good, or for the environment, as well as for labour issues, out of concerns of being later sued by foreign corporations.

Social impacts

With regard to the social impacts of the FTA, the work conditions in Indonesia was the main point of concern. While some stakeholders in Indonesia pointed out the positive impacts of job creation potentially coming along with the prospective FTA, they emphasised that the prospective FTA should go beyond job creation and tackle also working conditions, including working hours, union busting and non-successful wage negotiations. Stakeholders noted that while in Indonesia minimum wage and national wages earned in most sectors are often quite fine, from the employers' side wage is an easy cost-cutting area to remain competitive and make profits, notably should the FTA increase competition in Indonesia. Thus, the prospective FTA should move beyond competition and maximisation of profits, and a balance should be found, which also accounts for workers' conditions.

Stakeholders argued that ratification of the ILO Labour Conventions to improve labour conditions is the bare minimum the FTA should aspire for. They explained that implementation of labour standards as well as their enforcement remains relatively weak in Indonesia. Thus, measures are needed to address concerns about labour conditions.

Besides women, children, the rural poor and indigenous people, stakeholders also pointed out people with disabilities as one of the vulnerable groups potentially impacted by the prospective FTA. Civil society organisations stressed the need for the prospective FTA to aim for creating benefits to all layers of society, including people with disabilities whose needs risk to be overlooked.

Human rights impacts

With regard to human rights impacts, the need to protect the rights of vulnerable groups and people engaged in vulnerable sectors – for instance, mining was pointed out. Stakeholders argued that the mining sector could benefit from the use of internationally recognized standards including on the protection of human rights of vulnerable groups, that could be agreed upon as a result of concluding the FTA between Indonesia and the EU. Once international standards have been agreed to, methods of compliance and how to deal with the private sector can be discussed further. Stakeholders noted that in Indonesia, currently, capacity to deal with the private sector is still lacking mainly because of the lack of technical skills and awareness.

Environmental impacts

With regard to environmental impacts, many civil society organisations were concerned about the potential negative impacts from increased trade. However, some stakeholders also provided solutions to mitigate potential negative impacts.

Some civil society organisations were concerned that if the prospective FTA is expected to increase production or trade in rice, vegetable oils and oilseeds (including palm oil), as well as other agricultural products, the risk of further deforestation in favour of agricultural land would be increasing. Some civil society organisations further emphasised that it is also essential that the forestry provisions of the prospective FTA do not only focus on forest products but also on the impact that production of other commodities, such as palm oil, can have on forests ('forest risk commodities').

Civil society organisations were also concerned about potential increases in trade of exotic animals as well as in animal products like frog legs and animal skins a result of the prospective FTA.

As a solution to multiple environmental concerns, including deforestation and other issues, many stakeholders proposed that the FTA should advocate for a monitoring mechanism. Some civil society organisations suggested that a joint committee to monitor the process of various environmental issues could be established under the Trade and Sustainable Development Chapter of the prospective FTA. This could cover deforestation, land-use or a sector like the palm oil industry specifically. Ideally the monitoring mechanism would not only allow for both parties to exchange ideas and best-practices but would further strengthen governance beyond the initial provisions of a baseline scenario.

Some civil society organisations suggested that under a meaningful monitoring mechanism to deal with deforestation issues, independent monitoring should ideally be carried out by civil society. The role played by independent monitoring can be a very good way to improve accountability of the private sector and the government which would enhance better forest governance.

To mitigate negative impacts to the trade in exotic animals, some civil society organisations would encourage the EU to take up "positive listing" as the modus operandi in the trade of live animals and animal products.

Some stakeholders indicated that the Trade and Sustainable Development Chapter of the prospective FTA could bring positive impacts to the environment, but eventually it really depends on how strong the language and the final text of the chapter would be. Most stakeholders interviewed advocate for stronger language for the Trade and Sustainable Development Chapter of the prospective EU-Indonesia FTA, as this could mitigate negative effects of the FTA and enhance the positive impacts.

9.3.4. Written contributions

Interview setting is not always feasible for all stakeholders, especially due to time constraints many organisations face. Furthermore, many civil society organisations and business associations already have produced several reports on the most pertinent issues concerning them. Thus, the Study Team also encouraged stakeholders to provide the Team with written contributions. No restrictions were made on the nature of written contributions and stakeholders were free to submit already existing reports as well as tailor-made contributions on the impacts of the prospective FTA. All 250 stakeholders invited to participate in the interviews were also encouraged to provide written contributions to the Study Team. The written contribution option was further promoted during the Local Stakeholder Workshop as well as during the Civil Society Dialogue Meetings. Altogether, the study team received 21 such contributions (some organisations submitted more than one contribution).

Written contributions were received from the following organizations:

- European Business Chambers of Commerce (EuroCham) Indonesia
- International Federation of Inspection Agencies
- International Confederation of Inspection and Certification Organizations
- ClientEarth
- Conservation International
- EuroGroup for Animals
- Fern
- Friends of the Earth Europe
- Global Green Growth Institute Indonesia
- Humane Society International Europe
- Fediol
- Federation of European Sporting Goods Industry
- Deutsche Gesellshaft fur Internationale Zusammenarbeit (GIZ)
- SOMO
- Transport & Environment

Additional stakeholder input from written submissions

In addition to what was already discussed during the interviews and the local stakeholder workshop, stakeholders further covered economic, social and human rights as well as environmental issues in written contributions. The following observations were made:

<u>Economic impacts</u>

With regard tp potential economic impacts, several stakeholders pointed out the costs of non-tariff measures, technical barriers to trade and non-harmonized standards as one of the main issues impeding maximisation of the benefits of liberalised trade between the EU and Indonesia and suggested that main benefits to both side and especially to the SMEs on both sides would come from tackling these issues.

Business associations noted that businesses both in Indonesia and in the EU are finding that the gap between Indonesian and EU technical requirements and import procedures, particularly in relation to food products, is currently an issue amounting to a non-tariff barrier to trade in agriculture and food products between Indonesia and the EU. Business

associations thus advocates for more harmonization between Indonesia and the EU as well as for recognition of each other's standards and procedures. In this regard, business associations argue that harmonization and/or recognition of standards and certification measures within the EU-Indonesia FTA, such as health, safety and quality standards, and other certifications relating to sustainability, traceability, legality and food safety across the partner economies, is important to maximizing the benefits from liberalised trade.

Business associations also suggested that in order to maximise the benefits of the prospective FTA, greater policy transparency and certainty in the application of the NTM measures, especially TBTs and SPS measures should be promoted.

Some stakeholders recommended that the prospective FTA should aim at reducing or eliminating unnecessary regulatory differences through sharing of good regulatory practices as well as via increased open and transparent regulatory cooperation between the parties.

Some business associations also suggested that conformity of labelling specifications and requirements should be encouraged across both economies to maximise the potential benefits of the prospective FTA. Stakeholders pointed out areas for improvement, explaining that for example, the Indonesia National Standard (SNI) labels should only be attached after a shipment arrives in Indonesia, because in Indonesia there is a need to print shipment tax numbers onto SNI labels. Currently, making manual changes after the arrival of shipments is considered to be a barrier to trade.

Social and human rights impacts

Stakeholders generally noted that the prospective EU-Indonesia FTA could bring positive social and human rights impacts but warned that lack of domestic incentives to improve workers' conditions and human rights could diminish the realisation of some positive impacts. For example, some stakeholders argue that the conclusion of an ambitious FTA could provide many employment opportunities for women especially in the garment industry, thus contributing positively to their empowerment. Stakeholders explain that the garment and textile industry is an important source of formal sector employment in Indonesia, especially for women and thus expansion of this sector would allow women workers to move from informal sectors to formal sector, something that would be greatly needed in Indonesia.

At the same time, many civil society organisations acknowledged the shortcomings of Indonesia's domestic enforcement mechanisms and the dangers of economic profits from liberalised trade to outweigh the need for strengthened social protections and improved working conditions. Thus, civil society organizations advocated for cooperation mechanisms under the prospective FTA that could focus on capacity-building for national labour inspection systems and enforcement to maximise the benefits of the prospective FTA.

Some stakeholders point out that improvement of working conditions and other social issues in Indonesia could also be profitable, as Indonesia for example could experience higher export rates of fair-trade products, as there is a consumer demand for fair trade products in the EU.

Environmental impacts

Many stakeholders were concerned about the potential negative environmental impacts of a prospective FTA between Indonesia and the EU, including impacts on biodiversity, forests, land use as well as on fisheries.

Some civil society organisations expressed concerns about the potential loss of biodiversity in Indonesia as a result of the prospective FTA. They explained that increased industrial exploitation (especially in sectors like palm oil, coal and mining), continued deforestation, and increase in even some agricultural projects, could lead to the destruction of the habitats of several species, notably apes, living in Indonesia, such as orangutans and gibbons. Thus, they called for the prospective FTA to include detailed provisions on how the EU and Indonesia can work together towards developing more sustainable economic activities.

Similarly, some civil society organisations were worried that even though many EU FTAs already call for enforcement of the obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), this does not cover all illegal wildlife trade. These organisations thus remained concerned about the potential increase in trade in wildlife, including illegal trade due to the prospective FTA and encouraged the FTA to consider measures to further protect wildlife in Indonesia.

As a third major issue, stakeholders were also concerned about the prospective FTA's impacts on Indonesia's fisheries, as trade liberalization could result in overfishing and increases in illegal fishing. These stakeholders believe that the EU must improve its commitment to sustainable fisheries management in the prospective EU-Indonesia FTA, by addressing the issue of IUU fishing.

Cross-cutting issues

Several stakeholders were deeply concerned about the impacts of the prospective investment provisions on Indonesia's social, human rights and environmental developments.

Stakeholders acknowledged that an increase in FDI as a result of concluding the prospective FTA can produce wide-ranging benefits in host economies by generating employment, transferring skills and disseminating technology, generating fiscal revenues, supporting industrial diversification and productive capacities as well as contributing to local enterprise development through linkages with suppliers. They however remained concerned about the fact that FDI can also potentially have negative spill-over effects like less opportunities for domestic companies due to increased competition, creation of precarious jobs or reduction of employment as well as increase income inequality and increase in environmental degradation and pollution.

Most concerns in the area of investment relate to stakeholders fears of the inclusion of an investor-state dispute mechanism into the prospective agreement. Civil society organisations explained that in some cases, the state's obligation to comply with, for example, international human rights law or other laws may also conflict with the state's obligations vis-à-vis investors under the investment protection provisions. This could potentially limit Indonesia's policy space.

At the same time, some stakeholders were convinced that the prospective FTA could maximise benefits of the FDI by attracting green investment flows into Indonesia, especially into the Special Economic Zones. These investments could contribute to improvement of Indonesia's environment through promotion and proliferation of greentech solutions.

Palm oil

Many stakeholders were explicitly concerned about the prospective FTA's impacts on Indonesia's palm oil sector and on how developments in the palm oil sector resulting from

the prospective FTA would, in turn, impact Indonesia's social, human rights and environmental domains.

Civil society organizations were concerned about role of palm oil plantations in increasing levels of deforestation in Indonesia and encouraged the EU to commit to only importing legal palm oil. Stakeholders suggested that in order to tackle the issue of deforestation relating to the expansion of palm oil sector, as one option the FTA could commit to setting up a binding roadmap on palm oil. Such a roadmap would determine measurable objectives, such as improving governance around the allocation of land for palm oil plantations as well as clarifying and securing community tenure rights of forest communities and indigenous peoples.

Some stakeholders even suggest that in order to reduce potential negative social and environmental impacts of trade in palm oil sector, the EU and Indonesia should commit through the prospective EU-Indonesia FTA to taking steps to discourage the consumption of certain goods and products which are unsustainably produced (for example, by including unsustainable palm oil). At the same time, they also recommended that the parties should promote the production and consumption of sustainable products, especially those in export-intensive industries.

On the other hand, some stakeholders reminded the Study Team how complex the potential impacts on palm oil sector could be. Stakeholders explained that a considerable amount of palm oil production in Indonesia comes from smallholder farmers and thus contributes significantly to rural development. They warned that any significant decreases of palm oil production would potentially have negative effects on the economic development of Indonesia as well as result in significant disadvantages for the livelihood of smallholder farmers.

9.3.5. Online consultation via questionnaires

The Online Public Consultation in the form of surveys was launched on 05 November 2018 on the EU Survey platform and ran for 12 weeks, until 29 January 2019 and was further extended until 28 February 2019 due to very low response rate. Instead of a one long questionnaire, which would take a lot of stakeholders' valuable time to fill in, 3 different questionnaires were created. In addition to the general questionnaire open to all stakeholders, questionnaires specifically directed to SMEs and to consumers were also developed. The Online Public Consultation was available in English, French, German, and Bahasa Indonesia. The questionnaires were accessible via project website and were promoted via social media and electronic newsletters.

The purpose of the Online Public Consultation was to collect information, views and opinions on the effectiveness, efficiency, coherence and relevance of the Sustainable Impact Assessment in support of free trade agreement (FTA) negotiations between the European Union and Indonesia. It further provided stakeholders with the opportunity to give feedback on the likely free trade agreement's economic, social, environmental, and human rights impacts.

Through a set of tailored questions, in the general questionnaire the Study Team aimed to receive useful input from stakeholders with key knowledge in the issues pertaining to economic, environmental, social and human rights impacts of the prospective FTA. Contributions were particularly sought from stakeholders from the public sector, private sector, and social organizations, including trade unions, NGOs and international

organizations in the EU and in Indonesia. Feedback from consumers and business associations was expected for the two other questionnaires.

The Project Team had identified two major drawbacks of using the Online Public Consultation, namely the low response rate and some inherent rigidity in this form of feedback. Inevitably, in some cases the questions asked may not have been entirely applicable to the stakeholder. In order to reduce the rigidity of the questionnaires, 3 different questionnaires were developed allowing, for example, for SMEs to provide feedback to questions most pertinent to them.

In order to minimise the risks of low response rate, the Study Team followed up on stakeholders with numerous reminder emails, telephone calls and promoted the Online Public Consultation through the project's social media channels and electronic newsletters. Furthermore, the questionnaires were promoted during the local workshop in Jakarta, where paper copies of the General Questionnaire were made available to workshop participants. Similarly, the questionnaires were promoted during the Civil Society Dialogue in Brussels.

Unfortunately, despite the Study Team's best efforts to promote the online questionnaires, stakeholders' interest towards the questionnaires remained extremely low, amounting to only some responses across all 3 different types of questionnaires, rendering the Online Public Consultation not very useful for the Study Team's analysis.

9.4. Inter Service-Steering Group Meetings

To ensure that the SIA work plan stays of high relevance to the EC's initial objectives regular consultation by means of meetings with EC officials and the Inter-Service Steering Group were envisaged throughout the project. At the meetings, the Team Leader gave a detailed update on the progress of the SIA (in inception and interim phase as well as in final phase of the project). The ISSG and the Project Team furthermore discussed the Draft Inception Report and the Draft Interim Report and the necessary steps to be taken towards its finalisation. Additionally, the meetings served to discuss and work towards overcoming the challenges related to data quality and availability. The ISSG meetings took place back-to-back with the CSD meetings.

The following EU departments are represented in the ISSG:

- The Directorate General for Trade (DG TRADE);
- The Directorate General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW);
- The Directorate General for International Cooperation and Development (DG DEVCO);
- The Directorate General for Agriculture and Rural Development (DG AGRI);
- The Directorate General for Maritime Affairs and Fisheries (DG MARE);
- The Directorate General for Environment (DG ENV);
- The Directorate General for Health and Food Safety (DG SANTE);
- The Directorate General for Employment, Social Affairs & Inclusion (DG EMPL);
- The Directorate General for Energy (DG ENER);
- The Directorate General for Eurostat – European Statistics (DG ESTAT);
- The Directorate General for Taxation and Customs Union (DG TAXUD);
- The Directorate General for Legal Services (DG SJ);
- The European Commission Secretariat General; and
- The European External Action Service (EEAS)

10. Conclusions and Policy Recommendations

This chapter presents the main conclusions as well as the recommendations and/or flanking measures for the overall economic, social, human rights and environmental analyses as well as for cross-cutting sectors and sector-specific analysis. Conclusions are presented in terms of opportunities and challenges resulting from the prospective trade and investment agreement between the EU and Indonesia. Recommendations are divided into trade related measures that can be included into the prospective trade and investment agreement, and accompanying measures that could be implemented in parallel to it.

10.1. Overall Economic Conclusions and Recommendations

10.1.1. Macroeconomic and sectoral conclusions and recommendations

Opportunities

A reduction in tariffs and NTBs is expected to lead to overall increases in welfare, GDP and trade (overall and bilaterally) for both the EU and Indonesia. The size of these gains is projected to be positively correlated with the degree of liberalisation, with greater removal of tariffs and NTBs projected to lead to larger increases. The size of the ultimate impact is likely to be heavily influenced by the extent to which non-tariff barriers are eliminated, making provisions pertaining to, *inter alia*, TBTs, SPS, customs and trade facilitation, rules of origin, and investment of notable significance to the eventual outcomes that arise as a result of the agreement.

Specifically, the study's CGE model projects significant increases in output and exports of industrial products from the EU. Sectors particularly likely to experience gains include: motor vehicles and parts, paper and paper products, chemical, rubber and plastic products and machinery. Growth in exports is expected to predominantly arise as a result of newly created trade opportunities arising from improved access to the Indonesian market. For Indonesia, significant increases in output and exports of textiles, apparel and (especially) footwear is expected to arise, coinciding with greater integration with the EU's global production chain of these products.

For agri-foods, the model predicts that the agreement could lead to increased global and bilateral exports of dairy and alcoholic beverages from the EU . These impacts are expected to arise from tariff removal but may be further influenced by the removal of non-tariff barriers bilaterally affecting trade in agri-foods. Growth in bilateral exports of processed foods (potentially fisheries products) and palm oil is similarly expected to occur for Indonesia. In the process, diversion of Indonesian exports of palm oil away from third countries may occur, while the palm oil output would slightly decrease.

The agreement's impact on services is likely to result primarily from investment and from growth in demand of services that cater to industrial activity. For Indonesia, the agreement may stimulate growth in foreign investments – either directly by improving EU access and/or investment protections or promoting investment from third countries wishing to benefit from preferential access to the EU. Such an outcome could help facilitate upgrading of infrastructure.

Challenges

While the overall gains are projected to be positive, certain sectors are expected to experience declines in output and/or overall exports. For the EU, declines in output and overall exports are projected to arise in textiles, apparel and footwear. Third countries may, in turn, see a decline in their export of these products to the EU. Among other factors, rules of origin will be important in shaping the ultimate impact. Indonesia is estimated to see declines in motor vehicles and parts, machinery, paper and paper products, chemical, rubber and plastic products and metal products.

Recommendations

Based on the potential impacts foreseen by the quantitative modelling and listed above, the Study Team puts forward the following recommendations.

Trade-related measures

Recommendation 1: As the ambitious liberalisation scenario results in greatest gains to both sides, the two negotiating teams should seek to conclude an agreement that results in the greatest degree of liberalisation possible. This relates to the removal of tariffs but also, in particular, removal of non-tariff barriers to trade. This includes with respect to provisions of the chapters on SPS, TBT and trade facilitation (discussed further below).

Recommendation 2: In terms of tariffs, it is recommended that the agreement provides for phasing in of reductions, with consideration given to allowing for lengthier transitions for products where economic impacts and adjustment costs are expected to be greater. For the EU, this would relate to products such as textiles, apparel and footwear and for certain sensitive agricultural products. For Indonesia, lengthier transitions provided for industrial products such as motor vehicles and machinery may be in the interest of promoting economic and social sustainability objectives under a full liberalisation scenario.

Recommendation 3: To facilitate trade in agri-food products, it is recommended that negotiators include provisions permitting prelisting of establishments within the agreement's chapter on SPS measures. It is further suggested that the chapter include a provision which requires pest risk assessments to be undertaken "without undue delay" upon request of the exporting Party. To further assist in the export of animal products, it is also suggested to include provisions that ensure both Parties recognise OIE standards as the basis for determining animal health status. The chapter should also seek to promote greater bilateral cooperation in the area of SPS and animal welfare. This should include EU assistance in helping to strengthen Indonesia's capacity in risk management and food safety.

Recommendation 4: With respect to technical barriers to trade, it is recommended that negotiators include provisions for greater application of international standards by Indonesia within its national technical regulations and greater transparency in notification procedures. To facilitate trade and reduce costs (particularly for SMEs), it is further suggested that to the agreement limits burdens of conformity assessments by having the chapter on TBTs recognise a risk-based approached and acceptance of supplier declarations for products classified as low-risk within the chapter's annex. Further, negotiators of both parties should seek to include provisions that establish common principles by which third-party conformity assessments may be undertaken.

Recommendation 5: Within the agreement's chapter on customs and trade facilitation, it is recommended that both sides' negotiators seek to include provisions that limit the use of pre-shipment inspections as defined in the WTO's Agreement on Pre-shipment Inspection. To assist in implementation of the chapter's goals of modernisation and simplification in

customs formalities and procedures in Indonesia, it is further suggested that the agreement establishes, or otherwise takes into account, a framework for cooperation and capacity building between the two Parties.

Recommendation 6: In the provisions on services and investment, the removal of behind-the-border barriers, strengthening and promoting investor confidence should be emphasised as most gains are likely to occur through elements dealing with investment and establishment. Specific provisions could include extension of national treatment to all covered services with respect to establishment; prohibitions on quantitative or qualitative limitations on foreign enterprises operating within covered sectors; and further removal or increases to foreign equity caps currently in place within Indonesia as well as prohibitions on future enactment of such restrictions.

10.1.2. Conclusions and recommendations on impacts on third countries

Opportunities and challenges

Overall impacts on third countries and the outermost regions are expected to be rather limited. Some trade diversion is expected in the sectors of vegetable oils and oilseeds (namely palm oil), textiles, wearing apparel and leather and products. Nevertheless, it should be flagged that there could be potentially negative consequences for some developing countries in case trade diversion results in less trade with the EU and Indonesia and exclusion from global value chains in areas they might be most vulnerable, like agriculture products and textile and wearing apparel sectors.

Recommendations

Accompanying measures

Recommendation 7: As some trade diversion could occur, especially in the textile and wearing apparel sector, it is recommended for the EU to consider Trade Related Technical Assistance (TRTA) support to those LDCs and SIDS that are reliant on textiles, clothing and footwear, and also fish product exports to the EU (e.g. Ethiopia, Lesotho, Mauritius, Rwanda, Cambodia, Myanmar, Fiji and Papua New Guinea, etc..) on a needs basis.

10.1.3. Conclusions and recommendations on impacts on SMEs

Opportunities

The analysis shows that both European and Indonesian SMEs could potentially benefit from the prospective FTA under both the conservative and the ambitious CGE modelling scenarios. European SMEs would find more opportunities in motor vehicles and parts as well as in other machinery sector, while Indonesian SMEs are expected to have more opportunities in the textiles, apparel and leather sectors. Increased trade between the EU and Indonesia would create opportunities for both Indonesian and European SMEs to further integrate into global value chains. It is expected that most benefits to Indonesian SMEs would come from integration into the EU's global supply chains.

E-commerce is identified as a sector where SMEs are often competitive and find opportunities to internationalize and to integrate into global supply chains. If adequately covering e-commerce, the prospective FTA could be beneficial for SMEs that want to operate both in Indonesia and in the EU by increasing cross-border trade.

Challenges

Due to Indonesia's comparative advantage in the textiles, apparel and leather products, these sectors are expected to experience a slight decline in output in the EU, thus leading to potential competitive challenges to European SMEs.

SMEs tend to be more affected by the results of the negotiations in non-tariff related measures (NTM) than their larger counterparts, because the fixed costs of complying with regulations and other measures are higher for SMEs than for larger firms as they have less finances available and a limited economy of scale benefit for such investments, thus economic benefits to SMEs will largely depend on the outcome of negotiations in NTM.

Complicated and costly customs procedures and import-export requirements as well as trade licensing requirements are known to disproportionately affect SMEs, as the costs of compliance and administrative burden would be higher for SMEs as they do not benefit from economies of scale. Stakeholders have therefore stressed that the impacts on SMEs are much dependent on the facilitation of customs and export-import regulations and procedures.

Stakeholder consultations revealed that Indonesian SMEs and especially micro enterprises lack the awareness and know-how of exporting, especially outside of the ASEAN region. The complexity of regulations and import-export procedures discourages many Indonesian SMEs from internationalizing. Furthermore, unfamiliarity with each party's regulations and procedures further discourages both European and Indonesian SMEs from internationalizing. In addition, lack of awareness on opportunities in each partner's market could potentially diminish the expected positive impacts from tariff reductions under the FTA for both European and Indonesian SMEs.

Recommendations

Trade-related measures

In addition to striving for further alignment of standards of the two parties with international standards (addressed in **Recommendation 4**) which would especially benefit the SMEs, the study recommends the following.

Recommendation 8: As SMEs could greatly benefit from an agreement on e-commerce, as explained in **Section 3.5**, allowing them to better integrate into global supply chains, the FTA should include a comprehensive chapter on e-commerce between the EU and Indonesia. The objective of the chapter should be to facilitate cross-border e-commerce trade, to avoid excessive regulation in the field of e-commerce and to create a level playing field for the SMEs on both sides, while upholding the principles of data privacy and consumer rights.

Accompanying measures

Recommendation 9: Both parties should consider **cooperation and capacity building** regarding SMEs to maximise the positive impacts on SMEs. As one of the major factors impeding both European and Indonesian SMEs from internationalizing and utilizing the benefits of the FTA is the lack of awareness on opportunities in each partner's market and confusion about the complex rules, both parties should explore ways of cooperation on SME assistance. This could be done via establishing SME Contact Points or through establishing an SME Dialogue as well as via reinforcement of other existing SME programs such as the EU-Indonesia Business Dialogue, the EU-Indonesia Business Network, or ARISE Plus Indonesia. Both parties should also consider ways of explaining the content and functioning of the FTA to the SMEs in order to raise their awareness of the potential benefits of the

prospective FTA. In this regard, the European Commission should also consider cooperating with the corresponding authorities in Member States to ensure they are able to communicate provisions from the FTA to their SMEs through already established mechanisms such as Enterprise Europe Networks.

Furthermore, to help the SMEs and especially the micro-companies to integrate into global supply chains, as most benefits for the SMEs would come from supply-chain integration, the parties should consider ways to **facilitate the development of programs that would assist SMEs to integrate effectively into global supply chains**. It is also recommended that the European Commission and Indonesia cooperate to promote programmes to build capacity in Indonesia for SMEs linked to R&D and innovation as well as to promote start-up, incubator and entrepreneurship schemes linked to exporting.

As an **accompanying measure**, the European Commission should also consider creating a **single information point (a website)** where European SMEs could gather information about market opportunities in Indonesia and the EU-Indonesia FTA provisions as well as to provide information on import-export procedures and business culture in Indonesia. It is also recommended that the European Commission considers establishing an **EU-Indonesia SME Helpdesk**, which could support and manage the website. The Helpdesk could be similar in structure to the EU SME Centre in China, providing also trainings and drafting comprehensive industry-specific reports.

The objectives of capacity-building measures include awareness raising on market opportunities on both sides, awareness raising on export-import procedures, creating and supporting programs that facilitate SME internationalisation as well as SME-integration into global value chains.

10.1.4. Conclusions and recommendations on impacts on trade facilitation and rules of origin

Challenges and opportunities

The scale of gains on both sides resulting from the agreement will be significantly affected by the rules of origin and the preference utilisation rates that arise. As observed in research on existing EU preferential agreements, it is not expected that exporters on both sides would make full use of the preferences afforded by the agreement.

The agreement's rules of origin may limit expected impacts on certain products. This is likely to be particularly relevant to the model's predicted estimates for textiles, wearing apparel and footwear, since the agreement is expected to apply strict rules and Indonesia may continue to rely on sourcing a significant portion of intermediate inputs from countries which would not be covered under the agreement's rules of cumulation (such as China).

The Indonesia National Single Window (INSW) is anticipated to be strengthened as a nationwide integrated system for supervising and implementing customs procedures into the ASEAN single window, which could improve the capacity of customs authorities to properly implement the RoO. The lack of congruence between national and international standards has the danger of restricting trade by increasing the cost of compliance, certification and conformity for both imports and exports. The current exclusive use of mandatory SNI even in the case of products that comply with international standards – raise substantially both financial and time costs, without providing substantial gains for the domestic industry or better safety, health or environment standards for consumers.

Recommendations

Trade-related measures

Concerning the customs capacity to implement the rules of origin, the following is recommended:

Recommendation 10: To facilitate trade and maximise the positive impacts of the FTA, both parties should focus on **simplification of customs procedures and on customs capacity building with regard to implementation**. In this regard, both EU and Indonesia should work together towards agreeing on a set of product-specific rules, guided by the principles of non-alteration, self-certification and administrative cooperation. This should be complemented by clear definitions and criteria for goods to qualify as "wholly obtained products" and "sufficiently worked or processed products". Finally, agreed Rules of Origin could be based on the GSP rules while taking into account the latest developments in EU preferential rules of origin

Furthermore, to facilitate trade flows, parties should commit to simplified, transparent and efficient custom procedures. Considering the difficulties of Indonesian custom authorities to effectively implement origin certification, the Parties should consider already existing bilateral mechanisms that can be utilised to strengthen custom processing capacity, as well as agreeing on new administrative cooperative measures. Progress in the area of customs capacity is crucial for raising Indonesia's competitiveness, ensuring a predictable trade environment and expanding bilateral business opportunities.

In addition, certifying rules of origin should be further harmonized and integrated within other agreed regional mechanisms such as ASEAN single window. In this regard, Indonesia's INSW should be strengthened, as a nationwide integrated system for supervising and implementing customs procedures. Nevertheless, the agreement should promote enhancing the implementation of customs-clearance automation in most ports of entry, alongside the digitalization of documents and prior-arrival processing. In addition, in order to address the concerns of long dwelling times, it is recommended for both sides to commit to simplify and streamline custom procedures, by shifting parts of the supervision mechanism to a post-border stage and minimizing unnecessary requirements.

Concerning the use of international standards, the following is recommended:

Recommendation 11: Aiming to reduce the costs of compliance, provide a non-discriminative trade environment and eliminate unnecessary burdens for exporters on both sides, the prospective FTA should strengthen conformity to the principles of WTO *Technical Barriers to Trade Agreement*. Therefore, it should prevent, as much as possible the use of national technical standards diverging from international standards unless one side can clearly demonstrate their better suitability for reaching legitimate goals. Furthermore, the FTA should urge both sides to pursue harmonization with international standards such as Codex Alimentarius; UNECE; ISO; IEC etc. Nevertheless, parties should commit to simplifying and streamlining testing requirements, in accordance with international practices, as well as to transfer from "pre-market approval" stage to "post-market surveillance". Bilateral and public channels of information should be further improved. Such measures would reduce export-import costs, enhance trade volumes and increase particularly Indonesia's competitiveness on global markets.

Recommendation 12: The FTA should encourage both parties to work towards the recognition of international mechanisms for accreditation and conformity assessment. Indonesia should be encouraged to expand the list of FFPO-recognised countries and admit certificates issued by ILAC-accredited laboratories. Nevertheless, by engaging in ASEAN Mutual Recognition Agreements, Indonesia could further promote the acknowledgement of SNI by other countries. This would be especially important in the case of the automotive industry.

Accompanying measures

Recommendation 13: Above recommendations should be accompanied by cooperative initiatives, for instance in the form of **capacity building and sharing of best practices**. EU's technical assistance would contribute to enhancing Indonesia's efficiency in implementing standards and would be particularly useful in improving the capacity of Indonesia's national testing facilities and related infrastructure. Furthermore, both parties could establish joint measures aimed at empowering Indonesian exporters to better adapt their products in line with international requirements. Nevertheless, the parties could work towards better communication and mutual consultation regarding changes in standard technical requirements, conformity assessment procedures and fees, ensuring transparency for all actors involved.

10.2. Overall Social Conclusions and Recommendations

Opportunities

The prospective FTA is expected to increase wages both in the EU and in Indonesia, for both skilled and unskilled workers. Increased wages mean better living standards for people on both sides.

The prospective FTA is also expected to result in the increase of GDP in both Indonesia and the EU. Indonesia's GDP is expected to increase by roughly 4.6 billion euros in a conservative scenario and by roughly 5.2 billion euros in an ambitious scenario. For the EU, more modest increases are expected: roughly 2.5 billion euros and 3.1 billion euros in a conservative and ambitious scenario respectively. Increases in GDP are expected to have positive implications on many social aspects, especially in Indonesia including education, living standards and social protections, depending of course on the direction of government's policies.

The prospective FTA is expected to cause shifts in employment and as a result of this, several sectors on both sides could see significant job creation. Approximately 126,000 to 294,000 jobs could be created in Indonesia's textile and wearing apparel sector as a direct result of the prospective FTA. This in turn could increase women's labour participation by offering job opportunities to many women in Indonesia. In the EU, on the other hand, most job creation is expected to take place in the motor vehicles and parts sector, whit estimates of approximately 2,800 additional skilled and unskilled rather well-paid jobs being created in the sector.

Expected dissemination of CSR/RBC practices in Indonesia due to increased EU investments under the prospective FTA could potentially have positive impacts on working conditions in Indonesia. Similarly, potential provisions like implementation of ILO Labour Conventions as well as ILO Decent Work Agenda in the Trade and Sustainable Development Chapter of the

EU-Indonesia FTA could potentially have a positive impact on the working conditions in Indonesia.

Challenges

On the flip side, shifts in employment caused by the prospective FTA are also expected to create losers in terms of sectoral employment on both sides. The prospective FTA could thus result in decreases of employment by 4000 workers in the EU's textile sector, by more than 5000 workers in the clothing sector and by an additional 5000 thousand in the leather and leather products industry. SMEs are feared to bear the brunt of these job losses. Similarly, the prospective EU-Indonesia FTA would result in a shift of about 60,000 workers out of the automotive sector in Indonesia, which would mean a significant loss of well-paid jobs in the country.

Shifts in employment are feared to exacerbate Indonesia's already existent problem with skills mismatch. Concerns have especially been raised about the ability of Indonesia's domestic policies to cope with increasing demand for Technical and Vocational Education and Training programs to address the issue of skills mismatch. Skills mismatch is also expected to occur in the EU albeit on a lesser scale. Moreover, the EU would be more prepared to address the issue of skills mismatch through various Technical and Vocational Education and Training measures like the Closing Skills Gap project.

Trade liberalisation could also have negative impacts on working conditions in Indonesia as trade under the prospective FTA would result in increased demand for employment in sectors historically less likely to meet decent working conditions including textile, wearing apparel and the leather industry. Rapid expansion of these sectors could have negative impact on working conditions at least in the short-term. It is also feared that vulnerable groups, including women and children would bear the brunt of this. Concerns also exist as to working conditions in the fisheries, palm oil and mining sector.

Recommendations

Trade-related measures

Recommendation 14: As the prospective FTA would cause notable shifts in employment resulting in some potentially negative social impacts from job losses and from the issue of skills mismatch, which is especially pronounced in Indonesia, the parties are encouraged to take measures to mitigate the potentially negative impacts related to shifts in employment. The mitigating measures could include **transition periods in tariff dismantlement** in case of full liberalization as well as **technical assistance** (see also recommendation 2).

- To mitigate Indonesia's loss of well-paid jobs in the motor vehicles sector, parties should consider a transition period for the full tariff liberalization for the motor vehicles and parts sector.
- Similarly, as fisheries sector is important to Indonesia in terms of employment and especially in terms of employment for the most vulnerable groups, parties should consider a transition period in case of full tariff liberalization for the fisheries sector.
- As the prospective FTA could result in job losses in textile, leather products and wearing apparel sector in the EU, a transition period for the full tariff liberalization could also be considered in these sectors.
- **In parallel to the FTA**, the European Commission should consider expanding safeguards and cooperative mechanisms to ensure employment transitions arising from the prospective FTA are accounted for within the EU as well as in Indonesia. This could include capacity development assistance from the EU to the national Technical and Vocational Education and Training system and Technical and

Vocational Education and Training providers. Furthermore, as the EU would be in a good position to assist Indonesia, the European Commission should consider technical assistance to Indonesia in the area of **Technical and Vocational Education and Training** to improve the skills mismatch issue in Indonesia.

Recommendation 15: As some concerns remain about the potential negative impacts of the prospective FTA on working conditions in Indonesia, both parties should take measures to protect workers' rights and improve working conditions, especially in Indonesia, through implementation of international labour conventions. It is important that these would be included in the Trade and Sustainable Development Chapter of the FTA as this way an FTA can offer an additional governance framework and a reference point for improved labour standards. Therefore, the Trade and Sustainable Development Chapter should include a clause encouraging both parties to ratify and implement all relevant **ILO Labour Conventions** including also the Work in Fishing Convention No.188 (2007) and the ILO Convention No. 182 on the Worst Forms of Child Labour (1999) as well as call parties to adhere to the **ILO Decent Work Agenda**.

Furthermore, the Trade and Sustainable Development Chapter should also encourage both parties to develop and establish a normative framework that ensures the protection of working conditions for most vulnerable groups including: among others, women and victims of gender-based violence, young adults, indigenous populations, those with disabilities, and people of an ethnic, religious, linguistic or gender-minority.

Besides providing a normative framework for legislation, the Trade and Sustainable Development Chapter should also include **measures to support corporate and private sector accountability**, including for instance gender equality, disability inclusiveness, child labour awareness throughout the supply chains. The Trade and Sustainable Development Chapter should call both parties to promote internationally agreed CSR/RBC principles including UN Guiding Principles on Business and Human Rights, the UN Global Compact's principles and the OECD's Guidelines for Multinational Enterprises. The objective is to give visibility to the role of public authorities in encouraging investors and partners as well as banks to engage in responsible business by promoting international principles.

Recommendation 16: as the Study finds that despite having rather comprehensive labor laws in place, in some cases Indonesia still lacks the capacity to monitor and enforce these laws, the Trade and Sustainable Development Chapter should call on the parties to **cooperate in capacity building and sharing of best practices** for monitoring and enforcing labour laws.

Furthermore, in order to also engage the corporate and business sector, the EU and Indonesia should cooperate in capacity building and sharing of best practices in supporting EU and Indonesian companies trading in vulnerable sectors, such as palm oil, fisheries, mining and the GTF sector.

Accompanying measures

Recommendation 17: To maximise the positive impacts of the prospective FTA and to further minimise the negative impacts, it is recommended that **in parallel to the FTA** the European Commission could consider **supporting various social programs/projects in Indonesia** in cooperation with the ILO to focus on the improvement of working conditions. Since informal sector employment as well as employment in special economic zones raises concerns in Indonesia, where working conditions remain worrisome, the EU's support in these areas would be especially beneficial to Indonesia.

A key objective of this cooperation, which could also be pursued or further articulated **in parallel** to the FTA, would be to especially strengthen the capacity and enforcement of labour-inspections regarding for instance:

- Assurance of (regional) minimum wage;
- Assurance of health care insurance (BPJS I), accidents insurance (BPJS II), commitments to working hour regulations, to pay overtime, and to provide safe work environments; adherence to labour laws; and
- Involvement of labour unions in work place assessments and other labour rights related matters.

Capacity building and sharing of best practices should focus especially on the most vulnerable sectors like fisheries, palm oil, mining and clothing and wearing apparel sectors as well as on enforcement of labour laws in special economic zones.

To encourage and institutionalise cooperation, the EU and Indonesia should consider establishing an **EU-Indonesia Labour Dialogue**, which could be similar to what the EU currently has with Thailand. The objective of the Dialogue should be to promote decent work through closer cooperation, exchange of best practices and mutual learning.

10.3. Overall Human Rights Conclusions and Recommendations

Opportunities

Overall, the EU-Indonesia FTA could contribute to an enabling environment for both parties to uphold their commitments under the multilateral human rights agreements to which they are signatory.

The prospective FTA could contribute to the advancement of human rights in Indonesia. The role of EU companies as traders or investors in the market, which would likely increase because of a successful FTA, can introduce and further advance more robust human rights compliance practices in the private sector, as well as foster other initiatives in this area through CSR and RBC practices. This development can provide an additional governance framework and reference point for the Indonesian authorities and business networks to advance their own policy, regulatory and compliance frameworks.

As the FTA is expected to accelerate the rate of women's participation in Indonesia's workforce, the FTA could contribute to the improvement of women's rights through increased equal and inclusive opportunities for women.

Challenges

While the FTA is expected to have some positive impacts on the enjoyment of human rights in Indonesia, the occurrence of negative impacts is also feared. Considering Indonesia's rather weak implementation of national laws on indigenous peoples' land rights, potential expansion of sectors where concerns on land rights are particularly relevant, such as forestry and wood products, could run the risk of increased human rights violations, as raising profits could disincentivize the improvement of enforcement mechanisms for indigenous people's land rights by both the private and the public sector. However, as production of palm oil is expected to slightly decrease, no negative impacts on indigenous people's land rights are expected to occur in this sector. Similarly, the CGE modelling exercise does not give basis to assume notable increases in mining products, thus excluding major impacts to indigenous people's land rights in this sector as well.

Impacts on vulnerable groups' rights to food are expected to be minimal and only to occur in cases of external shocks – both market shocks and environmental shocks related to poor harvests.

The expansion of textile and wearing apparel industry as well as some agricultural sectors, which have reported cases of child labour, could lead to potential increases in the use of child labour under the prospective FTA. The expansion of textile and wearing apparel sector could also additionally put a strain on the capacity of the authorities and the judicial system in Indonesia to protect and enforce women's rights.

Furthermore, stakeholders have expressed concerns that strengthening of IP rights and their enforcement could potentially negatively impact access to affordable medicines and right to health in Indonesia. Especially the most vulnerable groups, including the poor, indigenous peoples and migrant workers could be adversely impacted.

Recommendations

Trade-related measures
In addition to promoting the UN Guiding Principles on Business and Human Rights, OECD Guidelines for Multinational Enterprises and the United Nations Global Compact, which are pertinent to the protection of human rights and were addressed in **Recommendation 15** under the social sector, the following is proposed:

Recommendation 18: As challenges are expected to continue to exist as to the human rights situation in Indonesia, to enhance the positive impacts and to minimise negative impacts, the FTA could contribute to **strengthening the normative human rights framework**. Notably, to this end it is recommended to both parties to include in the Preamble of the FTA a clause recalling the State's duty to protect and promote the rule of law and call for the parties to respect and ratify the United Nations international core human rights conventions and their optional protocols (all 9 of them). The preamble should also commit the parties to respect democratic principles and human rights, as laid down in the UN General Assembly Universal Declaration of Human Rights and in other relevant international human rights instruments.

Furthermore, for human rights that are also labour rights it is recommended that specific references are included in the Trade and Sustainable Development Chapter of the FTA. Namely, with regard to Indigenous Peoples, the Chapter should make special reference to the ILO Convention No. 169 on Indigenous and Tribal Peoples.

Accompanying measures

Recommendation 19: Similar to labour laws, Indonesia's enforcement of human rights is relatively weak. Therefore, to address potential human rights concerns, it is also recommended that the EU and Indonesia **cooperate in capacity building and sharing of best practices** in the domain of human rights enforcement. Thus, **in parallel to the FTA**, it is recommended that both parties remain committed to the Human Rights Dialogue, which has been held between the EU and Indonesia within the framework of the Partnership and Cooperation Agreement between Indonesia and the EU. Furthermore, it is recommended that the parties focus through the Human Rights Dialogue on the protection of the rights of the most vulnerable groups, focusing on Indigenous peoples' rights, including their right to customary land as well as on women's and children's rights.

In addition to the established **Human Rights Dialogue**, it is recommended that the EU and Indonesia consider other means of cooperation in the field of human rights, especially the rights of indigenous people, women and children and other vulnerable groups to share best practices of drafting laws, Action Plans and strengthening the enforcement of human rights within the existing legal framework. In this regard, the European Commission should consider supporting civil society organisations and their projects relating to the rights of the vulnerable groups. The European Commission could consider cooperating with the following groups on the projects relating to the protection of the rights of most vulnerable groups:

- National Human Rights Commission (Komisi Nasioanl Hak Asasi Manusia - Komnas HAM)
- Indonesian Child Protection Commission (Komisi Perlindungan Anak - KPAI)
- National Commission concerning Violence Against Women (Komisi Nasional Anti Kekerasasn terhadap Perempuan - Komnas Perempuan

Recommendation 20: As certification schemes can be good means of protecting social and human rights of workers in some sectors like the palm oil sector, as well as people affected by these sectors, **in parallel to the FTA** the Parties should consider cooperating in strengthening the RSPO certification scheme and the Indonesia Sustainable Palm Oil certification scheme's protection of human rights, including the customary land rights of indigenous people. Support to other certification schemes including in the mining sector or in the GTF sector, as well as assistance in monitoring certification schemes should also be considered by the European Commission.

10.4. Overall Environmental Conclusions and Recommendations

Opportunities

Environmental analysis concludes that since the prospective FTA would change the composition of current trade relations between the EU and Indonesia, placing greater emphasis on some products over others due to elimination of barriers, several environmental implications may surface.

A possible technological effect arising from the conclusion of the FTA could have an off-setting effect on potentially negative environmental impacts provided that investment liberalisation would be a component of a future agreement. This could translate into a wide variety of fields of technological innovation, including:

- GHG emissions: renewable energy, emissions capturing, e-vehicles as well as transport and public works among others, to lower emissions and reduce pollution.
- Water-quality: improved waste-water treatment, sanitation and water accessibility.
    - In the clothing, textile and wearing apparel sector: demand for compliance is partly driven by consumers in Europe, technological advancements could thus pressure European brands to ensuring their suppliers are able to meet these requirements – including on limiting water usage and pollution.
- Waste-management: technology could help minimise the cost by reducing waste generated along the production-line, or to feed it back into the production process including resource extraction from wastes for new production processes, remanufacture, recycling, waste-to-energy solutions etc.

To meet environmental standards, support for existing sustainability certification schemes (e.g. on timber and palm oil) and an expansion to other commodities as well could be considered for both parties to guarantee negative environmental implications are to be minimised with increased production, especially for those commodities that have a higher

risk to pose indirect risks to LUCF and unauthorised uses of forests. Options flagged in this regard include rubber, cocoa, meat and dairy.

For Ecosystem Services, Biodiversity and Protected Areas: positive listing of tradable animal species (both live animals and products derived thereof) could decrease CITES-listed species entering trade at the stages of sourcing and origin establishment, stockpiling, and customs procedures. Furthermore, the prospective FTA could contribute to both parties' respective commitments under the Paris Agreement, as well as contribute to more cost-effective and resource efficient global value chains.

Challenges

The EU would see an expansion of its emissions of CO2 by 0.408 MT under a conservative scenario and by 0.534 MT in an ambitious scenario. This compares to 1.486 MT and 1.655 MT for each respective scenario for Indonesia. This can be attributed to an increase in production (scale effects) under the prospective FTA or using the resources the relevant value chains rely on.

Expansion of water-intensive industries including textile, leather and wearing apparel in Indonesia could potentially lead to degradation of water quality in Indonesia due to this sector's high reliance on water, fossil fuel and chemicals leading to decreased water-quality and waste-water on top of other environmental hazards (including generation of solid waste). Suppliers of also European brands have been unable to manage their effluence and discharge to levels initially targeted.

The prospective FTA is expected to induce increases in the Indonesian output of certain commodities that could prove worrisome for land use change and forestry (LUCF) in the medium to long-term. These include increases of forestry and wood products, red meat and other animal products. Production of vegetable oils (focused on but not limited to palm oil) however would decrease in Indonesia under both scenarios used in the CGE modelling.

Considering waste management, and especially Indonesia's capacity to ensure sustainable waste management for non-biodegradable products, the increase of non-biodegradable products under the prospective FTA raises some concerns about negative environmental impacts as these products often require a more complex waste-management systems to dispose of (through disassembling, recycling or re-use in the circular economy), and current capacity in Indonesia is barely existing.

Considering Ecosystem Services, Biodiversity and Protected Areas, the scale and composition effects of the proposed EU-Indonesia FTA could have negative environmental effects for Indonesian biodiversity and ecosystems relating to the encroachment of nature reserves in favour of industrial zones – including special economic zones.

Recommendations

Trade-related measures

Recommendation 21: The Trade and Sustainable Development Chapter should include a provision calling the parties to commit to climate change related issues by further implementation of MEAs, including UNFCCC and the Paris Agreement, as well as the commitment to cooperate on environmental issues to guarantee that climate mitigation can be ensured. The Trade and Sustainable Development Chapter could also reinforce both parties' commitments to FLEGT, to ensure sustainable forest management, as well as call

both parties to fully implement the CITES to protect internal ecosystems and wider biodiversity in both parties. Furthermore, the Trade and Sustainable Development Chapter could also include a provision calling both parties to work towards achieving the Sustainable Development Goals.

Accompanying measures

Recommendation 22: To mitigate potential negative impacts arising from the composition and scale effects of the prospective FTA, it is recommended that **both parties cooperate in capacity building and sharing of best practices** on various environmental issues including, CO_2 and GHG emissions, forest management, land-management practices, with the objective of reducing and avoiding land-grabbing, to deepen cooperation on land-use and land-use change practices, including deforestation and sustainable palm oil production. The environmental cooperation should also focus on the expansion of GTF sector on Indonesia and the potentially negative impacts this could bring, encouraging parties to commit to dissemination and development of new pollution mitigating technologies.

The parties should reinforce their commitment to the **EU-Indonesia Business Dialogue, focusing on circular economy**, to further engage the business community into mitigating the negative environmental impacts.

Furthermore, the European Commission should also consider means of providing **technical assistance** to Indonesia via supporting various programs focusing on the most pressing environmental issues. For example, as the environmental impact on Indonesia's fisheries could be greater than currently estimated due to the CGE model's inability to clearly indicate the impacts on processed fish industry, it is recommended that the European Commission could consider providing technical expertise and capacity strengthening of the Catch Certification Scheme to ensure compliance and to avoid malpractices in the industry, leading to negative environmental impacts on fish population. Another area, where Indonesia is fared to suffer from various negative environmental issues, concerns palm oil plantations. The European Commission should consider strengthening the existing technical cooperation programs as well as to support other programs focused on sustainable management of palm-oil plantations, especially small-holders to avoid environmental risks.

Recommendation 23: In parallel to the FTA, it is recommended that both parties support the strengthening of existing sustainability certification schemes (e.g. for palm oil and timber) and consider continuing expanding the use of such schemes for products with a high risk to have negative environmental implications like textiles, clothing and footwear products as well as mining products. The European Commission could consider providing technical assistance to developing certifications schemes and their monitoring mechanisms.

Besides certification schemes, both parties are encouraged to consider cooperative action on cleaner supply chains and production standards, including environmental standards on waste water treatment, as well as solid and industrial waste management.

It is acknowledged that new technologies can mitigate negative environmental impacts. The effect of new technologies is discussed in **Recommendation 24** in Cross-Cutting Issues section.

10.5. Conclusions and Recommendations on Cross-cutting Issues

Opportunities

In terms of investments, further liberalization of investments in both the EU and Indonesia would be a positive development for economic growth and for employment opportunities on both sides. Several industries such as telecommunications, air navigation systems and renewable energy sector as well as the cleantech industry in Indonesia could potentially profit from high-quality expertise and increased investments from the EU if these sectors were to open up as a result of FTA negotiations. A more open foreign-ownership regime could potentially attract more foreign investors, which would likely lead to increases in national growth, competition and product quality in Indonesia, benefiting the consumers in the country.

In terms of public procurement, the prospective FTA could lead to increased revenue for EU firms by improving access to Indonesia's public procurement market. While this may lead to losses for some Indonesian firms, improved efficiency and greater competition could result in reduced corruption within Indonesia, improved governance and greater fiscal space over the long-term.

Concerning intellectual property rights, EU producers are expected to benefit from the stronger IP protection in Indonesia since harmonised IPR registration and compliance standards would reduce the costs associated with IP management, including filing, monitoring and enforcement of rights. European SMEs would benefit from stronger and more harmonised IP regime with Indonesia, since enforcement costs tend to disproportionately affect SMEs with limited resources to undertake costly action in markets with weak IPR enforcement, and often times unpredictable court proceedings. Furthermore, stronger IP regulation under the prospective FTA has the potential of increasing EU investments into Indonesia which would have an overall positive knock-on effect for the Indonesian economy.

Effective protection of GIs in Indonesia as a result of the prospective FTA can boost rural development in both the EU and in Indonesia and increase GI trade and cooperation between both parties.

In terms of global value chains, the FTA could spearhead the integration of European and Indonesian companies into GVC. Specific sectors in Indonesia that are expected to move up the global value chains include electronics, wearing apparel and services.

Challenges

In terms of investments, some concerns about potential social, human rights, and environmental impacts remain, especially relating to the potential inclusion of the ICS system in the prospective agreement. Fears have been raised that the new investor protection mechanism could take away some policy space from Indonesia and therefore result in a less sustainable agreement. As these fears mainly stem from stakeholder experience with the old ISDS system and due to lack of studies on the impacts of new ICS mechanism, which increases transparency through guidance to arbiters and through giving voice to the civil society, no definitive conclusions can be made. However, the transparency clauses of the new ICS system are likely to minimise any potentially negative impacts.

Possible increase in investments in land-use intensive industries, such as the palm? oil sector, and greenhouse gas intensive industries, such as mining, could lead to negative impacts for the environment if no provisions to counter these potential impacts are put in place. On the other hand, if the restrictions on the renewable energy industry and cleantech industry are further lifted, the agreement could promote positive effects through facilitation of knowledge-transfer and upgrade of Indonesia's industries. Considering Indonesia's current environmental situation, both positive and negative impacts could be significant.

Considering intellectual property rights, from the Indonesian industry perspective there is a concern that a strengthened IP regime as a result of the prospective FTA would in turn constrain Indonesia's efforts to build a national pharmaceutical industry that can contribute to the production of cheaper generic medicines for its population. Concerns have also been raised that the knock-on effect could affect marginalised groups in society and go against their right to health.

Furthermore, stakeholders have mentioned that stronger IP regulations, especially application of International Convention for the Protection of New Varieties of Plants as a result of the FTA, could conflict with the small-hold farmers' rights in Indonesia and as an unintended consequence, some small-hold farmers could risk penalties for unwittingly "stealing the seeds".

Recommendations

Trade-related measures

Recommendation 24 on Investments: The prospective FTA should commit parties to creating an overall better investment climate with the focus on **further liberalization of investments**. It is advisable that the negotiators seek as much liberalization of investment barriers as possible, especially non-tariff barriers and especially in the areas of priority. In order to promote sustainable development as well as mitigate potentially negative social and environmental impacts of the prospective FTA, it is recommended to include a similar chapter as Chapter 12 of the Singapore-EU FTA on Trade and Sustainability also in the EU-Indonesia FTA, emphasizing the need to facilitate the removal of obstacles to investments in climate-friendly goods and services where EU technology and innovation could play a role in enhancing production methods, lower energy use, reduce waste generation, and strengthen circular economy incentives. Renewable energy, water sanitation, waste-management services, infrastructure, public transport and e-vehicles could be areas of priority to consider. It is further suggested that the Parties should seek to promote cooperation in these areas especially in exchanging of market data as well as cooperation on research and innovation. Furthermore, the FTA negotiators should seek further liberalisation of financial services between the EU and Indonesia as this could bring further positive social and environmental impacts to Indonesia.

Furthermore, to enhance positive economic impacts in the EU and in Indonesia, it is recommended to consider opening several relatively closed sectors like telecommunications, air navigation systems and the alcoholic beverages industry in Indonesia to investments, which would benefit the country's overall economy.

Recommendation 25 on Investments: With increasing investments, the protection of investors would become more important. Therefore, it is recommended to include in the agreement a dispute settlement mechanism like the ICS with the emphasis on increased transparency of arbitration processes. It is also recommended that the ICS would undergo monitoring and evaluations to avoid unexpected effects like the unwanted limitation of

policy space as flagged by stakeholders. In this regard, it is recommended to include in the agreement a clause similar to the EU-Vietnam FTA, allowing Indonesia to adopt, maintain and enforce measures necessary to pursue legitimate policy objectives. This would help to counter concerns of stakeholders that investment protection provisions could potentially limit the policy space in Indonesia.

Recommendation 26 on Public Procurement: EU negotiators should seek to establish wide-ranging coverage of goods, services and government entities within the chapter on public procurement and thresholds in line with the lower-bound ranges found in the Annexes to the GPA. Emphasis should be placed on securing lower thresholds for access to construction services. While EU negotiators should seek to include coverage of all subnational jurisdictions, emphasis should be placed on securing access to DKI Jakarta, East Java, East Kalimantan, West Java and Central Java. The chapter on procurement should permit green procurements provided they are non-discriminatory in application.

Recommendation 27 on Intellectual Property: The Intellectual Property Rights Chapter of the FTA should include all major areas of IPR rights including trademarks, patents, designs, plant varieties, copyright, geographical indications and IPR enforcement, including stronger IPR border measures, because strong IP protection benefits companies on both sides, especially the SMEs. In this regard the IPR Chapter should call for both parties to ratify and respect major international agreements and other instruments in all the above-mentioned areas in order to guarantee maximum harmonised IPR registration and compliance standards, to promote innovation and creativity. The IPR Chapter should be similar in scope to the one put forward in EU-Singapore and EU-Vietnam FTAs.

At the same time, the Intellectual Property Rights Chapter of the prospective FTA should also explicitly refer to the Doha Declaration, which allows for so called '*TRIPS flexibilities'* including parties' right to grant compulsory licenses to protect public health and the freedom to determine the grounds upon which such licenses are granted, in order to guarantee access to affordable medicine in Indonesia. This is especially important in response to fears raised by some stakeholders that foreign investments, further privatization and stronger IP laws could adversely affect Indonesian citizens' right to health.

Accompanying measures

Recommendation 28: Beyond the scope of the FTA the EU should remain committed to **cooperation and capacity building measures** that aim at harmonising the systems for IP creation, protection, administration and enforcement of IPR regime between the EU and Indonesia, including the EU-ASEAN Project on the Protection of Intellectual Property Rights, ASEAN Regional Integration Support Project and the IP-Key.

In addition, it is recommended that both parties commit to further cooperation measures in order to share best practices in IP enforcement as well as rising awareness on Geographical Indications protection. This could have further positive impact on the trade in GI products between both parties.

Furthermore, to ensure harmonization of IP systems between the EU and Indonesia, it is also recommended to establish an **IP Dialogue** with Indonesia similar to what the EU currently has with Thailand. The objectives of the Dialogue would be to promote stronger IP enforcement (including enforcement at the border) and fight against piracy through cooperation and sharing of best practices.

As another cooperation and capacity building measure, the EU should consider means of assisting Indonesia in complying with and implementing the International Convention for the Protection of New Varieties of Plants. This is especially important as Indonesia's smallholder farmers are not familiar with modern protection of plant varieties. Education and training would be necessary to avoid situations where smallholder farmers could face penalties for unwittingly "stealing the seeds". Education and training projects could be considered by the European Commission in cooperation with chambers of commerce or other entities.

Recommendation 29: An *ex-ante* Sustainability Impact Assessment has its limitations as it analyses possible future impacts of the FTA, not being able to give an overview of all of the actual impacts. Thus, is recommended that the European Commission considers **conducting an *ex-post* Sustainability Impact Assessment** to suggest further mitigating measures outside of the FTA. The *ex-post* SIA should especially focus on the topics that are most difficult to evaluate, including impacts on third countries, impacts on SMEs and human rights. The *ex-post* SIA should engage as many relevant stakeholders as possible. For example, the human rights impact assessment should be carried out in close cooperation with the civil society organisations in Indonesia and the EU, while the SME impact assessment should engage the SMEs in the process. The *ex-post* SIA should be carried out after the FTA has been in force for at least 10 years.

The objectives of the *ex-post* SIA are to identify the main issues that were not foreseen in the *ex-ante* SIA and to propose concrete measures that the EU and Indonesia could take to address these issues if needed.

10.6. Conclusions and Recommendations on Sector-specific Analysis

The conclusions of sector-specific analysis are summarised in the table below. As the recommendations fall within the scope of the horizontal recommendations presented in the overall economic, social, human rights and environmental analysis sections, the recommendations are briefly summarised in the "recommendations" column with the cross-reference to full recommendations under their respective chapters. New recommendations are however described in further detail.

Table 31: Summary of Sectoral Analysis

Sector	Economic Impacts	Social & Human Rights Impacts	Environmental Impacts	Recommendations
Vegetable oils and Oilseeds	Opportunities: Vegetable oil and oilseeds sector is of vital importance to Indonesia in terms of trade, since Indonesia is the main palm oil producer and exporter worldwide. The FTA is expected to have an overall positive impact on the trade between the EU and Indonesia, increasing Indonesia's exports the EU by approximately €500 million, while Indonesia's output of vegetable oils and oilseeds would slightly decrease.	Opportunities: Increased adherence to CSR and RBC principles could contribute to improvement of working conditions in the palm oil sector in the long run. Challenges: Given the palm oil sector's important role for the economy and employment generation in Indonesia, a shift away from employment in this sector could have negative impacts to Indonesia's most vulnerable groups and result in disadvantages for smallholder farmers, as their skills may not be transferable. Should implementation of labour laws not improve, negative social impacts on working conditions, are likely to persist, although not exacerbate under the prospective FTA.	Challenges: CO_2 Emissions in Indonesia are expected to slightly increase, even though the overall emissions would decrease as a result of more significant emissions decrease in the EU. Even though Indonesia's output of vegetable oils would decrease under the prospective FTA, concerns about land conversion and resulting deforestation nevertheless remain.	**Recommendation 15:** on the importance of promoting the CSR/RBC practices as well as ILO labour standards. **Recommendation 20:** on the importance of certification schemes in palm oil sector, and recommendation to consider cooperation in strengthening the RSPO certification scheme and Indonesia Sustainable Palm Oil certification scheme's protection of human rights, including indigenous people's customary land rights. **Recommendation 21:** focusing on the parties' commitment to MEAs including CITES as well as the Paris Agreement. **Recommendation 23:** on cooperation in capacity building and sharing of best practices, especially in the areas of land-use change practices – including deforestation. In particular, it is recommended that the European Commission could consider providing technical and financial assistance to strengthen palm oil smallholder capacity to adopt sustainable palm oil management practices in Indonesia.

Fisheries	Opportunities: overall economic impacts are expected to be positive for both sides with slight increases in output and bilateral trade for both the EU and Indonesia. Challenges: The main barrier for trade in fisheries between the EU and Indonesia is the capacity of Indonesian companies to meet EU standards regarding adherence to SPS requirements, traceability requirements as well as packaging and labelling requirements.	Opportunities: The FTA could provide an additional framework for improving working conditions in fisheries section. Challenges: The fisheries sector in Indonesia provides low quality jobs with greater prevalence of poor working conditions and potential labour and human rights violations. These jobs, nevertheless, continue to be crucial sources of income for some of the most vulnerable groups in society. Expected slight decline of jobs in this sector under the FTA could negatively impact Indonesia's most vulnerable groups. Should implementation of labour laws not improve, negative social impacts on working conditions are likely to persist, although not exacerbate under the prospective FTA.	Challenges: Due to predicted increases in output of fisheries products in Indonesia, fish populations are at risk of suffering from overfishing as well as from the IUU practices and the issue of by-catch. Potential depletion of some fish resources can have far-ranging consequences for local fishing communities.	**Recommendation 3 and 4**: on adherence to international standards, especially when it comes to SPS measures and sustainable fishing standards. **Recommendation 14:** on considering a transition period in tariff liberalization for the fisheries sector, to minimise the impact on loss of jobs. **Recommendation 15**: on the importance of ratifying and implementing the ILO Labour Conventions, including the ILO Convention on Work in Fishing Convention No.188 (2007) as well as on promoting CSR/RBC standards and practices. **Recommendation 22:** on cooperation and technical assistance especially on capacity strengthening of the Catch Certification Scheme. Further cooperation of both parties in light of the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, which both parties have ratified, could be taken into consideration to further reduce the implications of IUU.
Energy and Mining	Opportunities: overall economic impact is expected to be positive with slight increases of bilateral trade on both sides. Should negotiations on investments result in further liberalisation, positive economic impacts could be larger. Increased cooperation on research and innovation is likely to maximise positive economic impacts. Challenges: output of Indonesia's mining products is expected to slightly	Opportunities: promotion of CSR principles with the help of EU companies could potentially ensure an additional pillar to monitoring of the supply chain. Challenges: Considering Indonesia's rather weak national laws on indigenous peoples' land rights and continuing administrative malpractices, companies need to exercise caution in this sector. Should implementation and enforcement of labour laws not improve, negative social impacts on working conditions are likely to persist, although not exacerbate under the prospective FTA.	Opportunities: Investments in clean technologies can minimise negative environmental impacts. Challenges: Conservative and ambitious scenarios expect an increase in CO_2 and GHG emissions in Indonesia, while in the EU CO_2 and GHG emissions are expected to decline slightly. Increases in output in fossil fuels sector in Indonesia can result in intensification of a wide range of negative environmental impacts including soil, water and air pollution.	**Recommendation 15**: on the importance of promoting CSR/RBC standards and practices as well as the ratifications and implementation of ILO Labour Conventions and the ILO Decent Work Agenda. **Recommendation 24:** on the importance of liberalising investments in renewable energies and clean technologies. Furthermore, it is suggested that the Parties should seek to promote cooperation in renewable energy sector especially in exchanging of market data as well as cooperation on research and innovation in the areas of energy efficiency and renewable energy solutions. **Recommendation 30**: As an accompanying measure the European Commission could consider support of the ESIA (AMDAL), environmental management and monitoring plan as stipulated in the Indonesian law No 32/2009, as well as the creation of a certification schemes, such as ISO 14001 (Environmental

	decrease.			management system).
Clothing and Wearing Apparel	Opportunities: Large positive impact to Indonesia is expected in terms of increased output and increased overall and bilateral exports. This could increase the upstream capabilities of the Indonesian clothing and apparel industry in case of increased foreign investments and access to technological developments. Challenges: Textile and wearing apparel industry is expected to slightly shrink in the EU, which might adversely affect SMEs active in the sector.	Opportunities: the FTA will result in significant job creation in the GTF sector in the EU, providing opportunities for more women to enter the workforce. Industrial modernization could lead to the possibility of workers to move within the supply chain to more technologically advanced modes of production and increase their economic status. Challenges: Expansion of the GTF industry could lead to further skills mismatch in Indonesia, especially in the GTF sector. Should implementation of labour laws not improve, negative social impacts on working conditions are likely to occur. There are concerns about possible negative impacts to womens' rights in the GTF secor. Furthermore, use of child labour could potentially increase under the FTA.	Opportunities: Investments in clean technologies, especially in waste-water treatment can minimise negative environmental impacts. Challenges: Reflecting the CGE model's results, a conservative FTA would see an increase in CO_2 emissions of 0.52 per cent for Indonesia. An ambitious FTA could see an increase of 0.55 per cent of CO_2 emissions from the baseline scenario in Indonesia. As an extremely water-intensive sector, considerable increase in output could translate into negative environmental impacts in Indonesia, including, straining Indonesia's already weak waste-water treatment system and increased water pollution due to increase in toxins escaping to the water.	**Recommendation 14:** on considering a transition period in tariff liberalization for the textile and wearing apparel sector, to minimise the impact on loss of jobs in the EU. **Recommendation 15**: on the importance of promoting CSR/RBC standards and practices as well as the ratifications and implementation of ILO Labour Conventions and the ILO Decent Work Agenda. **Recommendation 17**: on cooperation through Social Dialogue, as well capacity building and technical assistance to strengthen the ability to join and form trade unions. **Recommendation 24:** on the importance of liebarlising investments in areas where the EU could contribute with advanced technologies, including waste-water treatment. **Recommendation 31**: As an accompanying measure the European Commission could consider support of the environmental requirements like Government Act Number 32/2009 on Environmental and social Impact Assessment (ESIA), including issuing of management and monitoring plans to minimise environmental risks resulting from textile industries, and/or the support of the application of environmental management certification (ISO 14000, ISO/TS 14067-carbon footprint) could be considered to minimise negative environmental impacts.

Motor Vehicles and Parts	Opportunities: The EU would see positive impacts from significant increase in output, overall exports and bilateral exports. Indonesia could benefit from potential increases in FDI in R&D. Challenges: In Indonesia a slight decline in output is projected and this could negatively impact the many SMEs working in this sector as they are not able to adjust to new business realities as fast as their larger counterparts.	Opportunities: The EU could potentially see a slight creation of well-paid jobs in the motor-vehicles and parts sector, once trade is liberalised under the prospective EU-Indonesia FTA. Challenges: Indonesia could potentially see quite a significant loss of well-paid jobs in the motor vehicles sector, once trade is liberalised under the potential EU-Indonesia FTA.	Opportunities: Investments in clean technologies, especially in electric vehicles can minimise negative environmental impacts. Challenges: Increases in output in motor vehicles and parts sector in the EU would be coupled with slight increases in CO_2 emissions (0.1 per cent increases in either scenario, accounting for 0.01 MT of CO_2 emissions).	**Recommendation 4**: on the importance of following international standards, a commitment from both Parties to follow international UN/ECE standards. **Recommendation 14:** on considering a transition period in tariff liberalization for the motor vehicles and parts sector, to minimise the impact on loss of well-paid jobs in Indonesia. **Recommendation 24:** on the importance of liberalising investments in clean technologies and creating supportive investment policies in Indonesia to mitigate environmental implications both in consumption of vehicles as well as by optimizing production processes. **Recommendation 32**: Provisions of a clean energy standards for motor vehicles should be well defined to limit environmental impacts of motor vehicles for both parties.
Financial Services	Opportunities: The EU-Indonesia FTA will have rather limited economic impact on financial services sector in both countries. However, negotiations in investments could potentially result in slightly positive economic impacts on both sides.	Opportunities: the strengthening of the financial and banking infrastructure in Indonesia through increased EU export of financial services under the FTA would promote a higher level of financial inclusion in Indonesia. This can also have positive impact on the promotion of human rights by enhancing food security, and access to essential goods and services including food, health and education. Opportunities could arise for social entrepreneurs in Indonesia to gain financing. Challenges: the poor who lack awareness in social entrepreneurship opportunities may unfortunately be the least able to afford them.	Opportunities: A prospective EU-Indonesia FTA could play a role in facilitating financing mechanisms of European banks in Indonesia, which contribute to positive environmental impacts.	**Recommendation 24**: on the importance of the need to liberalise investments in financial services between the EU and Indonesia.

11. Annexes

Annex 1
Stakeholder List

Academic Institutions/ Research Institutes	
Indonesia	University of Indonesia; SMERU Research Institute, Indonesia; Centre for Indonesian Policy Studies; Institute for Economic and Social Research (LPEM); Center for International Forestry Research; Aceh Green Community; Yayasan Pembinaan Masyarakat Desa; Universitas Airlangga; Universitas Padjadjaran; Diponegoro University; Bandung Institute of Technology (ITB); Gadjah Mada University (UGM); Bogor Agricultural University; President University; Bina Nusantara University (BINUS); Universitas Brawijaya (UB); Indonesian Legal Studies Foundation; ICDHRE – Islamic Center for Democracy and Human Rights Empowerment; Women's Research Institute; Center for Gender Mainstreaming and Children's Rights; Center for Indonesian Policy Studies (CIPS); Indonesian Biodiversity Research Center (IBRC);
Europe	FES) Friedrich-Ebert-Stiftung; ECIPE (European Centre for International Political Economy); Asia-Europe Foundation (ASEF); European Institute for Asian Studies; Asia Centre – Paris; Universität Heidelberg – Asia and Europe Cluster of Excellence; Central and Eastern European Center for Asian Studies (CEECAS); Leiden University Asia Centre; International Institute for Asian Studies – Netherlands; The Association for Asian Studies & Asian Studies Centre – St. Antony's College Oxford; Asia House – London; SOAS Centre of South East Asian Studies; Association for South East Asian Studies in the UK (ASEASUK); European Association of South East Asian Studies (EUROSEAS); SOAS Centre for Development, Environment and Policy (CeDEP); SOAS Department of Politics and International Studies; University of Sussex Asia Centre; Grantham Institute for Climate Change, Imperial College London; Institute for European Environmental Policy; Centre for South East Asian Studies at Lund University; Centro de Estudios de Asia Oriental (CEAO; Centre for East Asian Studies) Madrid; Fride European Think Tank for Global Action; Center for International Relations Poland; Utrecht Sustainability Institute; European Centre for Development Policy Management; Institute of Asian Affairs (IFA), Hamburg; German Council on Foreign Relations (Deutsche Gesellschaft für Auswärtige Politik); European Union Institute for Security Studies; Nordic Institute of Asian Studies (NIAS);

	SATNET Asia; EU Eco-City Project; European NGO Federation for Relief and Development; European Policy Centre
Government institutions	
Indonesia	Ministry of Trade; Ministry of Energy and Mineral Resources; Ministry of Maritime Affairs and Fisheries; Ministry of Environment and Forestry; Ministry of Research, Technology and Higher Education; Ministry of Industry; Ministry of Law and Human Rights; Ministry of Foreign Affairs Investment Coordinating Board National Council for Special Economic Zone
Europe	Delegation of the European Union to the Republic of Indonesia EU Member States' Embassies to the Republic of Indonesia
Private Sector Organisations and Trade Unions	
Indonesia	Confed. of All Indonesian Trade Union (Kongres Jakarta); Confed. of Indonesian Prosperity Trade Union; Confed. of All Indonesian Trade Union (Rekonsiliasi); Confed. of Indonesian Trade Unions (CITU); Indonesia Business Council for Sustainable Development (BCSD); Indonesian Palm Oil Association (GAPKI IPOA); Masyarakat Energi Terbarukan Indonesia (METI); Indonesian Chamber of Commerce and Industry; Indonesian Petroleum Association; Importers Association of Indonesia; Indonesia Trade Association; Association of Indonesian Small and Middle Enterprises; Indonesian Business Women Association; Association of Indonesian Indigenous Businessman The Employers' Association of Indonesia (Asosiasi Pengusahaindonesia ([Apindo]) EU-Indonesia Business Network European Chamber of Commerce in Indonesia British Chamber of Commerce Indonesia German Chamber of Commerce French Chamber of Commerce Italian Business Association DanCham Swedish Business Association
Europe	European Association for Aquatic Mammals (Belgium); European Biodiesel Board (Belgium); European Biomass Association (Belgium); European Builders Confederation AISBL (Belgium); European Community Shipowner's Associations (Belgium); European Federation of Waste Management and Environmental Services (Belgium); European Public Real Estate Association (Belgium); European Sea Ports Organisation (Belgium); European Smoking Tobacco Association (Belgium); European Tyre & Rubber Manufacturers' Association (Belgium); European Association for Coal and Lignite (Belgium); European Association of Mining Industries, Metal Ores & Industrial Minerals (Belgium); European Coalition on Homeopathic and Anthroposophic Medicinal Products (Belgium); European Competitive Telecommunications Association (UK); European Confederation of Private Employment Agencies (Belgium); European Diagnostic Manufacturers Association (Belgium); European Federation for Intelligent Energy Efficiency Services (Belgium); European Federation of Associations of Health Product Manufacturers (Belgium); European Federation of National Associations of Water Services (Belgium); European Heat Pump Association (Belgium); European Insulation Manufacturers Association (Belgium);

	European Money Markets Institute (Belgium); European Seeds Association (Belgium); European Telecommunications Network Operators' Association (Belgium); European Turbine Network (Belgium); Eurosmart (Belgium); Extended Producer Responsibility Alliance (Belgium); FEBIAC (Belgium); Fédération Européenne des Fabricants d'Aliments Composés (Belgium); Fédération Européenne pour la Santé Animale et la Sécurité Sanitaire (France); Foreign Trade Association (Belgium);The European Alliance of Companies for Energy Efficiency in Buildings (Belgium); The European Association for the Promotion of Cogeneration; The European Organization for Packaging and the Environment (Belgium); COPA - European Farmers, Eurocommerce; Euroalliages (Association of European ferroz-alloy producers) CLEPA (European Association Automotive Suppliers); FECC (European Association of Chemical Distributors); CEFIC (European Chemical Industry Council); ECA (European Cocoa Association); EEA (European Express Association); CELCAA (European Liaison Committee for Agriculture and agri-food trade); Etira (European Toner & Inkjet Remanufacturers' Association); FERM (Federation of European Rice Millers); FESI (Federation of the European Sporting Goods Industry); Fertilizers Europe (Association of fertilizer manufacturers in Europe); FoodDrinkEurope; Freshfel Europe (European fresh fruits and vegetables chain); IEA (Industrial Ethanol Association); STARCH Europe (EU starch industry); FEDIOL (The EU Vegetable Oil and Proteinmeal Industry); Trans-Atlantic Business Council; VCI (Verband der Chemischen Industrie e.V.); Zentralverband des Deutschen Handwerks e.V.; Apex-Brasil Brussels-Europe; a.v.e.c (Association de l'Aviculture, de l'Industrie et du Commerce de Volailles dans les Pays de l'Union Europeenne); ASSUC (European Association of Sugar Traders; BUSINESSEUROPE); European Service Forum (ESF) CEFS (COMITE EUROPEEN des FABRICANTS de SUCRE); CEC (European Confederation of the Footwear Industry); Confederation of European Community Cigarette Manufacturers; Confederation of the European Bicycle Industry; Deutscher Industrie- und Handelskammertag e.V.; Euratex (European Apparel and Textile Federation) ; Freshfel Europe; Wirtschaftskammer Oesterreich; Enterprise Europe Network (EEN); European Association of Craft, Small and Medium-Sized Enterprises (UEAPME); European Small Business Alliance (ESBA); Federation of Small Business (UK); European Trade Union Confederation (ETUC); European Confederation of Independent Trade Unions (CESI); European Trade Union Institute (ETUI); IndustriALL – European Trade Union; Brussels Office of the Swedish Trade Unions
Non-Governmental, Regional and International Organisations	
Indonesia	Perhimpunan Bantuan Hukum Indonesia (PBHI); SAMIN; Commission for the Disappeared and Victims of Violence; Yayasan Lembaga Bantuan Hukum Indonesia YLBHI; Indonesian Human Rights Monitor IMPARSIAL; HRWG Human Rights Working Group; Alliance of Independent Journalist AJI; Open Society Programme; Asian and Pacific Coconut Community; Wahana Lingkungan Hidup Indonesia (Indonesian Forum for the Environment); KemBali; Yayasan Senyum – Smile Foundation; IDEP Foundation; Bumi Sehat Foundation International; The Wahid Foundation;

	Give2Asia – Indonesia; Indigenous Peoples Alliance of the Archipelago (AMAN); ARUS Pelangi; Indonesia Anti-Discrimination Movement; Indonesia Forum for Human Dignity; Institute for Human Rights Study and Advocacy; Watch Indonesia; Aceh NGO Coalition for Human Rights; Aliansi Demokrasi untuk Papua; Foundation for Keeping Moluccan Civil and Political Rights (FKMCPR) Institute for Global Justice (IGJ) The United Nations Development Programme (UNDP); The World Bank; IMF; ADB; The United Nations Economic and Social Commission for Asia-Pacific (UNESCAP); The International Labour Organisation (ILO); the World Health Organisation (WHO); The Food and Agriculture Organisation (FAO)
Europe	Friends of the Earth Europe (FoEE); ClientEarth; Climate Action Network - Europe (CAN-Europe); Coastwatch Europe; European Association of Environmental and Resource Economists; European Biomass Association; European Environmental Bureau (EEB); European Wildlife; INFORSE-Europe; European Environment Agency (EEA); Confederation of European Environmental Engineering Societies; Eurogroup for Animals; European Women's Lobby; WECF | Women in Europe for a Common Future; Women in Development Europe (WIDE); European Feminist Forum; Terre des Femmes; European Network of Migrant Women; Women's International Studies Europe (WISE); European Centre of the International Council of Women (ECICW); European Alliance Of Catholic Women's Organisations; Women's International League for Peace and Freedom (WILPF); European Centre of the International Council of Women (ECICW); The European YWCA; University Women of Europe (UWE); International Alliance of Women (IAW); Business & Professional Women Europe (BPWE); Euro-Mediterranean Human Rights Monitor; The Human Rights and Democracy Network (HRDN); European Network of National Human Rights Institutions (ENNHRI); European Court of Human Rights; The Commission Consultative des Droits de L'homme of Luxembourg; European Corporate Governance Institute; European Council on Refugees and Exiles; European Roma Rights Center; EuroPRO-fem; Center for European Migration and Ethnic Studies; European Court of Justice; Center for International and European Law on Immigration and Asylum; The European Convention on Human Rights; European Social Charter for Europe; International Partnership for Human Rights (IPHR); World Wildlife Fund (WWF); Global Environment Facility (GEF); International Union for Conservation of Nature (IUCN); United Nations Environment Programme (UNEP); World Nature Organization (WNO);Union Resource Network (FERN;

	Friends of Nature; Friends of the Earth; Global Footprint Network; Greenpeace; The Climate Reality Project; Nature Conservancy; The Resource Foundation; WILD Foundation; Wildlife Conservation Society; World Business Council for Sustainable Development; World Resources Institute (WRI); UN Women; Associations of Junior Leagues International; International Alliance of Women; International Council of Women; Women's Environment & Development Organization; Women's International Democratic Federation; Womankind Worldwide

Annex 2

Economic Analysis Tables (list of all tables from CGE model)

Table 32: CGE modelling results – Impact on overall EU exports and imports by sector (% change and Value in constant 2011 dollars)

Sector	Total Exports				Total imports (CIF)			
	% Change		Value (mil USD)		% Change		Value (mil USD)	
	C	A	C	A	C	A	C	A
Rice	0.00%	0.30%	0	0.66	0.10%	0.70%	3.51	20.55
Other Agricultural Products	0.10%	0.10%	29.96	24.42	0.10%	0.10%	23	26.81
Vegetables, fruit, nuts	0.00%	0.00%	-0.91	-2.29	0.00%	0.10%	14.66	17.59
Vegetable Oils and Oilseeds	0.40%	0.40%	30.11	29.07	0.70%	0.70%	324.65	327.85
Sugar	0.00%	0.00%	-0.59	0.54	0.10%	0.20%	3.77	9.98
Red Meat	-0.10%	-0.10%	-4.33	-5.73	0.00%	0.10%	3.41	5.32
Other animal products	0.00%	0.00%	-4.86	-8.17	0.10%	0.40%	15.52	61.77
Milk & Dairy	0.60%	0.60%	99.28	95.29	0.10%	0.10%	3.38	4.29
Fishing	0.00%	0.00%	0.31	0.48	0.00%	0.10%	2	3.8
Processed Food	0.20%	0.20%	170.08	162.28	0.60%	0.60%	340.16	346.22
Beverages and tobacco	0.30%	0.30%	158.46	162.64	0.10%	0.30%	10.38	44.61
Forestry & Wood products	0.00%	0.00%	14.51	6.82	0.30%	0.30%	213.24	227.47
Fossil Fuels	0.00%	0.00%	19.21	9.16	0.00%	0.00%	153.49	189.31
Other minerals	0.00%	0.00%	10.61	2.58	0.00%	0.00%	57.91	70.49
Textiles	0.60%	0.60%	288.42	324.6	0.60%	0.60%	783.43	809.74
Wearing apparel	0.60%	0.60%	178.11	195.21	0.60%	0.60%	905.48	930.63
Leather and products	1.00%	1.10%	276.2	294.54	2.30%	2.40%	1,781.50	1,804.10
Paper	0.40%	0.50%	274.47	339.21	0.10%	0.10%	24.37	36.73
Chemical, rubber, plastic products	0.20%	0.30%	1,411.60	1,703.40	0.10%	0.10%	463.9	584.18

Metal products	0.10%	0.10%	260.47	300.53	0.10%	0.10%	384.52	485.36
Motor vehicles and parts	0.30%	0.30%	1,280.40	1,319.80	0.10%	0.10%	216.41	250.32
Other transport equipment	0.20%	0.30%	266.22	436.57	0.10%	0.10%	145.58	192.9
Electronics	0.00%	0.10%	53.35	115.67	0.10%	0.10%	318.98	400.4
Other machinery	0.30%	0.40%	1,878.10	2,567.30	0.10%	0.10%	593.26	785.32
Other manufacturing	0.10%	0.10%	43.26	40.99	0.10%	0.10%	139.63	188.24
Utilities: Energy	-0.10%	-0.10%	-8.23	-10.75	0.10%	0.10%	14.9	20.24
Other Utilities	0.00%	0.00%	5.69	-1.56	0.10%	0.10%	33.47	40.44
Other Services	0.00%	0.00%	107.8	54.76	0.10%	0.10%	259.57	313.84
Other transport	0.00%	0.00%	98.95	70.3	0.10%	0.10%	172.48	200.39
Water transport	0.00%	0.00%	9.32	5	0.10%	0.10%	23.28	27.1
Financial services	0.00%	0.00%	-31.98	-56.99	0.10%	0.10%	85.41	108.36
Other business services	0.00%	0.00%	81.18	24.87	0.10%	0.10%	228.62	290.56

Source: CGE modelling results

Notes: C= conservative scenario under EU-Indonesia FTA ; A=ambitious scenario under EU-Indonesia FTA only;

Table 33: CGE Modelling Results – Impacts on overall Indonesian exports and imports by sector (% change and Value in constant 2011 dollars)

Sector	Total Exports				Total imports (CIF)			
	% Change		Value (mil USD)		% Change		Value (mil USD)	
	C	A	C	A	C	A	C	A
Rice	4.20%	31.80%	7.11	53.29	1.20%	1.40%	30.22	33.48
Other Agricultural Products	-1.10%	-1.10%	-51.01	-51.81	1.70%	1.80%	195.43	199.62
Vegetables, fruit, nuts	-0.50%	-0.50%	-11.66	-11.91	1.10%	1.20%	18.14	18.56
Vegetable Oils and Oilseeds	0.30%	0.30%	135.1	140.83	1.10%	1.10%	73.58	74.13
Sugar	0.00%	3.20%	0.02	6.22	0.70%	0.80%	26.66	30.05
Red Meat	1.10%	1.10%	0.19	0.19	2.60%	2.60%	24.68	25.04
Other animal products	-1.40%	0.90%	-26.57	16.68	3.30%	3.40%	10.26	10.7
Milk & Dairy	-1.20%	-1.20%	-2.2	-2.14	5.10%	5.10%	93.12	93.23
Forestry & Wood products	0.30%	0.40%	42.78	53.51	3.40%	3.40%	43.87	43.71
Fishing	-0.70%	-0.70%	-13.33	-12.68	1.10%	1.20%	0.74	0.79
Processed Food	2.30%	2.30%	270.15	271.77	3.30%	3.30%	187.28	189.17
Beverages and tobacco	0.40%	3.20%	4.82	39.5	19.50%	20.50%	157.62	165.38
Fossil Fuels	-0.10%	-0.10%	-147.77	-138.75	0.20%	0.30%	176.73	184.33
Other minerals	-0.30%	-0.30%	-106.59	-96.34	1.10%	1.10%	49.08	49.73
Textiles	5.50%	5.70%	1,325.80	1,366.20	4.50%	4.70%	509.01	536.44
Wearing apparel	14.90%	15.10%	2,076.50	2,098.10	10.50%	12.20%	102.92	119.72
Leather and products	22.20%	22.40%	3,396.00	3,430.30	9.80%	10.90%	153.4	170.56
Paper	-0.50%	-0.40%	-87.73	-64.64	3.70%	4.50%	254.02	309.44
Chemical,	0.00%	0.20%	-15.23	106.92	2.30%	2.70%	1,357.30	1,566.40

rubber, plastic products								
Metal products	-0.50%	-0.30%	-163.11	-95.91	1.70%	1.90%	354.44	397.7
Motor vehicles and parts	0.30%	0.50%	39.65	62.75	7.50%	8.10%	943.18	1,008.60
Other transport equipment	-0.20%	0.10%	-13.83	9.38	2.70%	3.90%	266.81	381.93
Electronics	1.60%	2.00%	222.5	277.06	0.90%	1.00%	175.3	203.58
Other machinery	0.20%	0.70%	65.72	213.09	1.40%	1.90%	791.03	1,023.80
Other manufacturing	-0.20%	0.00%	-7.85	-1.17	1.90%	2.00%	71.43	74.46
Utilities: Energy	-0.30%	-0.20%	-3.43	-2.6	0.40%	0.40%	0.01	0.01
Other Utilities	0.20%	0.30%	4.14	5.79	3.60%	3.60%	30.6	30.76
Other Services	0.20%	0.20%	20.6	27.55	3.10%	3.20%	301.53	301.96
Other transport	0.60%	0.60%	59.23	63.6	2.60%	2.60%	187.54	187.34
Water transport	0.60%	0.60%	9.35	10.1	2.20%	2.20%	20.45	20.14
Financial services	0.20%	0.20%	2.96	4.66	2.30%	2.30%	55	54.55
Other business services	-0.10%	0.00%	-1.86	-0.48	2.60%	2.60%	256.38	256.11

Source: CGE modelling results

Notes: C = conservative scenario under EU-Indonesia FTA only; A=ambitious scenario under EU-Indonesia FTA only;

Table 34: CGE Modelling Results – Impacts on bilateral exports between the EU and Indonesia, by sector (% change and Value in constant 2011 dollars)

Sector	Bilateral exports: EU				Bilateral exports: Indonesia			
	% Change		Value (mil USD)		% Change		Value (mil USD)	
	C	A	C	A	C	A	C	A
Rice	8%	30%	0.01	0.02	18%	108%	9.05	55.4
Other Agricultural Products	25%	25%	53.89	53.94	1%	1%	8.95	8.91
Vegetables, fruit, nuts	18%	18%	3.59	3.6	7%	7%	9.63	9.63
Vegetable Oils and Oilseeds	25%	25%	3.45	3.44	21%	21%	711.77	712.54
Sugar	14%	71%	0.33	1.64	6%	32%	1.55	7.8
Red Meat	29%	29%	1.04	1.04	747%	747%	0.64	0.64
Other animal products	31%	31%	5.24	5.27	6%	37%	9.56	55.35
Milk & Dairy	33%	33%	111.32	111.25	505%	506%	0.18	0.18
Forestry & Wood products	38%	38%	18.34	18.31	7%	7%	221.04	223.84
Fishing	12%	12%	0.24	0.24	5%	11%	1.87	3.87
Processed Food	39%	39%	166.3	166.43	28%	28%	353.82	354.21
Beverages and tobacco	313%	327%	166.82	174.65	9%	45%	8.45	42.79
Fossil Fuels	18%	18%	54.17	54.18	0%	0%	-1.03	-0.83
Other minerals	18%	18%	32.2	32.21	1%	1%	10.89	11.37
Textiles	101%	120%	260.13	309.36	50%	50%	1,482.40	1,490.40
Wearing apparel	164%	197%	117.64	141.48	77%	78%	2,165.30	2,172.50
Leather and products	100%	122%	108.58	133.41	51%	51%	3,502.20	3,521.60
Paper	30%	38%	308.91	389.2	0%	0%	-3.44	-2.2
Chemical, rubber, plastic products	60%	75%	1,654.40	2,068.30	3%	3%	280.2	300.18

Metal products	62%	76%	401.32	492.8	1%	2%	19.22	22.53
Motor vehicles and parts	166%	178%	1,446.50	1,553.60	17%	18%	74.6	75.72
Other transport equipment	26%	41%	349.79	559.62	8%	9%	60.1	62.65
Electronics	29%	47%	166.01	269.97	16%	16%	241.59	248.66
Other machinery	61%	84%	2,447.10	3,338.80	1%	1%	20.15	40.59
Other manufacturing	98%	110%	68.27	77.09	1%	1%	8.82	10.38
Utilities: Energy	0%	0%	0	0	0%	0%	-1.3	-0.89
Other Utilities	8%	8%	28.47	28.5	2%	2%	15.11	15.75
Other Services	8%	8%	282.35	282.07	2%	2%	96.37	99.53
Other transport	8%	8%	193.71	193.4	3%	3%	94.5	96.26
Water transport	6%	6%	22.04	21.89	2%	2%	13.52	13.82
Financial services	6%	6%	51.44	51.17	2%	2%	11.64	12.3
Other business services	7%	7%	276.36	275.8	2%	2%	9.19	9.54

Source: CGE modelling results

Notes: C = conservative scenario under EU-Indonesia FTA only; A=ambitious scenario under EU-Indonesia FTA only;

Table 35: CGE Modelling Results – Impacts on sectoral balances of trade, bilaterally and overall for the EU and Indonesia (in constant 2011 dollars)

	Total Balance of Trade: EU Value (mil USD)		Bilateral Balance of Trade (EU Perspective) Value (mil USD)		Total Balance of Trade: Indonesia Value (mil USD)	
Sector	**C**	**A**	**C**	**A**	**C**	**A**
Rice	-3.51	-19.89	-9.04	-55.38	-23.11	19.81
Other Agricultural Products	6.96	-2.39	44.94	45.03	-246.44	-251.43
Vegetables, fruit, nuts	-15.57	-19.88	-6.04	-6.03	-29.80	-30.47
Vegetable Oils and Oilseeds	-294.54	-298.78	-708.32	-709.10	61.52	66.70
Sugar	-4.36	-9.44	-1.22	-6.16	-26.64	-23.83
Red Meat	-7.74	-11.05	0.40	0.40	-24.49	-24.85
Other animal products	-20.38	-69.94	-4.32	-50.08	-36.83	5.98
Milk & Dairy	95.90	91.00	111.14	111.07	-95.32	-95.37
Forestry & Wood products	-198.73	-220.65	-202.70	-205.53	-1.09	9.80
Fishing	-1.69	-3.32	-1.63	-3.63	-14.07	-13.47
Processed Food	-170.08	-183.94	-187.52	-187.78	82.87	82.60
Beverages and tobacco	148.08	118.03	158.37	131.86	-152.80	-125.88
Fossil Fuels	-134.28	-180.15	55.20	55.01	-324.50	-323.08
Other minerals	-47.30	-67.91	21.31	20.84	-155.67	-146.07
Textiles	-495.01	-485.14	-1,222.3	-1,181.0	816.79	829.76
Wearing apparel	-727.37	-735.42	-2,047.7	-2,031.0	1,973.6	1,978.4
Leather and products	-1,505.3	-1,509.6	-3,393.6	-3,388.2	3,242.6	3,259.7
Paper	250.10	302.48	312.35	391.40	-341.75	-374.08
Chemical, rubber, plastic products	947.70	1,119.2	1,374.2	1,768.1	-1,372.5	-1,459.5
Metal products	-124.05	-184.83	382.10	470.27	-517.55	-493.61
Motor vehicles and parts	1,064.0	1,069.5	1,371.9	1,477.9	-903.53	-945.85
Other transport	120.64	243.67	289.69	496.97	-280.64	-372.55

equipment						
Electronics	-265.63	-284.73	-75.58	21.31	47.20	73.48
Other machinery	1,284.8	1,782.0	2,427.0	3,298.2	-725.31	-810.71
Other manufacturing	-96.37	-147.25	59.45	66.71	-79.28	-75.63
Utilities: Energy	-23.13	-30.99	1.30	0.89	-3.44	-2.61
Other Utilities	-27.78	-42.00	13.36	12.75	-26.46	-24.97
Other Services	-151.77	-259.08	185.98	182.54	-280.93	-274.41
Other transport	-73.53	-130.09	99.21	97.14	-128.31	-123.74
Water transport	-13.96	-22.10	8.52	8.07	-11.10	-10.04
Financial services	-117.39	-165.35	39.80	38.87	-52.04	-49.89
Other business services	-147.44	-265.69	267.17	266.26	-258.24	-256.59

Source: CGE modelling results

Notes: C = conservative scenario under EU-Indonesia FTA only; A=ambitious scenario under EU-Indonesia FTA only;

Table 36: CGE Modelling Results – Impacts on sectoral output for the EU and Indonesia (% change and Value in constant 2011 dollars)

Sector	EU				Indonesia			
	% Change		Value (mil USD)		% Change		Value (mil USD)	
	C	A	C	A	C	A	C	A
Rice	-0.20%	-0.70%	-7.69	-32.81	0.00%	0.00%	-32.07	3.26
Other Agricultural Products	0.00%	0.00%	-8.41	-22.25	0.00%	0.00%	-0.36	8.58
Vegetables, fruit, nuts	0.00%	0.00%	-24.34	-28.98	0.00%	0.00%	-1.46	5.09
Vegetable Oils and Oilseeds	-0.60%	-0.60%	-457.57	-463.77	-0.10%	0.00%	-58.13	-42.29
Sugar	0.00%	0.00%	-5.34	-9.54	-0.10%	0.00%	-10.14	-1.17
Red Meat	0.00%	0.00%	-22.02	-28.18	0.50%	0.60%	71.56	75.4
Other animal products	0.00%	0.00%	-26.55	-81.23	0.30%	0.40%	74.71	107.25
Milk & Dairy	0.00%	0.00%	113.6	106.55	-1.00%	-1.00%	-94.69	-91.05
Forestry & Wood products	-0.10%	-0.10%	-221.93	-242.07	0.80%	0.90%	397.36	424.1
Fishing	0.00%	0.00%	-1.48	-2.59	0.00%	0.00%	7.04	8.62
Processed Food	0.00%	0.00%	-138.72	-146.53	0.30%	0.30%	289.3	337.19
Beverages and tobacco	0.00%	0.00%	131.86	113.57	-0.10%	0.00%	-33.03	4.37
Fossil Fuels	0.00%	0.00%	-38.01	-69.05	0.00%	0.00%	-24.24	7.26
Other minerals	0.00%	0.00%	16.92	9.21	-0.10%	0.00%	-83.77	-34.74
Textiles	-0.30%	-0.30%	-743.57	-731.95	2.70%	2.70%	2,548.00	2,591.60
Wearing apparel	-0.30%	-0.30%	-477.05	-477.01	9.60%	9.60%	1,588.30	1,592.00
Leather and products	-1.20%	-1.20%	-1,155.30	-1,154.40	11.70%	11.80%	3,307.00	3,327.80
Paper	0.00%	0.00%	223.07	282.74	-0.60%	-0.60%	-280.21	-300.65
Chemical, rubber, plastic products	0.00%	0.00%	830.28	1,001.30	-0.20%	-0.30%	-566.77	-638.76
Metal products	0.00%	0.00%	414.44	446.26	-0.30%	-0.20%	-390.41	-314.47

Motor vehicles and parts	0.10%	0.10%	1,244.30	1,276.90	-1.70%	-1.70%	-757.84	-760.9
Other transport equipment	0.00%	0.10%	158.13	286.09	-0.80%	-1.00%	-326.42	-425.03
Electronics	0.00%	0.00%	-161.16	-155.47	0.80%	1.00%	191.71	237.83
Other machinery	0.10%	0.10%	1,294.80	1,718.60	-1.10%	-1.20%	-538.03	-594.68
Other manufacturing	0.00%	0.00%	17.19	-6.54	0.10%	0.10%	10.24	24.12
Utilities: Energy	0.00%	0.00%	35.41	45.55	0.10%	0.20%	58.74	71.52
Other Utilities	0.00%	0.00%	125.95	165.84	0.50%	0.60%	1,355.90	1,566.60
Other Services	0.00%	0.00%	478.07	641.63	0.20%	0.20%	1,475.50	1,819.00
Other transport	0.00%	0.00%	-0.85	-16.17	0.10%	0.10%	111.29	145.21
Water transport	0.00%	0.00%	-2.4	-5.87	0.00%	0.00%	-14.73	-12.81
Financial services	0.00%	0.00%	-99.69	-122.84	0.20%	0.20%	126.9	170.71
Other business services	0.00%	0.00%	-5.18	-22.84	-0.30%	-0.20%	-112.35	-87.95

Source: CGE modelling results

Notes: C = conservative scenario under EU-Indonesia FTA only; A=ambitious scenario under EU-Indonesia FTA only;

Annex 3

Stakeholder Consultation Questionnaires

Sustainability Impact Assessment (SIA) in support of free trade agreement (FTA) negotiations between the European Union and the Republic of Indonesia.

For the purpose of conducting the SIA, the Study Team seeks to consult a diverse range of stakeholders through an interview or written contributions to ensure that the assessment is inclusive and well informed.

Please find the surveys from the link below:
https://gallery.mailchimp.com/02183334de20a787e8a959f64/files/61e6c6bf-8ab2-4595-92d9-f399e69bb7bb/10.1._Annex_4_Questionnaires.pdf

This link in the report will remain accessible.

Annex 4

Sectoral Aggregations used in the CGE Model and Product Concordance

Table 37: Sector Aggregations Used in CGE Model and Product Concordance

Sectors	HS Code Concordance (ISIC for services)
Rice	100610 – rice in the husk (paddy or rough) 100620 – husked (brown) rice 100630 - Semi-milled/wholly milled rice, whether/not polished/glazed 100640 – broken rice 11 – products of the milling industry; starches, inulin, wheat gluten (excl. 1107, malt)
Other agricultural products	06 – trees and other plans, live; bulbs, roots and the like; cut flowers (excl. 0604) 09 – coffee, tea, mate and spices (excl. 090112-090210 and 090230, processed coffee and tea) 10 – cereals (excluding rice) 1209 – seeds, fruit and spores; of a kind used for sowing 1210 - Hop cones, fresh or dried, whether or not ground, powdered or in the form of pellets; lupulin 1211 - Plants and parts of plants (including seeds and fruits), of a kind used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes, fresh, chilled, frozen or dried, whether or not cut, crushed or powdered 121299 - Locust beans & sugar cane(excl. of 1212.91), fresh/chilled/ frozen/dried, whether/not ground; fruit stones&kernels&other vegetable products (including unroasted chicory roots of the variety Cichorium intybus sativum) of a kind used primarily for human cons 1213 - Cereal straw and husks, unprepared; whether or not chopped, ground, pressed or in the form of pellets 1214 - Swedes, mangolds, fodder roots, hay, lucerne (alfalfa), clover, sainfoin, forage kale, lupines, vetches and similar forage products, whether or not in the form of pellets 1801 - Cocoa beans; whole or broken, raw or roasted 2308 – Vegetable materials/waste/residues/by-products, whether/not in pellets, of a kind used in animal feeding, n.e.s. 2401 - Tobacco, unmanufactured; tobacco refuse 5201 - Cotton, not carded/combed 5001 - Silk-worm cocoons suit. for reeling 5101 – wool, not carded or combed 5102 – fine or coarse animal hair, not carded or combed 530110 – flax, raw/retted 530210 - True hemp (Cannabis sativa L.), raw/retted 530310 - Jute & other textile bast fibres, raw/retted 5305 - Coconut, abaca (Manila hemp/Musa textilis Nee), ramie&other vegetable textile fibres, not elsewhere specified/incld., raw/processed but not spun; tow, noils&waste of these fibres (including yarn waste&garnetted stock).
Vegetables, fruit, nuts	07 – edible vegetables and certain roots and tubers (excl. 0710, 0711, 0712, frozen vegetables) 08 – edible fruits and nuts; peel of citrus fruit or melons (excl. 0811 and 0812, frozen fruits)
Sugar	1701 – Cane or beet sugar 170220 – Maple sugar & maple syrup 1703 – Molasses 121291 - Sugar beet, fresh/chilled/frozen/dried, whether/not ground
Red meat	0101 – live horses 0102 – live bovine animals 0104 – live sheep/goats 0201 – meat of bovine animals (fresh or chilled) 0202 – meat of bovine animals (frozen) 0204 – meat of sheep 0205 - meat of horses 0206 – edible offals 0209 – pig/poultry fat (not rendered) 051110 – bovine semen 1501 – pig fat (other than incl. in 0209)

	1502 – fats of bovine animals, sheep or goats (other than in 1503) 1505 – Wool grease and fatty substances derived therefrom (incl. lanolin)
Other animal products	0103 – live swine 0105 – live fowls 0106 – other live animals, n.e.c. 0203 – meant of swine; fresh, chilled or frozen 0207 - Meat and edible offal of poultry; of the poultry of heading no. 0105, (i.e. fowls of the species Gallus domesticus), fresh, chilled or frozen 0208 - Meat and edible meat offal, n.e.c. in chapter 2; fresh, chilled or frozen 0210 - Meat and edible meat offal; salted, in brine, dried or smoked; edible flours and meals of meat or meat offal 030760 - Snails (excl. sea snails) 0407 - Birds' eggs, in shell, fresh/preserved/cooked 0409 – natural honey 0410 - Edible products of animal origin, n.e.s. 0502 - Pigs', hogs' or boars' bristles and hair; and waste thereof 0504 – Guts, bladders & stomachs of animals (other than fish), whole & pieces thereof , fresh/chilled/frozen/salted/in brine/dried/smoked 0505 - Skins and other parts of birds with feathers, down; feathers, down and parts thereof; not further worked than cleaned, disinfected, treated for preservation; powder, waste and parts of feathers 0506 - Bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised; powder and waste of these products 0507 - Ivory, tortoise-shell, whalebone and whalebone hair, horns, antlers, hooves, nails, claws and beaks unworked or simply prepared, not cut to shape; waste and powder of these products 0510 - Ambergris, castoreum, civet and musk; cantharides; bile, dried or not glands, other animal products used in preparation of pharmaceutical products, fresh chilled, frozen or otherwise provisionally preserved 051199 - Animal products not elsewhere specified/incld. (excl. of 0511.10); dead animals of Ch. 1, unfit for human consumption 1503 - Lard stearin, lard oil, oleostearin, oleo-oil & tallow oil, not emulsified/mixed/othw. Prepared 1504 - Fats and oils and their fractions of fish or marine mammals; whether or not refined, but not chemically modified 1506 - Animal fats and oils and their fractions; whether or not refined, but not chemically modified, n.e.c. in chapter 15 152190 - Beeswax, other insect waxes & spermaceti, whether/not refined/coloured 1601 - Sausages and similar products of meat, meat offal or blood; food preparations based on these products 1602 - Prepared or preserved meat, meat offal or blood (excl. 160210) 1603 – Extracts and juices of meat, fish or crustaceans, molluscs or other aquatic invertebrates 230110 - Flours, meals & pellets of meat/meat offal; greaves 4101 - Raw hides and skins of bovine (including buffalo) or equine animals (fresh, salted, dried, limed, pickled, otherwise preserved but not tanned, parchment dressed or further prepared), whether or not dehaired or split 4102 - Raw skins of sheep or lambs (fresh, salted, dried, limed, pickled or otherwise preserved, but not further prepared), whether or not with wool on or split 4103 - Raw hides and skins n.e.c in headings no. 4101, 4102; fresh, salted, dried, pickled or otherwise preserved, not further prepared, whether or not dehaired or split 4301 - Raw furskins (including heads, tails, paws, other pieces or cuttings, suitable for furriers' use), excluding raw hides and skins of heading no. 4101, 4102 or 4103
Milk & Dairy	0401 – milk and cream (unsweetened) 0402 – mil and cream (sweetened) 0403 – buttermilk and yogurt 0404 – whey and products consisting of natural milk constituents 0405 – butter 0406 – cheese and curd 17021 – lactose and lactose syrup 2105 – ice cream 35011 – casein
Fishing	0301 – live fish 0302 – Fresh/chilled fish (excl. those of 0304) (excluding 030270, fish livers & roes)

	030621 – Rock lobster & other sea crawfish (Palinurus spp., Panulirus spp., Jasus spp.), whether/not in shell, other than frozen 030622 - Lobsters (Homarus spp.), whether/not in shell, other than frozen 030623 - Shrimps & prawns, whether/not in shell, other than frozen 030624 - Crabs, whether/not in shell, other than frozen 030629 - Crustaceans, other than frozen (excl. of 0306.21-0306.24); flours/meals/pellets of crustaceans, fit for human consumption, other than frozen 030710 - Oysters, whether/not in shell, live/fresh/chilled/frozen/dried/salted/in brine 030721 - Scallops, incl. queen scallops (genera Pecten/Chlamys/Placopecten), live/fresh/chilled 030731 - Mussels (Mytilus spp., Perna spp.), live/fresh/chilled 030741 - Cuttle fish (Sepia officinalis, Rossia macrosoma, Sepiola spp.) & squid (Ommastrephes spp., Loligo spp., Nototodarus spp., Sepioteuthis spp.), live/fresh/chilled 030751 - Octopus (Octopus spp.), live/fresh/chilled 030791 - Molluscs & invertebrates (excl. of 0307.10-0307.60), live/fresh/chilled 0508 – Coral and other similar materials 121220 – seaweeds & other algae 710110 – natural pearls 710121 – cultured pearls (unworked)
Processed food	03270 - Fish livers & roes, fresh/chilled 0303 - Fish; frozen, excluding fish fillets and other fish meat of heading 0304 0304 - Fish fillets and other fish meat (whether or not minced); fresh, chilled or frozen 0305 - Fish, dried, salted or in brine; smoked fish, whether or not cooked before or during the smoking process; flours, meals and pellets of fish, fit for human consumption 030611 - Rock lobster & other sea crawfish (Palinurus spp., Panulirus spp., Jasus spp.), whether/not in shell, frozen 030612 - Lobsters (Homarus spp.), whether/not in shell, frozen 030613 - Shrimps & prawns, whether/not in shell, frozen 030614 - Crabs, whether/not in shell, frozen 030619 - Frozen crustaceans (excl. of 0306.11-0306.14); frozen flours/meals/pellets of crustaceans, fit for human consumption 030729 - Scallops, incl. queen scallops (genera Pecten/Chlamys/Placopecten), other than live/fresh/chilled 030739 - Mussels (Mytilus spp., Perna spp.), other than live/fresh/chilled 030749 - Cuttle fish (Sepia officinalis, Rossia macrosoma, Sepiola spp.) & squid (Ommastrephes spp., Loligo spp., Nototodarus spp., Sepioteuthis spp.), other than live/fresh/chilled 030759 - Octopus (Octopus spp.), other than live/fresh/chilled 030799 - Molluscs & invertebrates (excl. of 0307.10-0307.60), frozen/dried/salted/in brine; incl. flours/meals/pellets of aquatic invertebrates other than crustaceans, fit for human consumption 0408 - Birds' eggs, not in shell; egg yolks, fresh, dried, cooked by steaming or boiling in water, moulded, frozen or otherwise preserved, whether or not containing added sugar or other sweetening matter 051191 - Products of fish/crustaceans, molluscs/other aquatic invertebrates; dead animals of Ch.3, unfit for human consumption 0710 - Vegetables (uncooked or cooked by steaming or boiling in water); frozen 0711 - Vegetables provisionally preserved; (e.g. by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions), but unsuitable in that state for immediate consumption 0712 - Vegetables, dried; whole, cut, sliced, broken or in powder, but not further prepared 0811 - Fruit and nuts; uncooked or cooked by steaming or boiling in water, frozen, whether or not containing added sugar or other sweetening matter 0812 - Fruit and nuts provisionally preserved; e.g. by sulphur dioxide gas, brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption 0814 - Peel of citrus fruit or melons (including watermelons); fresh, frozen dried or provisionally preserved in brine, in sulphur water or in other preservative solutions 090112 - Coffee, not roasted, decaffeinated 090121 - Coffee, roasted, not decaffeinated 090122 - Coffee, roasted, decaffeinated 090190 - Coffee husks & skins; coffee substitutes containing coffee in any proportion 090210 - Tea, green (not fermented), whether/not flavoured, in immediate packings of a content not >3kg 090230 - Tea, black (fermented) & partly fermented tea, whether/not flavoured, in immediate packings of a content not >3kg 11 – products of the milling industry; starches, inulin, wheat gluten (excluding 1007 malt) 1302 - Vegetable saps and extracts; pectic substances, pectinates and pectates; agar-agar and other

	mucilages and thickeners, whether or not modified, derived from vegetable products 160210 - Homogenised preparations of prepared/preserved meat/meat offal 1604 - Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs 1605 - Crustaceans, molluscs and other aquatic invertebrates, prepared or preserved 170230 - Glucose & glucose syrup, not containing fructose/containing in the dry state < 20% by weight of fructose 170240 - Glucose & glucose syrup, containing in the dry state at least 20% but < 50% by weight of fructose (excl. invert sugar) 170250 - Chemically pure fructose 170260 - Fructose (excl. chemically pure fructose) & fructose syrup, containing in the dry state >50% by weight of fructose (excl. invert sugar) 170290 - Sugars, incl. invert sugar & other sugar & sugar syrup blends containing in the dry state 50% by weight of fructose (excl. of 1702.11-1702.60) 1704 - Sugar confectionery (including white chocolate), not containing cocoa 18 – cocoa and cocoa preparations (excl. 1801, cocoa beans) 19 – preparations of cereals, flour, starch or milk; pastrycooks' products 20 – preparations of vegetables, fruit, nuts or other parts of plants 21 – miscellaneous edible preparations (excl. 2105, ice cream) 2209 - Vinegar and substitutes for vinegar obtained from acetic acid 230120 - Flours, meals & pellets of fish/of crustaceans, molluscs/other aquatic invertebrates 2302 - Bran, sharps and other residues; whether or not in the form of pellets derived from the sifting, milling or other working of cereals or of leguminous plants 2303 - Residues of starch manufacture, similar residues; beet-pulp, bagasse and other waste of sugar manufacture, brewing or distilling dregs and waste, whether or not in the form of pellets (excl. 230330) 2309 - Preparations of a kind used in animal feeding 350211 - Dried egg albumin 350219 - Egg albumin (excl. dried) 350510 - Dextrins & other modified starches
Beverages & tobacco	1107 – malt 22 – beverages and spirits (excluding 2209, vinegar) 23033 - Brewing/distilling dregs & waste, whether/not in pellets 2307 – wine lees; argol 2402 – cigars, cheroots, cigarillos and cigarettes of tobacco or tobacco substitutes 2403 – manufactured tobacco and tobacco substitutes n.e.c
Vegetable Oils & oilseeds	1201 – soya beans 1202 – ground-nuts 1203 – Copra 1204 – Linseed 1205 – rape/colza seeds 140420 – Cotton linters 1507 to 1517 – vegetable oils 152110 – vegetable wax 1522 – degras 2304 to 2306 – Oil cakes from oilseeds and vegetable fats 1206 – Sunflower seeds 1207 – Other seeds 1208 – flours/meals of oilseeds
Fossil fuels	2701 – coal 2702 – lignite 2704 - Coke & semi-coke of coal/lignite/peat, whether/not agglomerated; retort carbon 2706 - Tar distilled from coal/lignite/peat, & other mineral tars, whether/not dehydrated/partially distilled, incl. reconstituted tars 2709 – petroleum oils and oils obtained from bituminous minerals (crude) 2710 - Petroleum oils and oils from bituminous minerals, not crude; preparations n.e.c, containing by weight 70% or more of petroleum oils or oils from bituminous minerals; these being the basic constituents of the preparations; waste oils 2711 – natural gas 2712 - Petroleum jelly; paraffin wax, micro-crystalline petroleum wax, slack wax, ozokerite, lignite wax, peat wax, other mineral waxes, similar products obtained by synthesis, other processes; coloured or not 2713 - Petroleum coke, petroleum bitumen; other residues of petroleum oils or oils obtained from bituminous minerals 271410 - Bituminous/oil shale & tar sands

Other minerals	25 – Salt, Sulphur, earths, stone, plastering, cement 26 – Ores, slag and ash (excl. 260120, 2618, 2619, 2620) 2703 – Peat 271490 – Bitumen & asphalt, natural; asphaltites & asphaltic rocks 2715 - Bituminous mixtures based on natural asphalt/natural bitumen/petroleum bitumen/mineral tar/mineral tar pitch (e.g., bituminous mastics, cut-backs) 281810 - Artificial corundum, whether/not chemically defined 3801 – artificial graphite 3816 - Refractory cements, mortars, concretes and similar compositions; other than products of heading no. 3801 382450 - Non-refractory mortars & concretes 68 – stone, plater, cement, asbestos, mica or similar materials; articles thereof 69 – ceramic products 70 – glassware 7102 – diamonds (excl. 710229, 710239) 7103 – precious and semi-precious stones (excl. 710391, 710399 854610 - Electrical insulators, of glass 854620 - Electrical insulators, of ceramics 854710 - Insulating fittings for electrical machines/appliances/equip., of ceramics (excl. of 8546.20) 940591 - Parts of the lamps & lighting fittings of 94.05, of glass
Forestry & Wood	0604 - Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, mosses and lichens; suitable for bouquets or for ornamental purposes, fresh, dried, dyed, bleached, impregnated etc. 1301 – lac; natural gums, resins gum-resins and oleoresins 14 – vegetable plaiting materials (bamboos, rattans, etc); vegetable products n.e.s (excl. 140420 cotton linters) 400130 - Balata, gutta-percha, guayule, chicle & similar natural gums 44 – wood and articles of wood (excl. 4402, wood charcoal) 45 – cork and articles of cork 46 – Manufactures of straw, esparto or other plaiting materials; basketware and wickerwork 9401 – seats and parts thereof 9403 – furniture and parts thereof (n.e.c. in 94) 9404 – mattresses and mattress supports (excl. 940430 and 940490) 9610 – Slates and boards, with writing or drawing surfaces, whether or not framed
Textiles	50 – silk (excl. 5001, silk-worm cocoons) 51 – wool (excl. 5102, fine/coarse animal hair) 52 – cotton (excl. 5201, cotton not carded or combed) 53 – vegetable textile fibres (excl. 530110, 530210, 5305) 54 – man-made filaments; strips and the like of man-made textile materials 55 – man-made staple fibres 56 – wadding, felt and nonwovers, special yarns; twine, cordage, ropes and cables and articles thereof 57 – carpets and other textile floor coverings 58 – fabrics; special woven fabrics, tufted textile fabrics, lace, tapestries, trimmings, embroidery 59 – Textile fabrics; impregnated, coated, covered or laminated; textile articles of a kind suitable for industrial use (excl. 5904 linoleum; 5905, 590610, 590691) 60 – fabrics; knitted or crocheted 6109 – T-shirts, singlets and other vests (knitted or crocheted) 6110 – jerseys, pullovers, cardigans, waistcoats and similar articles (knitted or crocheted) 6115 – hosiery (knitted or crocheted) 63 – textiles, made up articles; sets (excl. 630110, 6309, worn articles, and 6310, rags) 8804 – parachutes 940430 – sleeping bags 940490 – other articles of bedding
Wearing apparel	4203 – articles of apparel and clothing accessories, of leather or of composition leather (excl. 420321) 43 – furskins and artificial fur (excl. 4301) 61 – apparel and clothing accessories; knitted or crocheted (excl. 6109, 6110, 6115 – t-shirts, jerseys/pullovers, and hosiery) 62 – apparel and clothing accessories; not knitted or crocheted

	65 – headgear and parts thereof (excl. 650610 and 650691)
Leather and products	41 – leather (4104 to 4107; 4112 to 4115) 4201 – saddlery and harness for any animal 4202 – trunks; suit, camera, jewellery, cutlery cases; travel, tool, similar bags, wholly or mainly covered by leather 4205 – leather or composition leather articles, n.e.c. in 42 64 – footwear; gaiters and the likep parts of such articles 911390 – Watch straps, watch bands & watch bracelets, & parts thereof , n.e.s. in 91.13 9605 - Travel sets for personal toilet/sewing/shoe/clothes cleaning
Paper	3804 - Residual lyes from the manufacture of wood pulp 47 – pulp of wood or other fibrous cellulosic material; recovered paper or paperboard 48 – paper and paperboard; articles of paper pulp, of paper or paperboard 49 – printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans 5905 – textile wall coverings 844250 – Printing type, blocks, plates, cylinders & other printing components; blocks, plates, cylinders & lithographic stones, prepared for printing purposes (e.g., planed/grained/polished)
Chemical, rubber & plastic products	1518 - Animal/vegetable fats & oils & their fractions, boiled/oxidised/dehydrated/sulphurised/blown/ polymerised by heat in vacuum/in inert gas/othw. chemically modified, excluding those of heading 15.16; inedible mixtures/preparations of animal/vegetable fats/ 1520 - Glycerol, crude; glycerol waters & glycerol lyes 260120 – roasted iron pyrites 2707 – oils and other products of the distillation of high temperature oal tar 2708 - Pitch and pitch coke; obtained from coal tar or from other mineral tars 28 – inorganic chemicals (excl. 281810, 281820, 29 – organic chemicals 30 – pharmaceutical products 31 – fertilisers 32 – tanning or dyeing extracts; tannings and their derivatives; dyes, pigments and other colouring matter; paints, varnishes; putt, other mastics; inks 33 – essential oils and resinoids; perfumery, cosmetic or toilet preparations 34 – soap, organic surface-active agents; washing, lubricating, polishing or scouring preparation (excl. 3406 candles) 35 – albuminoidal substances; modified starches; glues; enzymes (excl. 350110, 35021, 350510) 36 – explosives; pyrotechnic products (excl. 3605 and 3606) 37 – photographic or cinematographic goods (excl. 3704, 3705, 3706) 38 – chemical products N.E.C. (excl. 3801, 3804, 3816, 382450, 3826) 39 – plastics and articles thereof 40 – rubber and articles thereof (excl. 400130) 4402 – wood charcoal 590610 – Adhesive tape of a width not >20cm 590691 - Rubberised textile fabrics (excl. of 59.02 & 5906.10), knitted/crocheted 6506 – headgear, n.e.c. in chapter 65 (excl. 650699) 7104 - Synthetic, reconstructed precious, semi-precious stone worked, graded or not, not strung or mounted, set; ungraded synthetic, reconstructed precious, semi-precious stones, temporarily strung for transport (excl. 710490) 840130 - Fuel elements (cartridges), non-irradiated 852321 - Magnetic media for the recording of sound/of other phenomena, but excl. products of Ch. 37., cards incorporating a magnetic stripe 852329 - Magnetic media for the recording of sound/of other phenomena, but excl. products of Ch. 37., other than cards incorporating a magnetic stripe 852340 - Optical media for the recording of sound/of other phenomena, but excl. products of Ch. 37. 853670 - Connectors for optical fibres, optical fibre bundles/cables 854720 - Insulating fittings for electrical machines/appliances/equip., of plastics (excl. of 8546.90) 940592 - Parts of the lamps & lighting fittings of 94.05, of plastics
Metal products	2618 - Granulated slag (slag sand) from the manufacture of iron/steel 2619 - Slag, dross (excl. granulated slag), scalings & other waste from the manufacture of iron/steel 2620 - Slag, ash and residues; (not from the manufacture of iron or steel) containing metals, arsenic or their compounds 281820 - Aluminium oxide (excl. artificial corundum) 7106 – silver (unwrought or in semi-manufactured or powder form)

	7107 - Base metals clad with silver, not further worked than semi-manufactured 7108 - Gold (including gold plated with platinum) unwrought or in semi-manufactured forms, or in powder form 7109 - Base metals/silver, clad with gold, not further worked than semi-manufactured 7110 - Platinum; unwrought or in semi-manufactured forms, or in powder form 7111 - Base metals/silver/gold, clad with platinum, not further worked than semi-manufactured 7112 - Waste and scrap of precious metal or of metal clad with precious metal; other waste and scrap containing precious metal compounds, of a kind uses principally for the recovery of precious metal 711510 - Catalysts in the form of wire cloth/grill, of platinum 72 – iron and steel 73 – iron or steel articles (excl. 731511, 731512, 731519, 7321, 732290) 74 – copper and articles thereof 75 – nickel and articles thereof 76 – aluminium and articles thereof 78 – lead and articles thereof 79 – zinc and articles thereof 80 – tin and articles thereof 81 – metals, n.e.c., cermets and articles thereof 82 – tools, implements, cutlery, spoons and forks, of base metal; parts thereof, of base metal 83 – metal; miscellaneous products of base metal 840110 – nuclear reactors 840140 – parts of nuclear reactors 8402 – boilers; steam or other vapour generating (other than central heating hot water boilers) 8403 – central heating boilers 8404 - Auxiliary plant for use with boilers of heading no. 8402 or 8403; e.g. economisers, super-heaters, soot removers, gas recoverers), condensers for steam or other vapour power units 848710 - Ships'/boats' propellers & blades therefor 9307 - Swords, cutlasses, bayonets, lances & similar arms & parts thereof & scabbards & sheaths therefor 9406 - Prefabricated buildings
Motor vehicles & parts	84073 – engines; reciprocating piston of a kind used for the propulsion of vehicles of chapter 87 840820 - Compression-ignition internal combustion piston engines (diesel/semi-diesel engines) of a kind used for the propulsion of vehicles of Ch.87 840991 - Parts suit. for use solely/principally with spark-ignition internal combustion piston engines 840999 - Parts suit. for use solely/principally with the engines of 84.07/84.08 (excl. of 8409.10 & 8409.91) 8609 – containers specially designed and equipped for carriage by one or more modes of transport 870120 - Road tractors for semi-trailers (excl. of 87.09) 8702 – vehicles; public transport passenger type 8703 – motor cars and other motor vehicles; principally designed for the transport of persons 8704 – vehicles; for the transport of goods (excl. 870410 8705 – special purpose motor vehicles; not those for the transport of persons or goods 8706 – chassis; fitted with engines, for motor vehicles of heading 8701-05 8707 – bodies; (including cabs) for the motor vehicles of heading 8701-05 8708 – motor vehicles; parts and accessories, of heading 8701-05 8716 – trailers and semi-trailers; other vehicles, not mechanically propelled; parts thereof (excl. 871620 & 871680)
Other transport equipment	840710 - Spark-ignition reciprocating/rotary internal combustion piston engines for aircraft 840910 - Parts suit. for use solely/principally with the aircraft engines of 84.07 8411 – turbo-jets, turbo-propellers and other gas turbines (excl. 841181, 841182, 841199) 841210 - Reaction engines other than turbo-jets 86 – railway, tramway locomotives, rolling-stock and parts thereof; railway and tramway track fixtures and fittings and parts thereof; mechanical traffic signaling equipment of all kinds (excl. 8609) 8711 – motorcycles 8712 – bicycles 8713 – carriages for disabled persons 8714 – vehicles; parts and accessories of heading 8711-13 871680 - Other vehicles, not mechanically propelled, n.e.s. 88 – aircraft, spacecraft and parts thereof (excl. 8804) 89 – ships, boats and floating structures
Electronics	844312 - Offset printing machinery, sheet-fed, office type (sheet size not >22 x 36cm) 844331 - Machines which perform two/more of the functions of printing, copying/facsimile transmission, capable of

	connecting to an automatic data processing machine/to a network 844332 - Other printers, copying machines & facsimile machines, whether/not combined , exclud the ones which perform two/more of the functions of printing, copying/facsimile transmission; capable of connecting to an automatic data processing machine/to a network 844339 - Other printers, copying machines & facsimile machines, whether/not combined , excl. 8443.31 & 8443.32 844399 - Other parts & accessories for printing machinery excl. 8443.91 8469 - Typewriters other than printers of heading 84.43; word-processing machines. 8470 - Calculating machines and pocket-size data recording, reproducing and displaying machines with calculating functions; accounting machines, postage-franking machines, ticket-issuing machines and similar, incorporating a calculating device; cash registers 8471 - Automatic data processing machines and units thereof, magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included 8472 - Office machines; not elsewhere classified 8473 - Machinery; parts and accessories (other than covers, carrying cases and the like) suitable for use solely or principally with machines of headings 84.70 to 84.72 8517 - Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data (including wired/wireless networks), excluding items of 8443, 8525, 8527, or 8528 (excl. 851770) 8518 - Microphones and their stands; loudspeakers, mounted or not in their enclosures; headphones and earphones, combined or not with a microphone, and sets of a microphone and one or more loudspeakers; audio frequency and electric sound amplifiers and sets 8519 - Sound recording or reproducing apparatus 8521 - Video recording or reproducing apparatus 8522 - Sound or video recording apparatus; parts and accessories suitable for use solely or principally with the apparatus of heading 8519 or 8521 852352 - Semi-conductor media, Smart cards for the recording of sound/of other phenomena, but excl. products of Ch. 37. 852550 - Transmission apparatus for radio-broadcasting/television 852560 - Transmission apparatus for radio-broadcasting/televison incorporating reception apparatus 852580 - Television cameras, digital cameras & video camera recorders 8527 - Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock. 8528 - Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus 8529 - Transmission apparatus; parts suitable for use solely or principally with the apparatus of heading no. 8525 to 8528 8532 – Electrical capacitors; fixed, variable or adjustable (pre-set) 8533 - Electrical resistors (including rheostats and potentiometers), excluding heating resistors 8534 - Circuits; printed 8540 - Thermionic, cold cathode or photo-cathode valves and tubes (e.g. vacuum, vapour, gas filled valves and tubes, mercury arc rectifying valves and tubes, cathode-ray and television camera tubes) 8541 - Diodes, transistors, similar semiconductor devices; including photovoltaic cells assembled or not in modules or panels, light-emitting diodes (LED), mounted piezo-electric crystals 8542 - Electronic integrated circuits (excl. 854239)
Other machinery	630110 – electric blankets 731511 - Roller chain of iron/steel 731512 - Articulated link chain other than roller chain, of iron/steel 731519 - Parts of articulated link chain of iron/steel 7321 – Stoves, ranges, grates, cookers (those with subsidiary boilers for central heating), barbecues, braziers, gas-rings, plate warmers and similar non-electric domestic appliances and parts, of iron or steel 732290 - Air heaters & hot air distributors (incl. distributors which can distribute fresh/conditioned air), not electrically heated, incorporating a motor-driven fan/blower, & parts thereof , of iron/steel 840120 - Machinery & apparatus for isotopic separation, & parts thereof 8405 - Generators for producer or water gas with or without their purifiers acetylene gas generators and similar water process gas generators, with or without their purifiers 8406 - Turbines; steam and other vapour turbines

	840721 - Spark-ignition reciprocating/rotary internal combustion piston engines for outboard motors 840729 - Spark-ignition reciprocating/rotary internal combustion piston engines for marine propulsion (excl. outboard motors) 840790 - Spark-ignition reciprocating/rotary internal combustion piston engines (excl. of 8407.10-8407.29) 8408 - Compression-ignition internal combustion piston engines (diesel or semi-diesel engines) (excl. 840820) 8410 - Turbines; hydraulic water wheels and regulators therefor 841181 - Gas turbines other than turbo-jets/turbo-propellers, of a power not >5000kW 841182 - Gas turbines other than turbo-jets/turbo-propellers, of a power >5000kW 841199 - Parts of the other gas turbines of 8411.81 & 8411.82 841221 - Linear acting (cylinders) hydraulic power engines & motors 841229 - Hydraulic power engines & motors other than linear acting (cylinders) 841231 - Linear acting (cylinders) pneumatic power engines & motors 841239 - Pneumatic power engines & motors other than linear acting (cylinders) 841280 - Engines & motors n.e.s. in Ch.84 841290 - Parts of the engines & motors of 8412.10-8412.80 8413 - Pumps; for liquids, whether or not fitted with measuring device, liquid elevators 8414 - Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan whether or not fitted with filters 8415 - Air conditioning machines; comprising a motor driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated 8416 - Furnace burners for liquid fuel, for pulverised solid fuel or for gas; mechanical grates, mechanical ash dischargers and similar appliances 8417 - Furnaces and ovens; industrial or laboratory, including incinerators, non-electric 8418 - Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air conditioning machines of heading no. 8415 8419 - Machinery, plant (not domestic), or laboratory equipment; electrically heated or not, (excluding items in 85.14) for the treatment of materials by a process involving change of temperature; including instantaneous or non electric storage water heaters 8420 - Machines; calendering or other rolling machines, for other than metal or glass and cylinders therefor 8421 - Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus for liquids or gases 8422 - Dish washing machines; machinery for cleaning, drying, filling, closing, sealing, capsuling or labelling bottles, cans, boxes, bags, etc, machinery for aerating beverages 8423 - Weighing machines; excluding balances of a sensitivity of 5cg or better, including weight operated counting or checking machines and weights of all kinds 8424 - Mechanical appliances for projecting, dispersing or spraying liquids or powders; fire extinguishers, spray guns, steam, sand blasting machines 8425 - Pulley tackle and hoists other than skip hoists; winches and capstans; jacks 8426 - Derricks, cranes, including cable cranes, mobile lifting frames, straddle carriers and works trucks fitted with a crane 8427 - Fork-lift and other works trucks; fitted with lifting or handling equipmen 8428 - Lifting, handling, loading or unloading machinery; n.e.c. in heading no. 8425, 8426 or 8427 (e.g. lifts, escalators, conveyors, teleferics) 8429 - Bulldozers, graders, levellers, scrapers, angledozers, mechanical shovels, excavators, shovel loaders, tamping machines and road rollers, self-propelled 8430 - Moving, grading, levelling, scraping, excavating, tamping, compacting, extracting or boring machinery, for earth, minerals, or ores; pile drivers and extractors; snow ploughs and snow blowers 8431 - Machinery parts; used solely or principally with the machinery of heading no. 8425 to 8430 8432 - Agricultural, horticultural or forestry machinery for soil preparation or cultivation; lawn or sports-ground rollers 8433 - Harvesting and threshing machinery, straw and fodder balers, grass or hay mowers; machines for cleaning, sorting or grading eggs, fruit or other agricultural produce, other than machinery of heading no 8437 8434 - Milking machines and dairy machinery 8435 - Presses, crushers and similar machinery; used in the manufacture of wine, cider, fruit juices or similar beverages 8436 - Agricultural, horticultural, forestry, poultry-keeping, bee-keeping machinery; including germination plant fitted with mechanical or thermal equipment; poultry incubators and brooders 8437 - Machines for cleaning, sorting, grading seed, grain, dried leguminous vegetables; machinery used in the milling industry for the working of cereals or dried leguminous vegetables, not farm type machinery

	8438 - Machinery n.e.c. in this chapter, for the industrial preparation or manufacture of food or drink; other than machinery for extraction or preparation of animal or fixed vegetable fats or oils 8439 - Machinery; for making pulp of fibrous cellulosic material, or for making or finishing paper or paperboard 8440 - Book-binding machinery; including book-sewing machines 8441 - Machines; for making up paper pulp, paper or paperboard, including cutting machines of all kinds 8442 - Machinery, apparatus and equipment (excluding machines of headings 8456 to 8465) for preparing or making printing components; plates, cylinders and other printing components; lithographic stones prepared for printing purposes (excl. 844250) 8443 - Printing machinery; used for printing by means of plates, cylinders and other printing components of heading 84.42; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof (excl. 844312, 844331, 844332, 844339, 844399) 8444 - Textile machinery; for extruding, drawing, texturing or cutting man-made textile materials 8445 - Textile machinery; spinning, doubling, twisting machines, textile reeling or winding machines and machines for preparing textile yarns for use on machines of heading no. 8446 and 8447 8446 - Weaving machines (looms) 8447 - Knitting machines, stitch-bonding machines and machines for making gimped yarn, tulle, lace, embroidery, trimmings, braid or net and machines for tufting 8448 - Machinery, auxiliary; for use with machines of heading no. 8444 to 8447 (e.g. dobbies, jacquards, automatic stop motions, shuttle changing mechanisms) parts, accessories for machines of heading no. 8444, 8447 8449 - Machinery; for manufacture or finishing felt or non-wovens in the piece or in shapes, including machinery for making felt hats, blocks for making hats 8450 - Household or laundry-type washing machines; including machines which both wash and dry 8451 - Machinery (not of heading no. 8450) for washing, cleaning, wringing, drying, ironing, pressing, bleaching, dyeing, dressing, finishing, coating or impregnating textile yarn, fabrics or made up articles 8452 - Sewing machines; other than book-sewing machines of heading no. 8440; furniture, bases and covers specially designed for sewing machines; sewing machine needles 8453 - Machinery for preparing, tanning or working hides, skins or leather or for making or repairing footwear or other articles of hides, skins or leather, other than sewing machines 8454 - Converters, ladles, ingot moulds and casting machines; of a kind used metallurgy or in metal foundries 8455 - Metal-rolling mills and rolls therefor 8456 - Machine-tools; for working any material by removal of material, by laser or other light or photon beam, ultrasonic, electro-discharge, electro-chemical, electron beam, ionic-beam, or plasma arc processes; water-jet cutting machines 8457 - Machining centres, unit construction machines (single station) and multi-station transfer machines for working metal 8458 - Lathes for removing metal 8459 - Machine-tools; (including way-type unit head machines) for drilling, boring, milling, threading or tapping by removing metal, other than lathes of heading no. 8458 8460 - Machine-tools; for deburring, sharpening, grinding, honing, lapping, polishing or otherwise finishing metal, sintered metal carbides or cermets by means of grinding stones, abrasives or polishing products 8461 - Machine-tools; for planing, shaping, slotting, broaching, gear cutting and grinding, finishing, sawing, cutting off and other tools working by removing metal, sintered metal carbides or cermets n.e.c. 8462 - Machine-tools; (including presses) for working metal by forging, hammering or die-stamping, for bending, folding, straightening, flattening, shearing or punching metal 8463 - Machine-tools; n.e.c. for working metal, sintered metal carbides or cermets without removing material 8464 - Machine-tools; for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold working glass 8465 - Machine-tools; (including machines for nailing, stapling, glueing or otherwise assembling) for working wood, cork, bone, hard plastics or rubber or similar hard materials 8466 - Parts & accessories suited for use only/mainly with machines of headings 8456-8465, including work/tool holders, self-opening dieheads, dividing heads & other special attachments for the machines; tool holders for any type of tool for working in the hand 8467 - Tools; for working in the hand, pneumatic, hydraulic or with self-contained electric or non-electric motor 8468 - Machinery and apparatus for soldering, brazing, welding, whether or not capable of cutting, other than those of heading no. 8515; gas-operated surface tempering machines and appliances 8474 - Machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores in solid form, shaping, moulding machinery for solid mineral fuels 8475 - Machines; for assembling electric or electronic lamps, tubes, valves, flash-bulbs, in glass envelopes, machines for manufacturing or hot working glass or glassware

	8476 - Automatic goods-vending machines (e.g. postage stamp, cigarette, food or beverage machines), including money-changing machines 8477 - Machinery; for working rubber or plastics or for the manufacture of products from these materials, n.e.c. in this chapter 8478 - Machinery; for preparing or making up tobacco, n.e.c. in this chapter 8479 - Machinery and mechanical appliances; having individual functions, n.e.c. in this chapter 8480 - Moulding boxes for metal foundry, moulding patterns, moulds for metals (excluding ingot moulds), metal carbides, glass, mineral materials, rubber or plastics 8481 - Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves 8482 - Ball or roller bearings 8483 - Transmission shafts (including cam and crank) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers; flywheels and pulleys; clutches and shaft couplings 8484 - Gaskets and similar joints of metal sheeting combined with other material or of two or more layers of metal; sets or assortments of gaskets and similar joints, dissimilar in composition, put up in pouches, envelopes or similar packings; mechanical seals 8486 - Machines and apparatus of a kind used solely or principally for the manufacture of semiconductor boules or wafers, semiconductor devices, electronic integrated circuits or flat panel displays; machines and apparatus specified in note 9-C to this Chapter 848790 - Parts & accessories of machines & apparatus of a kind used solely/principally for the manufacture of semiconductor boules/wafers, semiconductor devices, electronic integrated circuits/flat panel displays; machines & apparatus specified in Note 9 (C) to t 8501 – electric motors and generators (excl. generating sets) 8502 – electric generating sets and rotary converters 8503 - Electric motors and generators; parts suitable for use solely or principally with the machines of heading no. 8501 or 8502 8504 - Electric transformers, static converters (e.g. rectifiers) and inductors 8505 - Electro-magnets; permanent magnets, intended permanent magnets; electro-magnetic, permanent magnet chucks, clamps, similar; electromagnetic couplings, clutches, brakes; electro-magnetic lifting heads 8506 - Cells and batteries; primary 8507 - Electric accumulators, including separators therefor; whether or not rectangular (including square) 8508 - Vacuum cleaners 8509 - Electro-mechanical domestic appliances; with self-contained electric motor, other than vacuum cleaners of heading 85.08. 8510 - Shavers, hair clippers and hair removing appliances, with self-contained electric motor 8511 - Ignition or starting equipment; used for spark-ignition or compression-ignition internal combustion engines; generators and cut outs used in conjunction with such engines 8512 - Lighting or visual signalling equipment (excluding articles of heading no. 8539), windscreen wipers, defrosters and demisters; electrical, of a kind used for cycles or motor vehicles 8513 - Lamps; portable, electric, designed to function by their own source of energy (e.g. dry batteries, accumulators, magnetos), excluding lighting equipment of heading no. 8512 8514 - Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss 8515 - Electric (electrically heated gas) soldering, brazing, welding machines and apparatus, capable or not of cutting, electric machines and apparatus for hot spraying of metals or sintered carbides 8516 - Electric water, space, soil heaters; electro-thermic hair-dressing apparatus; hand dryers, irons; electro-thermic appliances for domestic purposes; electro heating resistors, not of heading no. 8545 851170 - Parts of telephone sets, incl. telephones for cellular networks/for other wireless networks; other apparatus for the transmission/reception of voice, images/other data, incl. apparatus for communication in a wired/wireless network (such as a local/wide a 852351 - Semi-conductor media, solid-state non-volatile storage devices, for the recording of sound/of other phenomena, but excl. products of Ch. 37. 852359 - Other semi-conductor media, for the recording of sound/of other phenomena, but excl. products of Ch. 37., other than Smart Cards & Solid-state non-volatile storage devices 852380 - Discs, tapes, solid-state non-volatile storage devices, smart cards & other media for the recording of sound/of other phenomena, whether/not recorded, incl. matrices & masters for the production of discs, but excl. products of Ch.37., other n.e.s. 8526 - Radar apparatus, radio navigational aid apparatus and radio remote control apparatus 8530 - Signalling, safety or traffic control equipment; for railways, tramways, roads, inland waterways, parking

	facilities, port installations, airfields, excluding those of heading no. 8608 8531 - Signalling apparatus; electric sound or visual (e.g. bells, sirens, indicator panels, burglar or fire alarms), excluding those of heading no. 8512 or 8530 8535 - Electrical apparatus for switching, protecting electrical circuits, for making connections to or in electrical circuits; for a voltage exceeding 1000 volts 8536 - Electrical apparatus for switching, protecting electrical circuits, for making connections to or in electrical circuits, for a voltage not exceeding 1000 volts; connectors for optical fibres, optical fibre bundles or cables (excl. 853670) 8537 - Boards, panels, consoles, desks, cabinets, bases with apparatus of heading no. 8535, 8536 for electricity control and distribution, (other than switching apparatus of heading no. 8517) 8538 - Electrical apparatus; parts suitable for use solely or principally with the apparatus of heading no. 8535, 8536 and 8537 8539 - Lamps; electric filament or discharge lamps, including sealed beam lamp units and ultra-violet or infra-red lamps, arc lamps, light-emitting diode (LED) lamps 854239 - Other Electronic integrated circuits, other than Amplifiers/Memories/Processors & controllers 8543 - Electrical machines and apparatus; having individual functions, not specified or included elsewhere in this chapter 8544 - Insulated wire, cable and other electric conductors, connector fitted or not; optical fibre cables of individually sheathed fibres, whether or not assembled with electric conductors or fitted with connectors 8545 - Carbon electrodes, carbon brushes, lamp carbons, battery carbons and other articles of graphite or other carbon; with or without metal, of a kind used for electrical purposes 854690 - Lamp carbons, battery carbons & other articles of graphite/other carbon, with/without metal, of a kind used for electrical purposes 854790 - Insulating fittings for electrical machines/appliances/equip.(excl. of 85.46, 8547.10 & 8547.20); electrical conduit tubing & joints therefor, of base metal lined with insulating material 8548 - Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators; electrical parts of machinery or apparatus, n.e.c. or included elsewhere in chapter 85 870110 – Pedestrian controlled tractors (excl. of 87.09) 870130 – Track-laying tractors 870190 - Tractors n.e.s. in 87.01 (excl. of 87.09) 870410 - Dumpers designed for off-highway use 8709 - Works trucks, self-propelled, (not fitted with lifting or handling equipment), for factories, warehouses etc, for short distance transport of goods, tractors used on railway station platforms; parts thereof 8710 - Tanks and other armoured fighting vehicles; motorised, whether or not fitted with weapons, and parts of such vehicles 871620 - Self-loading/self-unloading trailers & semi-trailers for agricultural purposes 90 – optical, photographic, cinematographic, measuring, checking, medical or surgical instruments and apparatus; parts and accessories (excl. 9023) 91 – clocks and watches and parts thereof (excl. 911390) 93 – arms and ammunition; parts and accessories thereof (excl. 9307) 9402 - Furniture; medical, surgical, dental or veterinary (e.g. operating tables, hospital beds, dentists' chairs) barbers' chairs; parts 9405 - Lamps, light fittings; including searchlights, spotlights and parts thereof, n.e.c.; illuminated signs, name-plates and the like, having permanently fixed light source and parts thereof n.e.c. or included (excl. 940591 and 940592) 9704 - Postage/revenue stamps, stamp-postmarks, first-day covers, postal stationery (stamped paper), & the like, used/unused, other than of 49.07
Other manufacturing	0501 - Human hair, unworked, whether/not washed/scoured; waste of human hair 3406 - Candles, tapers&the like 3605 - Matches, other than pyrotechnic articles of 36.04 3606 - Ferro-cerium and other pyrophoric alloys in all forms; articles of combustible materials n.e.c. in chapter 36 3704 - Photographic plates, film, paper, paperboard & textiles, exposed but not developed 3705 - Photographic plates and film; exposed and developed, other than cinematographic film 3706 - Cinematographic film; exposed and developed, whether or not incorporating sound track or consisting only of sound track 420321 - Gloves, mittens & mitts, of leather/composition leather, specially designed for use in sports 4206 - Articles of gut (other than silk-worm gut), of goldbeater's skin, of bladders/of tendons 5904 - Linoleum, whether or not cut to shape; floor coverings consisting of a coating or covering applied on a

	textile backing, whether or not cut to shape 6309 - Worn clothing & other worn articles 6310 - Rags; used or new, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables, of textile materials 66 – umbrellas, walking sticks, whips, riding crops, and parts thereof 67 – feathers and down, prepared; and articles made of feather or down; artificial flowers; articles of human hair 720122 – cultured pearls, worked 710239 - Diamonds, non-industrial other than unworked/simply sawn/cleaved/bruted 710391 - Rubies, sapphires & emeralds, worked othw. than simply sawn/roughly shaped but not strung/mounted/set 710399 - Precious stones (excl. diamonds, rubies, saphires & emeralds) & semi-precious stones, whether/not worked/graded but not strung, mounted/set; ungraded precious stones...& semi-precious stones temporarily strung for convenience of transport 710490 - Synthetic/reconstructed precious/semi-precious stones, whether/not worked/graded but not strung, mounted/set; ungraded synthetic/reconstructed precious/semi-precious stones, temporarily strung for convenience of transport. 7105 - Dust and powder of natural or synthetic precious or semi-precious stone 7113 - Jewellery articles and parts thereof, of precious metal or of metal clad with precious metal 7114 - Articles of goldsmiths' or silversmiths' wares and parts thereof, of precious metal or of metal clad with precious metal 711590 - Articles of precious metal/metal clad with precious metal, n.e.s. in Ch.71 7116 - Articles of natural or cultured pearls, precious or semi-precious stones (natural, synthetic or reconstructed) 7117 - Imitation jewellery 7118 – coin 8715 - Baby carriages & parts thereof 9023 - Instruments, apparatus & models designed for demonstrational purposes (e.g., in education/exhibitions), unsuit. for other uses 92 – musical instruments; parts and accessories of such articles 95 – toys, games and sports requisites; parts and accessories thereof 96 – miscellaneous manufactured articles (excl. 9605, 9610) 97 – works of art; collectors' pieces and antiques
Utilities: energy	2716 - Electrical energy (optional heading) 2705 - Coal gas, water gas, producer gas & similar gases (excl. petroleum gases & other gaseous hydrocarbons) 401 – production, collection and distribution of electricity (ISIC) 402 – Manufacture of gas; distribution of gaseous fuels through mains (ISIC) 403 – steam and hot water supply (ISIC)
Other utilities	41 – collection, purification and distribution of water (ISIC) 45 – construction (ISIC)
Water transport	61 – water transport (ISIC)
Other transport	60 – land transport; transport via pipelines (ISIC) 63 – supporting and auxiliary transport activities; activities of travel agencies (ISIC) 62 – air transport (ISIC)
Financial services	65 – financial intermediation, except insurance and pension funding (ISIC) 67 – activities auxiliary to financial intermediation (ISIC) 66 – insurance and pension funding, except compulsory social security
Other business services	K – real estate, renting and business activities (ISIC)
Other services	50 – sales, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel (ISIC) 51 – wholesale trade and commission trade, except of motor vehicles and motorcycles (ISIC) 521 – non-specialised retail trade in stores (ISIC) 522 – retail sale of food, beverages and tobacco in specialized stores (ISIC) 523 – other retail trade of new goods in specialized stores (ISIC) 524 – retail saile of second-hand goods in stores (ISIC) 525 – retail trade in stores (ISIC) 526 – repair of personal and household goods (ISIC)

	55 – hotels and restaurants (ISIC) 64 – post and telecommunications (ISIC) 92 – recreational, cultural and sporting activities (ISIC) 93 – other service activities (ISIC) 95 – private households with employed persons (ISIC) 75 – public administration and defense; compulsory social security 80 – education (ISIC) 85 – health and social work (ISIC) 90 – sewage and refuse disposal, sanitation and similar activities (ISIC) 91 – activities of membership organisations, n.e.c. (ISIC) 99 – extra-territorial organisations and bodies (ISIC) dewellings

Annex 5

Compliance of Indonesia to Key International Labour Organization Conventions

Fundamental Conventions	Date	Status
C029 - Forced Labour Convention, 1930 (No. 29)	12-Jun-50	In Force
C087 - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)	9-Jun-98	In Force
C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98)	15-Jul-57	In Force
C100 - Equal Remuneration Convention, 1951 (No. 100)	11-Aug-58	In Force
C105 - Abolition of Forced Labour Convention, 1957 (No. 105)	7-Jun-99	In Force
C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)	7-Jun-99	In Force
C138 - Minimum Age Convention, 1973 (No. 138)Minimum age specified: 15 years	7-Jun-99	In Force
C182 - Worst Forms of Child Labour Convention, 1999 (No. 182)	28-Mar-00	In Force
Governance (Priority) Convention	**Date**	**Status**
C081 - Labour Inspection Convention, 1947 (No. 81)	29-Jan-04	In Force
C144 - Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144)	17-Oct-90	In Force
Technical Convention	**Date**	**Status**
C019 - Equality of Treatment (Accident Compensation) Convention, 1925 (No. 19)	12-Jun-50	In Force
C027 - Marking of Weight (Packages Transported by Vessels) Convention, 1929 (No. 27)	12-Jun-50	In Force
C045 - Underground Work (Women) Convention, 1935 (No. 45)	12-Jun-50	In Force
C069 - Certification of Ships' Cooks Convention, 1946 (No. 69)	30-Mar-92	In Force
C088 - Employment Service Convention, 1948 (No. 88)	8-Aug-02	In Force
C106 - Weekly Rest (Commerce and Offices) Convention, 1957 (No. 106)	23-Aug-72	In Force
C120 - Hygiene (Commerce and Offices) Convention, 1964 (No. 120)	13-Jun-69	In Force
C185 - Seafarers' Identity Documents Convention (Revised), 2003 (No. 185)	16-Jul-08	In Force
Amendments of 2016 to the Annexes of the Convention No. 185	8-Dec-16	In Force

Source: The International Labour Organization[511]

[511] The International Labour Organisation, Ratifications for Indonesia, accessed 15 May 2018 via: http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102938

Annex 6

Overview of International Human Rights Treaties and Optional Protocols Signed, Ratified or Acceded by Indonesia

Name	Monitoring Body	Signature Date	Ratification Date, Accession (a), Succession (d) Date
International Convention on the Elimination of All Forms of Racial Discrimination	CERD		25-06-1999 (a)
International Covenant on Civil and Political Rights	CCPR		23-02-2006 (a)
International Covenant on Economic, Social and Cultural Rights	CESCR		23-02-2006 (a)
Convention on the Elimination of All Forms of Discrimination against Women	CEDAW	29-07-1980	13-09-1984
Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment	CAT	23-10-1985	28-10-1998
Convention on the Rights of the Child	CRC	26-01-1990	05-09-1990
International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families	CMW	22-09-2004	31-05-2012
International Convention for the Protection of All Persons from Enforced Disappearance	CED	27-09-2010	
Convention on the Rights of Persons with Disabilities	CRPD	30 Mar 2007	30 Nov 2011
Optional Protocol to the Covenant on Economic, Social and Cultural Rights	CESCR		23-02-2006 (a)
Optional Protocol to the International Covenant on Civil and Political Rights	CCPR		
Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the abolition of the death penalty	CCPR		
Optional Protocol to the Convention on the Elimination of Discrimination against Women	CEDAW	29 Jul 1980	13 Sep 1984
Optional protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict	CRC	24-09-2001	24-09-2012
Optional protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography	CRC	24-09-2001	24-09-2012
Optional Protocol to the Convention on the Rights of the Child on a communications procedure	CRC		
Optional Protocol to the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment	SPT		
Optional Protocol to the Convention on the Rights of Persons with Disabilities	CRPD	30-03-2007	30-11-2011

Source: United Nations Office of the Commissioner for Human Rights[512]

[512] United Nations Office of the Commissioner for Human Rights, Ratification Status for Indonesia, accessed 29 March 2018 via: http://www.ohchr.org/EN/Countries/AsiaRegion/Pages/IDIndex.aspx

Annex 7

Compliance of EU and Indonesia to Key International Environmental Conventions

Name	EU	Indonesia	Signature Date	Ratification Date	Status
Paris Agreement	x	x	All: 22-Apr-16	EU: 5-Oct-16 IN: 31-Oct-16	In Force
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	x	x	EU:22-Mar-89 IN: -	EU: 7-Feb-94 IN: 20-Sep-93 (accession)	In Force
Cartagena Protocol on Biosafety to the Convention on Biological Diversity	x	x	All: 24-May-00	EU: 27-Aug-02 IN: 3-Dec-04	In Force
United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa	x	x	EU: 14-Oct-94 IN: 14-Oct-94	EU: 26-Mar-98 IN: 31-Aug-98	In Force
Convention on International Trade in Endangered Species of Wild Fauna and Flora	x	x	EU: - IN: -	EU: 2-Oct-13 IN: 28-Dec-78	In Force
Convention on Biological Diversity	x	x	EU: 10-Jun-92 IN: 5-Jun-92	EU: 5-Apr-94 IN: 18-Feb-94	In Force
United Nations Framework Convention on Climate Change	x	x	EU: 10-Jun-92 IN: 10-Jun-92	EU: 5-Apr-94 IN: 1-Nov-93	In Force
International Tropical Timber Agreement	x	x	EU: 2-Nov-07 IN: 7-Apr-06	EU: 28-Mar-13 IN: 31-Mar-31	In Force
Kyoto Protocol to the United Nations Framework Convention on Climate Change	x	x	EU: 29-Apr-98 IN: 13-Jul-98	EU: 31-May-02 (Approval) IN: 3-Dec-04	In Force
Montreal Protocol on Substances that Deplete the Ozone Layer	x	x	EU: 16-Sep-86 IN: 21-Jul-88	EU: 11-Oct-94 IN: 19-Jun-92	In Force
Minamata Convention on Mercury	x	x	EU: 10-Oct-13 IN: 10-Oct-13	EU: 18-May-17 IN: -	Not in Force in IN, in Force in EU
Stockholm Convention on Persistent Organic Pollutants	x	x	EU: 23-May-01 IN: 23-May-01	EU: 16-Nov-04 (acceptance) IN: 28-Sep-09	In Force
United Nations Convention on the Law of the Sea	x	x	EU: 10-Dec-82 IN: 10-Dec-82	EU: 11-Jun-96 IN: 5-Feb-02	In Force
Convention on International Trade in Endangered Species of Wild Fauna and Flora	x	x	EU: - IN: -	EU: 2-Oct-13 IN: 28-Dec-78	In Force
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	x	x	EU: 11-Sep-98 IN: 11-Sep-98	EU: 20-Dec-02 (acceptance) IN: 24-Sep-13	In Force
Nagoya Protocol on Access to Genetic Resources and their Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity	x	x	EU: 23-Jun-11 IN: 11-May-11	EU: 16-May-14 IN: 24-Sep-14	In Force
ASEAN Agreement on Transboundary Haze Pollution		x	IN: 10-Jun-02	IN: 20-Jan-15	In force
Convention on Wetlands of International Importance especially as Waterfowl Habitat		x	IN: -	IN: 1-Oct-81	In Force

Putrajaya Declaration of Regional Cooperation for the Sustainable Development of the Seas of East Asia		x	IN: March of 2002	?	In Force
Agreement on the Establishment of the ASEAN Centre for Biodiversity		x	IN: 31-Aug-05	IN: -	Not yet in Force
ASEAN Agreement on the Conservation of Nature and Natural Resources		x	IN: 9-Jul-85	IN: 10-Jul-86	Not yet in force
Plant Protection Agreement for the Asia and Pacific Region		x	IN: 28-Jun-56	IN: 21-Dec-67	In Force
Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean	x	x	EU: - IN: 31-Aug-01	EU: 20-Dec-04 (accession) IN: 30-Oct-13	In Force
Convention on the Conservation of Migratory Species of Wild Animals	x		EU: -	EU: -	In Force
Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing	x	x	EU:22-Nov-09 IN: 22-Nov-09	EU: 7-Jul-11 IN: 23-Jun-16	In Force
International Convention on the Control of Harmful Anti-Fouling Systems On Ships		x	IN: -	IN: 11-Sep-14 (accession)	In Force
International Convention on Civil Liability for Bunker Oil Pollution Damage		x	IN: -	IN: 11-Sep-14 (accession)	In Force
Convention on Fishing and Conservation of the Living Resources of the High Seas		x	IN: 8-May-58	IN: -	Not yet in Force
Convention for the Conservation of Southern Bluefin Tuna		x	IN: -	IN: 8-Apr-2008 (Accession)	In Force
Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters	x		EU: 25-Jun-98	EU: 17-Feb-05	In force
African-Eurasian Waterbird Agreement	X		EU: 1-Nov-99	EU: -	In Force
Agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances	x		EU: 13-Sep-83	EU: 24-Sep-84	In Force
Convention for the Protection of the Marine Environment of the North-East Atlantic	x		EU: 22-Sep-92	EU: 5-Nov-97	In Force
Convention on the Conservation of European Wildlife and Natural Habitats	x		EU: 19-Sep-79	EU: 7-May-82	In Force
Convention on Long-Range Transboundary Air Pollution	x		EU: 14-Nov-79	EU: 15-Jul-82	In Force
Convention on the Protection and Use of Transboundary Watercourses and International Lakes	x		EU: 18-Mar-92	EU: 14-Sep-95	In Force
Convention on the Protection of the Marine Environment of the Baltic Sea Area	x		EU: 24-Sep-92	EU: 20-Sep-94	In Force
Convention on the Transboundary Effects of Industrial Accidents	x		EU: 17-Mar-92	EU: 24-Apr-98	In Force
Convention on Environmental Impact Assessment in a Transboundary Context	x		EU: 26-Feb-91	EU: 24-Jun-97	In Force