



PIGA

Partnership for Investment and Growth in Africa

EXPORT POTENTIALS OF ETHIOPIA, KENYA, MOZAMBIQUE AND ZAMBIA













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Contents

Acro	onyms a	and Abb	reviations	vii
1.	Proje	ect and S	Study Objectives	1
2.	Trad	e Struct	ure and Policy	2
	2.1.	Trade	structure	2
		2.1.1.	Ethiopia	2
		2.1.2.	Kenya	3
		2.1.3.	Mozambique	4
		2.1.4.	Zambia	5
	2.2.	Prefer	ential tariff regimes and trade agreements	6
	2.3.	Existin	ng ITC projects and national development plans	6
3.	Meth	nodology	/	9
	3.1.	Data		9
	3.2.	Export	t Potential Indicator (EPI): Growing your current exports	9
	3.3.	Produ	ct Diversification Indicator (PDI): Diversifying into new products	10
	3.4.	Additio	onal indicators	11
	3.5.	Qualita	ative information	11
4.	Resi	ults		13
	4.1.	Ethiop	oia's sectors with export potential	14
		4.1.1.	·	
		4.1.2.	Vegetable-based products	18
		4.1.3.	Cotton and textiles	27
		4.1.4.	Wood and wood products	29
		4.1.5.	Chemicals	30
		4.1.6.	Construction materials	32
	4.2.	Kenya	a's sectors with export potential	34
		4.2.1.	Animal-based products	35
		4.2.2.	Vegetable-based products	41
		4.2.3.	Cotton and textiles	50
		4.2.4.	Wood and wood products	52
		4.2.5.	Chemicals and plastics	54
		4.2.6.	Construction materials	56
		4.2.7.	Miscellaneous manufactured articles	58
	4.3.	Mozar	mbique's sectors with export potential	60
		4.3.1.	Fisheries	61
		4.3.2.	Vegetable-based products	63
		4.3.3.	Cotton and textiles	70
		4.3.4.	Wood and wood products	72
		4.3.5.	Construction materials	74
	4.4.	Zambi	ia's sectors with export potential	76
		4.4.1.	Animal-based products	77
		4.4.2.	Vegetable-based products	79
		4.4.3.	Other agro-based products	83

		4.4.4.	Cotton and textiles	84
		4.4.5.	Rubber and rubber products	86
		4.4.6.	Wood and wood products	87
		4.4.7.	Construction materials	88
	4.5.	New se	ectors with export potential	9 ²
		4.5.1.	Opportunities with export potential to the EU	91
		4.5.2.	Opportunities with export potential to East Africa	94
5.	Sum	mary		98
		,		
List o	of Fig	ures		
			ntries' export destinationstop five export sectors	
			op five export sectors	
			que's top five export sectors	
			top five export sectors	
			high potential sectors	
rıguı Fiaur	е 7. к е 8: М	enya s n lozambio	igh potential sectorsque's high potential sectors	60
Figur	e 9: Z	ambia's	high potential sectors	76
List	of Tab	les		
Table	e 1: Ov	erview o	of priority sectors in ITC projects	7
			of priority sectors in national development plans	
			of institutions metexported products with potential: Live animals and animal products	
			related products for export diversification: Live animals and animal products	
Table	e 6: Etl	hiopia's (exported products with potential: Leather and leather products	17
			exported products with potential: Fruits and vegetables	
			related products for export diversification: Fruits and vegetablesexported products with potential: Nuts, oilseeds and edible oils	
			related products for export diversification: Nuts, oilseeds and edible oils	
Table	e 11: E	thiopia's	exported products with potential: Pulses	23
			s exported products with potential: Spices	
			related products for export diversification: Spicess exported products with potential: Coffee and tea	
			s exported products with potential: Floriculture	
Table	e 16: E	thiopia's	related products for export diversification: Floriculture	26
			s exported products with potential: Other vegetable-based products	
			s exported products with potential: Cotton and textiless related products for export diversification: Cotton and textiles	
			s exported products with potential: Wood and wood products	
Table	21: E	thiopia's	related products for export diversification: Wood and wood products	29
			s exported products with potential: Chemicals	
			related products for export diversification: Chemicalss exported products with potential: Construction materials	
			s related products for export diversification: Construction materials	
Table	e 26: K	čenya's e	exported products with potential: Live animals and animal products	35
			elated products for export diversification: Live animals and animal products	
			exported products with potential: Fisherieselated products for export diversification: Fisheries	
			exported products with potential: Leather and leather products	

Table 31: Kenya's related products for export diversification: Leather and leather products	40
Table 32: Kenya's exported products with potential: Fruits and vegetables	42
Table 33: Kenya's related products for export diversification: Fruits and vegetables	42
Table 34: Kenya's exported products with potential: Nuts, oilseeds and edible oils	
Table 35: Kenya's related products for export diversification: Nuts, oilseeds and edible oils	
Table 36: Kenya's exported products with potential: Pulses	
Table 37: Kenya's related products for export diversification: Pulses	45
Table 38: Kenya's exported products with potential: Cereals	46
Table 39: Kenya's related products for export diversification: Cereals	
Table 40: Kenya's exported products with potential: Coffee and tea	
Table 41: Kenya's exported products with potential: Floriculture	
Table 42: Kenya's exported products with potential: Sugar-related products	
Table 43: Kenya's exported products with potential: Other vegetable-based products	49
Table 44: Kenya's exported products with potential: Cotton and textiles	50
Table 45: Kenya's related products for export diversification: Cotton and textiles	51
Table 46: Kenya's exported products with potential: Wood and wood products	
Table 47: Kenya's related products for export diversification: Wood and wood products	
Table 49: Kenya's related products for export diversification: Chemicals and plastics	
Table 50: Kenya's exported products with potential: Construction materials	
Table 51: Kenya's related products for export diversification: Construction materials	
Table 51: Kerlya's related products for export diversification. Construction materials	57 50
Table 53: Mozambique's exported products with potential: Fisheries	
Table 54: Mozambique's related products for export diversification: Fisheries	62
Table 55: Mozambique's exported products with potential: Fruits and vegetables	63
Table 56: Mozambique's related products for export diversification: Fruits and vegetables	
Table 57: Mozambique's exported products with potential: Nuts, oilseeds and edible oils	
Table 58: Mozambique's related products for export diversification: Nuts, oilseeds and edible oils	
Table 59: Mozambique's exported products with potential: Pulses	
Table 60: Mozambique's related products for export diversification: Pulses	
Table 61: Mozambique's exported products with potential: Cereals	
Table 62: Mozambique's related products for export diversification: Cereals	68
Table 63: Mozambique's exported products with potential: Coffee and tea	69
Table 64: Mozambique's related products for export diversification: Coffee and tea	
Table 65: Mozambique's exported products with potential: Sugar and sugar-related products	70
Table 66: Mozambique's exported products with potential: Cotton and textiles	
Table 67: Mozambique's related products for export diversification: Cotton and textiles	71
Table 68: Mozambique's exported products with potential: Wood and wood products	
Table 69: Mozambique's related products for export diversification: Wood and wood products	73
Table 70: Mozambique's exported products with potential: Construction materials	
Table 71: Mozambique's related products for export diversification: Construction materials	
Table 72: Zambia's exported products with potential: Fisheries	
Table 73: Zambia's related products for export diversification: Fisheries	
Table 74: Zambia's exported products with potential: Leather	
Table 75: Zambia's related products for export diversification: Leather	
Table 76: Zambia's exported products with potential: Oilseeds and oilcakes	
Table 77: Zambia's related products for export diversification: Oilseeds and oilcakes	
Table 78: Zambia's exported products with potential: Cereals	
Table 79: Zambia's related products for export diversification: Cereals	81
Table 80: Zambia's exported products with potential: Floriculture	
Table 81: Zambia's related products for export diversification: Floriculture	
Table 82: Zambia's exported products with potential: Sugar and sugar-related products	
Table 83: Zambia's related products for export diversification: Sugar and sugar-related products	
Table 84: Zambia's exported products with potential: Other agro-based products	
Table 85: Zambia's products for export diversification: Other agro-based products	
Table 87: Zambia's related products for export diversification: Cotton and textiles	
Table 88: Zambia's products for export diversification: Rubber and rubber products	
Table 89: Zambia's exported products with potential: Wood and wood products	
Table 90: Zambia's related products with potential. Wood and wood products	
- rable our Lambia o related producte for expert diversification. Wood and wood products	01

EXPORT POTENTIALS OF ETHIOPIA, KENYA, MOZAMBIQUE AND ZAMBIA

Table 91: Zambia's exported products with potential: Construction materials	89
Table 92: Zambia's related products for export diversification: Construction materials	
Table 93: FDI-trigged product diversification with high potential in the EU market	93
Table 94: FDI-trigged product diversification with high potential in the regional market	96
Table 95: Ethiopia's sectors with export potential in key markets	99
Table 96: Kenya's sectors with export potential in key markets	100
Table 97: Mozambique's sectors with export potential in key markets	102
Table 98: Zambia's sectors with export potential in key markets	103

Acronyms and Abbreviations

COMESA Common Market for Eastern and Southern Africa

DFQF duty-free quota-free

DTIS diagnostic trade integration study

EAC East African Community
EPI Export Potential Indicator

EU European Union

FAO Food and Agriculture Organization

FDI foreign direct investments

GTP Growth and Transformation Plan

HS Harmonized System

ICG International Growth Centre

ISIC International Standard Industrial Classification

LDC least developed country

MFN most-favoured-nation

PDI Product Diversification Indicator

PIGA Partnership for Investment and Growth in Africa

RCA revealed comparative advantage

SADC South African Development Community

SME small and medium-sized enterprise

UNCTAD United Nations Conference on Trade and Development

1. Project and Study Objectives

While Africa has made significant progress in reducing poverty, the continent is yet to fully realize sustainable development. In order to keep the pace of economic growth, Africa needs to enhance trade and investment by augmenting productive capacities, expanding exports and boosting investment flows while ensuring that investment goes to strategic and priority sectors deemed crucial for economic transformation.

Despite recent economic slowdown, the People's Republic of China will continue to be a key player in the global economy, in particular in South-South trade and investment. China is one of the major trading partners and source of foreign direct investments (FDIs) for African countries, including the Federal Democratic Republic of Ethiopia, the Republic of Zambia, the Republic of Mozambique and the Republic of Kenya.

The CADFund-DFID-ITC Partnership for Investment and Growth in Africa (PIGA) aims to enhance trade and investment between China and Africa and promote sustainable development in Africa through addressing the following impediments:

- Lack of information for small and medium-sized enterprises (SMEs) in Africa on market opportunities and requirements.
- Limited capacities of African SMEs to interact with foreign investors.
- Limited supply-side capacity of African producers.
- Regulatory or policy barriers in African countries and/or in export markets.
- Access to finance investment capital and trade finance for African SMEs.

This study helps fill information gaps on market opportunities by assessing the potential for export growth and diversification of the four African beneficiary countries in different markets, notably in China, the European Union (EU) and East Africa. Information on SME participation, job creation and foreign ownership shares is also considered. Data-based desk research and local stakeholder meetings are the two pillars of the analysis that aims to inform about possible areas of intervention.

In a first step, quantitative information about trade and market access available from International Trade Centre (ITC) and in external databases is used to identify a range of existing export products with growth potential and products for export diversification. Existing export strategies, development plans and projects implemented in these countries are reviewed to back the analysis and potentially leverage synergies.

In a second step, qualitative information about the structure and performance of the selected sectors and about their capacity to absorb Chinese investments is collected through meetings with relevant institutions in the four African countries. The findings serve as a cross-check and validation of the quantitative results to come to a final classification of sectors with good chances of export success.

2. **Trade Structure and Policy**

Before embarking on the identification of sectors with export potential in key markets, this section gives an overview of the countries' trade structures, trade policies and national export priorities.

2.1. Trade structure

With exports of more than US\$ 6 billion, Kenya is the biggest exporter of the four PIGA countries, followed by Zambia (US\$ 5.5 billion), Mozambique (US\$ 4.4 billion) and Ethiopia (US\$ 3.3 billion). Partly due to the sectoral composition, the destinations of these countries' exports are very distinct. More than half of Zambia's exports go to China and more than 40% of Mozambique's exports go to the EU to feed these markets' demands for copper and aluminium, respectively. For Kenya, the regional market is very important. The overwhelming part of Kenya's regional trade is with the Republic of Uganda and the United Republic of Tanzania, where it benefits from duty-free market access within the East African Community (EAC). Ethiopia's exports, finally, are geographically diversified. Four out of its top five export destinations are on different continents.

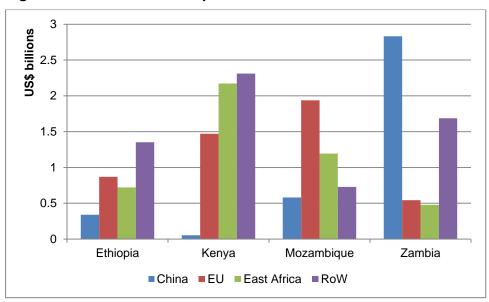


Figure 1: PIGA countries' export destinations

2.1.1. Ethiopia

Ethiopia has a strong agricultural base and, consequently, its exports are dominated by agro-based sectors. The vegetables sector alone accounts for an export value of US\$ 2.3 billion for almost threequarters of total exports. Coffee, sesame seeds, cut flowers and pulses rank high among Ethiopia's vegetable exports and markets for these products can be found around the world (see annex I).

Live animals, minerals, and precious stones and jewellery are smaller in scale, but have experienced strong growth over the past five years. Petroleum oil exports in particular have surged after the discovery of a new oil and gas flow in 2013. While the live animal sector (especially boying animals) is big and growing, related leather industries have, so far, failed to meet the targets set in Ethiopia's 2010/11-2014/15 Growth and Transformation Plan (GTP). Leather exports were planned to reach US\$ 221 million. but currently amount to just less than US\$ 100 million.

¹ Unless otherwise specified, all figures in this report are calculated as five-year averages (2010–2014) of a combination of direct (reported by the country itself) and mirror (reported by the countries' trade partners) data.

² According to www.oilprice.com/Energy/Crude-Oil/Africas-Next-Oil-Frontier-Ethiopia.html, the commercial value of this source is yet uncertain.

<u>Challenge:</u> Ethiopia has failed to raise the share of exports in GDP to 22.5% as targeted in its GTP I plan. As shown, the economy is strongly focussed on agricultural commodities that are subject to price fluctuations. Only 14% of Ethiopia's exports are semi- or fully processed. Due to the narrow export basket and the lack of manufactured exports, price drops cannot be compensated. Accordingly, the GTP II states "improving production capacity, utilizing the opportunities in the international market and encouraging the manufacturing sector to engage in the production of manufactured exports" as the key lessons drawn from the implementation of GTP I.³

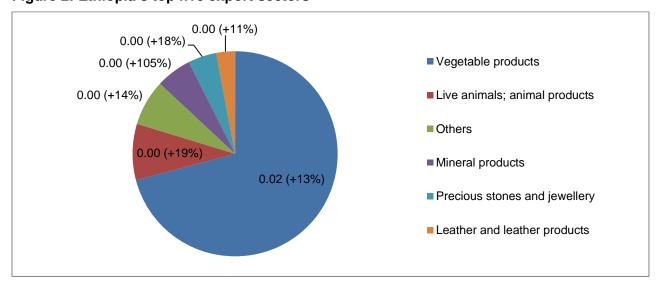


Figure 2: Ethiopia's top five export sectors

Note: Values in US\$ billion. Annual growth between 2010 and 2014 in brackets.

2.1.2. Kenya

Kenya's economy is more diversified than any of the other three countries' economies. Exports of vegetable products stand at US\$ 2.6 billion, but account for less than half of total exports. Black tea is still the biggest single export item with US\$ 1.2 billion, followed by cut flowers and coffee (see annex II). Based on a strong agricultural sector, Kenya has also moved into some processed food and beverages, such as sugar confectionary, prepared fruits and vegetables, and malt beer.

Other important sectors are chemicals, minerals and textiles. A big chunk of Kenya's exports fall in the category "others", which comprises products ranging from hides and skins to precious metals.

<u>Challenge:</u> With 37% of all exports being fully processed, Kenya clearly possesses the most sophisticated export basket among the four countries. Yet, according to the African Transformation Report⁴ and Kenya's Industrial Transformation Programme, structural change has not taken place at the envisaged speed. Agriculture still absorbs 70% of the total workforce and the manufacturing base has remained stable at around 11% of gross domestic product (GDP) over the past decade. Increasing industrial exports is seen as critical for job creation. Kenya's Vision 2030 aims to establish a robust and diversified manufacturing sector through: "1) boosting local production, 2) expanding to the regional market and 3) taking advantage of global market niches." (Kenya's Industrial Transformation Programme, p. 5.)

3

³ The Second Growth and Transformation Plan 2015/16–2019/20 (draft document), www.africaintelligence.com/c/dc/LOI/1415/GTP-II.pdf.

⁴ African Center for Economic Transformation (ACET) (2014): African Transformation Report – Growth with Depth.

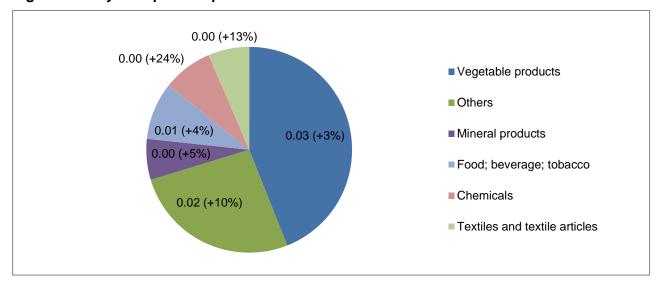


Figure 3: Kenya's top five export sectors

Note: Values in US\$ billion. Annual growth between 2010 and 2014 in brackets.

2.1.3. Mozambique

Since the mid-1990s, Mozambique has turned into a resource-based economy attracting significant foreign investment. Aluminium is Mozambique's most important export product. With an exported value of US\$ 1.4 billion, it accounts for more than 30% of the country's total exports. Yet aluminium exports have been declining over the past five years, whereas mineral products, in particular coal, have been on the rise. Another emerging sector is precious stones and jewellery, increasingly sold to Chinese, American and European customers (see annex III).

Tobacco generates most export revenues among the products that are not directly relying on natural resources. A few vegetable products, like sesame seeds, bananas and sunflower seeds, have seen very fast export growth between 2010 and 2014.

<u>Challenge</u>: The increasing concentration on mineral-based exports is both a blessing and a curse for the country. On the one hand, it attracts significant foreign investment and is a major source of tax revenue to the government; on the other hand, it may entail an appreciation of the exchange rate, thereby hampering the competitiveness of other sectors that are more likely to generate employment and inclusive growth. Given its geographic location and abundance in natural resources, Mozambique has a wide range of opportunities to grow and diversify its exports. Currently, less than 6% of all exports are in finished products. This share could be increased if Mozambique manages to engage in greater processing of its fishery and other agricultural produce and to link its natural resources to light manufacturing. For this to happen, challenges such as limited technical skills and lack of sustainable foreign investment need to be overcome.

⁵ DFID (2015): Mozambique: Inclusive Growth Diagnostics.

0.00 (+25%)

0.00 (+10%)

■ Others

■ Mineral products

■ Precious stones and jewellery

■ Food; beverage; tobacco

■ Metals

■ Wood and wood products

Figure 4: Mozambique's top five export sectors

Note: Values in US\$ billion. Annual growth between 2010 and 2014 in brackets.

2.1.4. Zambia

Even more than Mozambique, Zambia's economy is dominated by natural resources, first and foremost copper. Copper and copper-based products account for more than 85% of total exports and have been growing at an annual rate of 2% for the past five years. Precious stones and jewellery, another highly resource-based sector, experienced faster growth and has, therefore, gained importance in Zambia's export basket. Other sectors with significant contributions to export revenues are tobacco, sugar and cotton. Maize, flowers and other ores complement Zambia's current export offer.

<u>Challenge:</u> Despite government attempts to promote diversification, Zambia's economy is still heavily reliant on copper exports. This makes the country vulnerable to price shocks. Options to expand Zambia's export basket can be found downstream or upstream the copper value chain and in agro-based articles like sugar or cotton. The Diagnostic Trade Integration Study (DTIS) suggests that the regional market could play a central role for export diversification to materialize. Bordering eight countries, Zambia has the possibility to emerge as a regional trade hub. However, this would require the reduction of trade costs that are, according to the interviewed stakeholders, currently hindering greater exports.

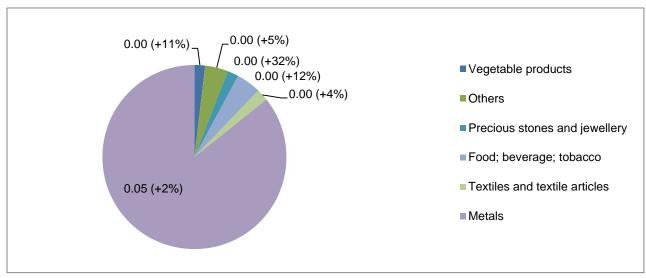


Figure 5: Zambia's top five export sectors

Note: Values in US\$ billion. Annual growth between 2010 and 2014 in brackets.

2.2. Preferential tariff regimes and trade agreements

Ethiopia, Mozambique and Zambia are least developed countries (LDCs), making them eligible to preferential market access conditions in many advanced economies. The EU, for instance, grants full duty-free quota-free (DFQF) access to all exports from LDCs under the Everything But Arms (EBA) initiative. China offers unilateral preferences to 40 LDCs, amongst which are the three African LDCs, Ethiopia, Mozambique and Zambia. China extended its DFQF scheme to cover 95% of all tariff lines in 2013. Coverage reached 97% by the end of 2015.

Other major developed countries also provide LDCs with preferential market access. According to a study by UNCTAD, 89.5% of the value of LDC exports to developed countries was duty-free in 2014. What matters, however, are not the applied tariffs, but the preferential margins; thus, the difference between the tariff rates faced by LDCs and those faced by their competitors. While the relative positioning of LDCs has improved over the past years, new trade agreements agreed among more developed economies, like the Transatlantic Trade and Investment Partnership (TTIP), could, in the future, lead to an erosion of preferences.

Kenya's situation as a developing country is different from the one of the three LDCs. On the Chinese market, Kenya faces most-favoured-nation (MFN) tariffs, putting the country in a disadvantaged position compared to other suppliers that have concluded preferential trade deals. In the EU market, Kenya enjoys preferential treatment under the Economic Partnership Agreement (EPA) that was signed in January 2015. Most other developed countries grant Generalized Scheme of Preferences (GSP) preferences to Kenya and the country additionally enjoys duty-free access of its textile products to the United States of America under the African Growth and Opportunity Act (AGOA). Like the three LDCs, Kenya could see its preferences eroding in light of new bilateral and regional agreements. Where the country faces tariffs, it could even be confronted with a tariff disadvantage in the future.

All four PIGA countries are also involved in a number of regional agreements. Ethiopia, Kenya and Zambia are Common Market for Eastern and Southern Africa (COMESA) members, but only Kenya and Zambia are also parties to the free trade agreement (FTA) that has eliminated customs tariffs and aims to abolish other quantitative restrictions and non-tariff barriers (NTBs) as well. The East African Community (EAC), of which Kenya is a part, goes one step further with the establishment of a common market for goods, labour and capital. Mozambique and Zambia, finally, are members of the South African Development Community (SADC), a free trade area encompassing 12 countries. To deal with problems stemming from overlapping membership, there are plans to unite COMESA, EAC and SADC members into a single continental free trade area (CFTA) by 2018. While a number of policies have aimed to reduce trade frictions, intraregional trade flows remain very small.

2.3. Existing ITC projects and national development plans

Priority products and sectors for possible PIGA intervention will be selected in close coordination with existing programmes in the four countries to further enhance effectiveness and efficiency.

ITC is already active in the region and has experience in South-South trade promotion: the Supporting Indian Trade and Investment for Africa (SITA) project aims to increase the value of business transactions between the Republic of India and selected East African countries (Ethiopia, Kenya, the Republic of Rwanda, Uganda and the United Republic of Tanzania), with the ultimate objective to create jobs and income opportunities for people in East Africa. Synergies will also be created with other ITC projects in Mozambique, Kenya, Zambia and Ethiopia, such as the Promoting East African Trade project funded by Finland (Zambia is a beneficiary), the NTF-III project in Kenya and the Ethical Fashion, Women and Trade and natural gums and resins projects in Ethiopia. Table 1 gives an overview of recent initiatives.

6

⁶ WTO (2014): Duty-Free and Quota-Free Market Access for Least Developed Countries.

⁷ Announcement by China's President Xi Jinping during an Asian-African Summit. See: www.ictsd.org/bridges-news/bridges-news/bridges-news/bridges-news/bridges-news/bridges-news/bridges-news/bridges-news/china-extends-97-percent-dfgf-treatment-for-ldc-imports.

⁸ UNCTAD (2015): Improving Market Access for the Least Developed Countries in the 2030 Agenda for Sustainable Development, Policy Brief No. 6, http://www.unctad.org/en/PublicationsLibrary/presspb2015d11_en.pdf.

Table 1: Overview of priority sectors in ITC projects

Sector/Country	Ethiopia	Kenya	Mozambique	Zambia
Apparel	1	1		
Avocado		2		
Chilli		3		
Coffee	4	4		
Cotton and textile	4	5.4	5	5
Honey				3
IT (services)		2.4		
Jewellery	1	1		
Leather		4		
Mango		3		
Natural gums and resins	6			
Pulses	4			
Spices	4		150.15	

Notes: Shaded cells indicate ITC activities in the country-sector. The respective projects are: ¹ Ethical Fashion. ² NTF III. ³ Promoting intraregional trade in East Africa. ⁴ SITA. ⁵ Trade promotion and value-addition for African cotton. ⁶ Business Development: Inclusive value chain development of the natural gum and resins in Ethiopia.

Existing national development plans often prioritize sectors for government support. If ITC plans interventions in one of these sectors, synergies could be leveraged. Table 2 gives an overview of the sectors selected in recent strategic documents.

Table 2: Overview of priority sectors in national development plans

Sector/Country	Ethiopia	Kenya	Mozambique	Zambia
	Growth and Transformation Plan 2010/11–2014/15	Industrial Transformation Programme 2015 ¹ Vision 2030 ²		Revised 6 th National Development Plan 2013–2016
Agro-processing		1.2		
Cement			ent	
Chemicals			cnm	
Construction materials		1	ор Абе	
Fisheries		1	strate	
Forestry			10 8	
Leather		1.2	errea	
Manufacturing		2	refe	
Meat		2	only	
Metal and engineering			No commonly referred to strategy document	
Mining			8	
Pharmaceuticals				

EXPORT POTENTIALS OF ETHIOPIA, KENYA, MOZAMBIQUE AND ZAMBIA

Sugar		
Tea	1	
Textile	1	

Note: Shaded cells indicate that the sector has been prioritized in the respective national development agenda of the country.

3. Methodology

The categorization of products with potential and for diversification will rely on ITC's export potential assessment methodology. This methodology has been developed to spot a country's products or sectors with export potential in existing or new markets, based on detailed trade and market access statistics. It is applied to identify, for each beneficiary country of the PIGA project, high potential export products and diversification opportunities in the world market, as well as in the EU, the Chinese and the East African regional market.

3.1. Data

All export potential calculations in this study are done at a fine level of product aggregation, based on the six-digit level of the Harmonized System (HS) classification. In a few cases where products have been subject to revision changes, we work with product groups that encompass several HS six-digit items. To improve the exposition of results, we aggregate computed potentials ex post for all non-agricultural items (results for agricultural products are presented at the finest level of detail). While we generally sum up results at the four-digit level, we present our findings for apparel at the two-digit level, as a finer disaggregation does not allow differentiating products in a meaningful way. These results are matched to HS section-based value chains to inform about the possibility of broader interventions at the sector level. Note that natural resources, health-damaging products and waste products are excluded from the analyses even though they can sometimes account for a large share of the PIGA countries' total exports. The sector is total exports.

The source of all the trade data used in export potential assessments is ITC's <u>Trade Map</u>. ¹² Various measures ensure that unreliable data reports do not distort results. First, the indicators are based on five-year averages (2010–2014). All products must be exported at least in the three most recent years and imported in all five years to ensure that only continuously supplied and demanded products are suggested as potential areas for PIGA interventions. Second, a mix of the direct (as reported by the country itself) and the mirror (as reported by the country's trade partners) flow is used to estimate "true" export and import values. Third, a thorough reliability check identifies and disposes of unreliable reporters whose reported trade flows are not used in the analyses. In cases where a country's reports systematically differ from those of its trade partners, only mirror statistics are used. ¹³

Tariff data is taken from ITC's <u>Market Access Map</u>. All other data comes from external data sources. For an overview, please refer to the annex.

3.2. Export Potential Indicator (EPI): Growing your current exports

The EPI identifies products in which the exporting country has already proven to be internationally competitive and that have good prospects of export success in a given target market. It is based on an assessment of supply, demand and market access conditions.

While all the calculations are done at the finest level - i.e. by exporting country, product and target market - results can eventually be aggregated to find export potentials of sectors or regions. This will also allow us to identify the sectors that offer the best opportunities globally to an exporting country or that offer the best opportunities in intraregional trade, like in East Africa.

Supply conditions are measured through a set of indicators, namely:

⁹ The Republic of Angola, the Republic of Botswana, the Republic of Burundi, the Democratic Republic of the Congo, the Republic of Djibouti, the State of Eritrea, Ethiopia, Kenya, the Kingdom of Lesotho, the Republic of Malawi, Mozambique, the Republic of Namibia, Rwanda, the Federal Republic of Somalia, the Republic of South Africa, the Republic of South Sudan and the Republic of North Sudan, the Kingdom of Swaziland, the United Republic of Tanzania, Uganda, Zambia and the Republic of Zimbabwe.

¹⁰ This obviously may indicate a large potential for apparel that is, in fact, driven by very few sub-products. However, since production techniques are similar, we believe this loss of detail can be justified for the sake of conciseness.

¹¹ For instance, tobacco is excluded from the analysis even though the product accounts for 7.6% of Mozambique's exports. Arms and ammunition are also excluded. Disregarded natural resources fall into chapters 25–28 and chapter 71 of the HS classification. Waste products belong to a wide range of sectors and are identified through the product description.

¹² Annual data in ITC's Trade Map comes from UN's Comtrade database.

¹³ Annex V gives an overview of the source of trade data used for each PIGA country.

- Revealed comparative advantage (RCA): In which products is the country competitive compared with other countries in the world?
- Dynamic comparative advantage: In which products has the country recently become competitive?

The dynamic RCA is corrected for re-exports and global tariff conditions that could distort a country's supply capacity as "revealed" by trade data. Re-exports, for instance, are included in trade statistics even though they do not indicate any production capacity. Dynamic RCAs are, therefore, adjusted to the extent to which imports exceed exports of the product. ¹⁴ In the same vein, globally favourable market access conditions stimulate exports, but do not necessarily point to high competitiveness. Corrected comparative advantages account for this.

Demand conditions are measured through:

- Demand share of a product: Which products are highly demanded by the market?
- Dynamic demand share: Which products have recently experienced a relative increase in demand?

The demand analysis is corrected for tariff conditions in the target market and demand sensitivity that could affect the market's demand for a product from a given exporter. For instance, even if a target market shows high and growing imports for a certain product, unfavourable tariff conditions (i.e. a high tariff applied to a PIGA exporter compared to the tariffs applied to its competitors) will lower the potential of that given exporter to sell the product in this specific target market. Likewise, if the product is sensitive to distance (e.g. because it is perishable) and the exporter is located far from the target market, bilateral demand potential will be downgraded even though demand and demand growth seemed promising.

Combining the dynamic and corrected supply and demand shares gives the potential share of a product in the exports from a country to a given target market. Total expected bilateral exports (reflecting common language, shared border, cultural ties or diasporas) are used to convert these shares into potential values. The comparison of potential with actual exports reveals how much more of a product could be exported given the current supply and demand conditions, and can help guide the activities of trade advisors.

Final export potential indicators

- **Potential export value:** The potential value at which a country can export its products to a certain target market given its *current* supply capacities, and the target market's demand and market access conditions. Note that an increase of production capacities, for example, as a result of foreign direct investment (FDI), will increase this potential export value.
- Unrealized potential: The gap between actual exports and current potential exports. Reasons for
 unrealized potentials include lack of information about or difficulties in meeting consumer
 preferences in the target market, lack of information about or difficulties in meeting market
 regulations, lack of business contacts or of knowledge about distribution channels, and mismatch
 of supplied and demanded varieties.

3.3. Product Diversification Indicator (PDI): Diversifying into new products

The PDI is particularly useful for countries with a limited range of exported products. Since these are often agricultural commodities or natural resources subject to price shocks, the identification of additional export products with good prospects of export success can help broaden the export base and be key to securing sustainable export revenues.

Supply conditions are approximated through:

Relatedness of products "in space": The so-called "product space" concept¹⁵ enables the
identification of products that are "feasible" to produce for export based on the intuitive idea that
products that are often jointly exported by countries require similar production capabilities and

10

¹⁴ Note that the export-import ratio can help downgrade the export potential of products that are deemed crucial for food security in a country. Ethiopia, for instance, has a small RCA in wheat, which would normally indicate that the country has some potential to export the product. Due to the fact that imports are more than 10 times higher than exports, the product gets strongly downgraded, minimizing the calculated export potential despite large and growing demand in many world regions.

¹⁵ Hidalgo, C., Klinger, B., Barabasi, A.L. and Hausmann, R. (2007), *The product space conditions the development of nations*, Science 317, 482–487.

resource endowments. By using information on export connections from all countries worldwide, an outcome-based measure of the country's ability to diversify into new products can be calculated. These new products are given a "proximity" score.

• Filters accounting for certain geographic conditions (e.g. availability of sea access or climatic zones) of the country that might be incompatible with producing the suggested items for diversification.

Filtered proximity scores (the "ease" to reach certain products) are combined with the same demand-side (size, growth and accessibility) indicators that are used in the EPI to create a unique ranking of diversification opportunities with good chances of export success in a given target market.

Final product diversification indicators

- Related diversification options: Listed products are "within reach" (closest 10%) given the country's *current* supply capacities (measured as the relatedness of new products to the country's current export basket and corrected using land endowment and sea access filters). The tables also show the target market's demand and market access conditions. Note that investment, for instance, through Greenfield FDI, can trigger new supply capacities unrelated to the country's current export basket.
- FDI-triggered diversification options: Instead of using the PIGA countries' capabilities as an indication of which products would be feasible diversification options, the potential investor's capabilities (measured through its RCAs) are combined with the target market's demand and market access conditions. This will indicate products for diversification that benefit from the export experience of the investor (China) and the tariff conditions the target markets (EU and East Africa) grant to the PIGA countries, as well as their sometimes more favourable geographical position to serve these markets.

3.4. Additional indicators

The export sectors with potential or for diversification may be very different in terms of ownership structure, company size or employment prospects (for women) – aspects crucial to the PIGA project. Additional indicators measure the:

- Share of exporting firms,
- SME prominence, 16
- Female labour participation,
- Employment growth,
- Share of foreign ownership.

The World Bank provides the data to calculate these indicators at the two-digit level of the International Standard Industrial Classification (ISIC) classification, which is much broader than the HS six-digit-based product groups used for the export potential assessment. Furthermore, the dataset covers manufacturing and services, but neither agriculture nor mining, which account for the biggest share of the PIGA countries' current export supply. Finally, the surveys date back to 2015 for Ethiopia, 2013 for Kenya and Zambia and 2007 for Mozambique. For all these reasons, reported figures should just be considered as a rough illustration of the situation. Where available, the information is complemented by data from national sources.

3.5. Qualitative information

ITC's export potential assessment is a data-based approach to classify promising products and sectors. It abstracts from intangible or unmeasurable factors that should be considered when selecting products and sectors for trade development programmes, such as existing national development plans or sector strategies that would allow leveraging synergies. Export potential assessments also do not account for the

¹⁶ SMEs are defined as companies employing less than 100 people full-time.

costs related to export promotion activities. These factors, however, may influence the "feasibility" of exporting (more of) certain products to a particular target market. Therefore, desk research and discussions with local stakeholders complement the quantitative assessment.

Two missions were organized between February and March 2016 to validate and expand on the initial findings, visiting all four countries and holding semi-structured interviews with relevant public and private sector organizations. The interviews were designed to help provide a more complete view about the preselected sectors, to discard any that would not qualify once more qualitative information was reviewed, and identify any additional products, sectors and value chains that might not have been captured, but were considered priority sectors for each of these countries.

Selected sectors were cross-checked against:

- Priorities set in existing development plans, projects and national export strategies,
- Production capacities and trends, including potentials to attract foreign investment,
- Industry structure, including the number and types of companies,
- Bottlenecks such as resource availability, infrastructure, market regulations and procedures.

Please refer to annex VI for a summary of the interviews conducted in each country. Table 3 gives an overview of the institutions interviewed.

Table 3: Overview of institutions met

Ethiopia	Kenya	Mozambique	Zambia
Ministry of Trade – export research and promotion	Kenya Investment Authority Kenya Priveta Sector	Centro Promocao Investimento (CPI) Centro do Promoção	 Zambia Development Agency – (1) Export development, and (2)
Ethiopian Investment Commission – (1)	Kenya Private Sector Alliance (KEPSA) African Cotton and	Centro de Promoção da Agricultura (CEPAGRI)	Business developmentMinistry of Commerce,
Leather and textile project, and (2) Agriculture section	Textiles Industries Federation (ACTIF)	Confederation of Trade Associations (CTA)	Trade and Industry Zambia Association of Manufacturers
Ethiopia Chamber of Commerce and Sector	Ministry of Industrialization and Enterprise	DFID Mozambique	Zambia Chamber of Commerce
Associations • Local entrepreneur	Enterprise Development – textile value chain	Instituto de Promoção de Exportação	Commerce
SITA national coordinator	Leather Development Council	Gabinete das Zonas Económicas de Desenvolvimento Acelerado (GAZEDA)	

4. Results

This section summarizes results from the quantitative export potential analysis and the qualitative interviews. For each country and sector, the major products with export potential and related diversification opportunities are highlighted. The section also shows interesting diversification opportunities unrelated to the country's current exports made feasible through Chinese investment. The tables present:

- 1. Exported products with potential: These are products with a total export potential to the world of at least US\$ 1 million. Along with the total export potential, the export potential and the degree of unused potential in each target market is shown.
- 2. Related products for export diversification: These are products belonging to sectors with export potential. They are not or only hardly exported so far (they account for less than 0.5% of all exports), but are "within reach" given the country's current capabilities.
- 3. New sectors with export potential (in the EU and regional market): These are products potentially attractive for Chinese investment, as they have high demand potential (good demand and market access conditions) in the EU and in the regional market.

The quantitative analyses are completed by information from desk research and stakeholder consultations as available. <u>Underlined</u> sectors or products have been emphasized during interviews.

4.1. Ethiopia's sectors with export potential

In line with Ethiopia's current export supply, agro-based sectors show by far the highest export potential augmenting to US\$ 3.5 billion. Markets for vegetable products can be found anywhere in the world. Live animals have the best opportunities in Arab and East African markets. While most current potentials relate to agricultural commodities that may be sensitive in terms of national food security and involve little domestic value addition, opportunities in agro-processing can be found linked to these sectors, for instance, along the oilseed value chain.

The export potentials for leather and textiles amount to US\$ 101 million and US\$ 44 million respectively, and lie mostly in non-regional markets. All other sectors' potentials are well below that, but could still offer some niche opportunities.

All sectors Excl. vegetable products 0.5 3.5 JS\$ billions **US**\$ billions 0.45 3 0.4 2.5 0.35 0.3 2 0.25 1.5 0.2 0.15 1 0.1 0.5 0.05 Leather and leather products 0 Leather and leather products 0 Fodmed Tals Unitellies Texiles and texile atioles Foundat Light Through Texiles and texile atioles wood and wood products Food Parking Pupaco mod and mod products ■ China ■ EU ■ East Africa ■ RoW ■ China ■ EU ■ East Africa ■ RoW

Figure 6: Ethiopia's high potential sectors

Note: The table lists products with a total export potential of more than US\$ 1 million.

4.1.1. Animal-based products

Ethiopia has a large livestock base with 57 million cattle, and 29 million goats and sheep, respectively. Accordingly, live animals and animal products are one of Ethiopia's traditional export sectors. Following the ban of raw hides and skins exports, the country has engaged in value-adding activities in the leather sector, which is perceived to have a high, albeit untapped, potential for exports.

Live animals and animal products

Ethiopia possesses significant export potential for live animals, notably to regional markets. Much of the existing potential, however, has been used up. Even though there is demand and, hence, potential to export live animals also to China and the EU, difficulties to comply with prevailing sanitary measures could make it unlikely that exporters will actually tap into these opportunities. Among the animal products, goat meat promises the highest potential export revenues. Almost all exports are currently destined to the United Arab Emirates and the Kingdom of Saudi Arabia. Interesting, even though yet unexplored markets can also be found in the EU (notably the French Republic), together offering a scope of US\$ 4.5 million in additional exports. China has only recently started importing goat meat and it is not clear yet how sustainable this demand is. Honey is also an interesting option for exports to the EU, confirmed by the interviewed experts on the ground. Especially the German market, where the current potential for beeswax is already fully used, looks promising for additional honey exports.

Table 4: Ethiopia's exported products with potential: Live animals and animal products

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Live bovine animals	146 600	21 973	100%	11 680	100%	57 367	0 3%
Goat meat fresh, chilled or frozen	109 631	-	-	4 506	100%	559	100%
Sheeps, live	107 889	-	-	1 225	100%	4 358	3 0 4%
Live animals nes	65 961	6 089	99%	6 803	99%	12 364	17%
Goats, live	64 163	-	-	6	100%	1 142	2 🕒 27%
Sheep carcasses and half carcasses, fresh or chilled	12 701	-	-	593	100%	185	100%
Honey, natural	3 631	207	94%	2 127	87%	81	O 13%
Beeswax, other insect waxes and spermaceti, refined or not, colo	2 748	94	100%	1 656	O 23%	103	100%
Lamb carcasses and half carcasses, fresh or chilled	1 117	-	-	492	99%	3	100%

Note: Graphs show sectors with a total export potential of more than US\$ 5 million.

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¹⁷ FAO statistics (2014), available at http://faostat3.fao.org.

Thanks to the abundance of livestock, plenty of diversification opportunities exist in the sector, which seem "easy" to reach given what the country is currently able to offer. Yet demand and market access conditions in the three key regions are not equally good. For instance, in the East African market – where many live animals are sold – Ethiopia faces on average tougher tariff conditions than its competitors. Milk powder is an exception; hence, the overall prospects of export success are high (rank 30 out of approx. 4,000 products considered for diversification). Since most Ethiopian products enter the European and Chinese markets duty-free, the country enjoys tariff advantages for many of its animal products. Milk powder and frozen sheep or bovine cuts seem particularly promising, as demand is also high and growing fast (in the Chinese market).

Table 5: Ethiopia's related products for export diversification: Live animals and animal products

	China		EU		East Africa		
Product	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	
Bovine edible offal, frozen nes	44 (33%)	11 pp	130 (9%)	0 pp	40 (7%)	6% (-0 pp)	
Bovine cuts boneless, frozen	480 (73%)	10 pp	2 003 (2%)	19 pp	215 (7%)	18% (-7 pp)	
Sheep cuts, boneless, fresh or chilled	0 (-46%)	15 pp	249 (2%)	27 pp	0 (-41%)	23% (-11 pp)	
Sheep cuts, bone in, frozen	499 (43%)	6 pp	618 (0%)	28 pp	12 (-16%)	35% (-1 pp)	
Sheep carcasses and half carcasses, frozen	30 (546%)	5 pp	4 (-6%)	24 pp	1 (-33%)	27% (-9 pp)	
Goats, live	0	5 pp	3 (1%)	0 pp	14 (-8%)	0% (0 pp)	
Milk and cream powder unsweetened exceeding 1.5% fat	1 916 (22%)	4 pp	923 (2%)	0 pp	322 (2%)	5% (10 pp)	
Sheep cuts, boneless, frozen	24 (26%)	8 pp	452 (-2%)	32 pp	3 (-3%)	36% (-2 pp)	
Bovine tongues, edible offal, frozen	0 (17%)	8 pp	14 (5%)	0 pp	1 (-2%)	3% (-0 pp)	
Lamb carcasses and half carcasses, frozen	18 (301%)	4 pp	36 (-5%)	21 pp	8 (3%)	39% (-38 pp)	
Sheep cuts, bone in, fresh or chilled	9 (92%)	14 pp	565 (3%)	26 pp	1 (-5%)	33% (-25 pp)	
Bovine cuts boneless, fresh or chilled	23 (18%)	12 pp	6 575 (6%)	13 pp	19 (-2%)	32% (-26 pp)	
Horse, ass, mule (hinny) meat, fresh, chilled or frozen	3 (-8%)	20 pp	352 (-3%)	2 pp	1	0% (0 pp)	
Edible products of animal origin nes	17 (-2%)	8 pp	32 (6%)	3 pp	1 (39%)	18% (-17 pp)	
Bovine livers, edible offal, frozen	0 (58%)	12 pp	24 (11%)	0 pp	20 (11%)	20% (-2 pp)	
Ossein and bones treated with acid, unworked, defatted or simply prepared	0 (88%)	0 pp	31 (7%)	0 pp	0 (47%)	3% (-0 pp)	

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Even though not prioritized in the GTP, the live animals sector was considered to have potential by local stakeholders met during the validation mission. Sheep and goat meat in particular were thought to offer possibilities to upscale production. Interviewees also emphasized specialty honey (organic) and honey-fermented drinks. The honey sector is composed of smallholders.

Challenges to realize additional exports in live animals and animal products: 18

- Inefficiencies in purchasing, poor animal handling and inadequate facilities at the abattoir and export level,
- Stiff competition from the Federative Republic of Brazil, India, the Islamic Republic of Pakistan, Australia and New Zealand,
- Animal health, feed and breed need to be improved to increase the productivity of meat, milk, honey and egg.

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¹⁸ USAID (2013): End Market Analysis of Ethiopian Livestock and Meat and GTP II (draft).

Leather and leather products

Since the late 1970s, the Ethiopian Government has banned the exports of raw hides and skins, which has successfully encouraged local value addition. Yet, even though Ethiopia's GTP identified leather as a national export priority, the growth target of achieving export revenues of US\$ 221 million by 2015 has been missed. Current potentials (excluding footwear) are at a similar level to actual trade and, in line with this, table 6 shows that the current scope to increase leather exports to the big markets in China and Europe is limited (low degrees of unused potentials). Some unused potential still exists for exporting bovine leather to China and goat leather to individual European markets. Further opportunities, especially for exports to Europe, exist even higher up the value chain, e.g. in leather articles, like gloves or leather footwear.

In line with quantitative findings, the interviewees perceived the leather sector as an attractive, yet untapped sector that does have the capacity to ramp up production. Shoe manufacturing in particular has seen foreign investment inflows, most of which are from China, but also from the United Kingdom of Great Britain and Northern Ireland, India, the Republic of Italy and the United States. Expectations that new industrial parks would further support investment and export development are high. A key challenge lies in the low efficiency that seems related to workforce qualification and commitment, old machinery and lack of market information.

Sector info

National export priority? Yes
Employment growth:* 3%
Female labour participation:* 43%
Prominence of SMEs:* 55%

Foreign direct investment:** 89 deals (12 JVs)

Share of exporting firms:* 22%

Table 6: Ethiopia's exported products with potential: Leather and leather products

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$ thousand)		X potential (US\$ thousand)		F	unused potential
Skins (in the dry state) and leather of sheep or lamb, without wool	59 873	17 318	O 8%	11 811	O 12%	46	98%
Hides and skins (in the dry state) and leather of goats or kids, with	30 843	8 736	0 0%	11 615	42 %	64	99%
Footwear, upper of leather	8 954	443	O 22%	4 557	● 74%	85 () 56%
Raw hides and skins (other than furskins) and leather, of bovine o	4 795	2 668	● 70%	712	O 27%	32 (5 2%
Articles of apparel and clothing access., of leather or composition I	3 967	51	① 54%	2 307	3 78%	47 (100%
Footwear, nes	2 352	63	O 11%	567	4 5%	247 () 16%
Raw hides and skins (other than furskins) and leather, of swine an	1 312	321	O 13%	340	9 39%	65 (78%

Note: The table lists products with a total export potential of more than US\$ 1 million.

^{*} World Bank enterprise survey (2015). Sample size = 22 firms of ISIC sector "Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear".

^{**} Ethiopian Investment Commission

Challenges to realize additional exports in leather and leather products: 19

- Low efficiency due to lacking qualification and commitment, machinery and market information,
- Shortage of hides and skins, as tanneries prefer to sell semi-processed leather to export markets rather than to local shoemakers.

4.1.2. Vegetable-based products

Besides animal-based products, Ethiopia's agricultural sector comprises a wide range of vegetable-related products, notably coffee, floriculture, oilseeds, pulses and spices. These offer opportunities for value addition, for instance, into vegetable oils. Agro-processing has been identified as a priority in Ethiopia's GTP.

Fruits and vegetables

The largest part of Ethiopia's fruit and vegetable exports are "not further specified" vegetables; hence, it is unclear exactly which product is traded. Being landlocked, Ethiopia sells its fresh fruits and vegetables almost exclusively to neighbouring Somalia and Djibouti, from where they are shipped further to end markets. Only prepared or preserved fruits are directly exported to the United Arab Emirates. Whether the potentials in the EU market can be realized will largely depend on the availability of adequate storage facilities and transport equipment, as well as on Ethiopia's capacity to comply with the EU's non-tariff measures. An alternative strategy would be to strengthen processing capacities to facilitate deliveries to distant destinations. Dried fruits, like dates, apricots or grapes,

Sector info*

National export priority? Yes
Employment growth: 2%
Female labour participation: 27%
Prominence of SMEs: 67%
Foreign ownership share: 31%

Share of exporting firms:

* World Bank enterprise survey (2015). Sample size = 88 firms of ISIC sector "Manufacture of food products and beverages".

6%

and prepared pineapples emerge as feasible diversification opportunities that promise export success in world markets. Particularly for prepared pineapples and pineapple juice, Ethiopia could benefit from a very clear tariff advantage over other suppliers to the EU. FAO data indicates that Ethiopia produces fresh pineapples in growing quantities.

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¹⁹ ACET (2014) and stakeholder interviews.

Table 7: Ethiopia's exported products with potential: Fruits and vegetables

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
	(Go tilousulu)	thousand)	potential	thousand)	potential	thousand)	potential
Vegetables nes, fresh or chilled	615 932	467	0%	79 171	94%	450 694	O 20%
Potatoes, fresh or chilled nes	13 976	-	-	4 185	99%	3 954	O 4%
Tomatoes, fresh or chilled	4 157	-	·	1 630	100%	187	O 4%
Cranberries and other fruits, nuts and edible parts of plants, prepa	3 558	129	100%	2 011	92%	77	O 26%
Potatoes seed, fresh or chilled	2 782	-	-	241	100%	332	48 %
Bananas and plantains, fresh or dried	2 334	98	100%	1 814	100%	11	O 25%
Onions and shallots, fresh or chilled	1 866	(100%	445	97%	80	39 %
Cabbage lettuce (head lettuce), fresh or chilled	1 419	-	-	606	100%	118	O 5%
Oranges, fresh or dried	1 406	64	• 100%	636	100%	99	O 29%

Table 8: Ethiopia's related products for export diversification: Fruits and vegetables

	China		EU		East Afr	ica
Product	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Dates, fresh or dried	4 (24%)	15 pp	278 (6%)	0% (3 pp)	8 (3%)	8% (4 pp)
Melons, fresh, other than watermelons	2 (-54%)	0 pp	909 (4%)	0% (2 pp)	1 (2%)	19% (-17 pp)
Pineapples nes, o/w prep. or preserved, sugared, sweetened, spirited or not	12 (20%)	15 pp	449 (2%)	0% (12 pp)	12 (-2%)	44% (-18 pp)
Apricots, dried	1 (15%)	25 pp	190 (3%)	0% (0 pp)	1 (-5%)	10% (1 pp)
Guavas, mangoes and mangosteens, fresh or dried	139 (13%)	0 pp	672 (11%)	0% (0 pp)	10 (-4%)	11% (21 pp)
Manioc (cassava) starch	741 (19%)	0 pp	36 (5%)	0% (9 pp)	10 (-2%)	5% (-1 pp)
Manioc (cassava), fresh or dried, whether or not sliced or pelleted	1 589 (12%)	0 pp	34 (3%)	0% (1 pp)	1 (-1%)	15% (-12 pp)
Grapes, dried	32 (10%)	10 pp	946 (2%)	0% (1 pp)	3 (-8%)	17% (5 pp)
Pineapples, fresh or dried	22 (40%)	1 pp	1 099 (1%)	0% (0 pp)	1 (7%)	19% (-14 pp)
Grapes, fresh	290 (31%)	4 pp	3 249 (4%)	0% (1 pp)	24 (6%)	12% (-4 pp)
Cherries, fresh	265 (50%)	2 pp	438 (4%)	0% (1 pp)	1 (3%)	12% (-2 pp)
Arrowroot, salep (yams), etc.	3 (14%)	1 pp	58 (4%)	0% (2 pp)	1 (4%)	3% (-1 pp)
Fruits nes, fresh	758 (23%)	0 pp	781 (9%)	0% (1 pp)	6 (11%)	10% (-2 pp)
Pineapple juice, unfermented	3 (29%)	10 pp	436 (-5%)	0% (7 pp)	6 (3%)	27% (-7 pp)
Prunes, dried	7 (-1%)	22 pp	232 (6%)	0% (4 pp)	1 (14%)	19% (-2 pp)
Asparagus, fresh or chilled	0 (-42%)	5 pp	383 (6%)	0% (1 pp)	1 (-2%)	16% (-2 pp)
Orange juice, unfermented and not spirited, whether or not sugared, sweet, frozen	115 (5%)	7 pp	767 (1%)	0% (13 pp)	2 (-17%)	24% (-12 pp)
Fresh or dried lemons, limes, and other citrus fruit	15 (37%)	20 pp	1 301 (6%)	0% (4 pp)	6 (9%)	23% (-5 pp)
Aubergines (eggplants), fresh or chilled	0 (0%)	13 pp	272 (3%)	0% (0 pp)	0 (9%)	3% (-0 pp)
Figs, fresh or dried	3 (61%)	30 pp	228 (6%)	0% (0 pp)	1 (2%)	16% (0 pp)

EXPORT POTENTIALS OF ETHIOPIA, KENYA, MOZAMBIQUE AND ZAMBIA

Peaches, including nectarines, fresh	1 (-15%)	10 pp	1 354 (-0%)	0% (0 pp)	4 (-3%)	13% (-6 pp)
Cranberries, bilberries and other fruits of the genus vaccinium, fresh	14 (69%)	1 pp	482 (17%)	0% (1 pp)	0 (4%)	3% (1 pp)
Grape wines nes, incl. fort and grape must, unfermented by add. alc., in container > 21	113 (-8%)	11 pp	2 525 (6%)	3% (0 pp)	62 (6%)	26% (-3 pp)
Brussels sprouts, fresh or chilled	0	13 pp	80 (4%)	0% (0 pp)	0 (-9%)	8% (-1 pp)
Coconuts, not desiccated	62 (30%)	0 pp	43 (13%)	0% (0 pp)	1 (28%)	20% (-3 pp)
Watermelons, fresh	27 (3%)	0 pp	614 (3%)	0% (0 pp)	1 (8%)	16% (-16 pp)
Sweet potatoes, fresh or dried, whether or not sliced or pelleted	0 (7%)	3 pp	119 (18%)	0% (2 pp)	1 (11%)	7% (-0 pp)
Grapefruit juice, unfermented	4 (37%)	15 pp	210 (0%)	0% (4 pp)	3 (1%)	24% (-19 pp)
Peel of citrus fruit or melons (watermelons) fresh, frz, drid/prov. preserved	3 (23%)	23 pp	49 (14%)	0% (0 pp)	0 (4%)	7% (1 pp)
Coconuts, desiccated	8 (36%)	0 pp	234 (16%)	0% (0 pp)	12 (18%)	6% (3 pp)
Palm hearts nes, o/w prep. or preserved, whether or not sugared, sweet or spirited	0 (78%)	2 pp	52 (1%)	0% (0 pp)	0 (-5%)	27% (-6 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Nuts, oilseeds and edible oils

Ethiopia's export potential for sesame seeds is huge. More than half of all exports are destined to China and there is still growth potential in this market. Exports to the EU mostly go to Greece, but potential also exists in the Netherlands and in Germany. In East Africa, the Kenyan market offers the best opportunities. Other oilseeds have comparably lower, yet so far unexploited potentials. Soya beans, for instance, have not yet been sold to China even though the market for this product is enormous.

Thanks to the extensive production of nuts and oilseeds, Ethiopia is very well-positioned to diversify into edible oils. Different oils rank high among the products for diversification, some of which – groundnut and sunflower seed oil – are already produced in the country, but not yet exported. Palm oil and virgin olive oil also have good chances of export success, particularly in European markets. Despite this potential for exports, the even local demand is currently to a large part still met by imports. A joint report by FAO, UNIDO and ILO lists "low production and poor quality of oilseeds, inadequate facilities (storage, transportation, post-harvest handling and packaging), outdated edible oil processing technology and weak business development service providers" as key challenges that need to be overcome in order to make the sector competitive.

Sesame seeds in particular were considered to have high potential during stakeholder consultations. According to the interviewees, sesame seeds are mainly produced by small, locally owned firms. The strong dependence on the Chinese market was perceived as problematic, as it has exposed exporters to detrimental price disputes in the past.

²⁰ According to FAO, production of groundnut oil (1,350 tons in 2013) has declined over the past five years, whereas production of sunflower seed oil (1,270 tons in 2013) has increased.

²¹ www.mdgfund.org/sites/default/files/PS_%20STUDY_%20Ethiopia_%20Edible%20Oil%20Value%20Chain.pdf.

Table 9: Ethiopia's exported products with potential: Nuts, oilseeds and edible oils

	Total X potential	China		EU		East Africa	
Product		X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Sesamum seeds, whether or not broken	911 834	447 653	9 38%	90 610	87%	10 673	● 69%
Soya beans, whether or not broken	22 925	17 147	100%	3 050	100%	22	O 2%
Other oilseeds	20 918	906	O 0%	11 354	83%	459	97%
Oil-cake and other solid residues, resulting from the extraction of r	3 610	1 097	O 0%	524	100%	_	_
Groundnuts, not roasted	3 358	113	O 0%	2 122	100%	271	93%
Linseed, whether or not broken	1 977	695	O 0%	1 151	● 63%	2	100%

Table 10: Ethiopia's related products for export diversification: Nuts, oilseeds and edible oils

	China		EU		East Afr	ıca
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Cashew nuts, without shell, fresh or dried	157 (5%)	0% (0 pp)	873 (10%)	0 pp	16 (6%)	1% (-0 pp)
Groundnut oil, crude	101 (10%)	10% (0 pp)	121 (-1%)	2 pp	0 (29%)	6% (-4 pp)
Cashew nuts, in shell, fresh or dried	3 (50%)	0% (2 pp)	12 (-14%)	0 pp	1 (-43%)	6% (-0 pp)
Brazil nuts, without shell, fresh or dried	0 (31%)	0% (10 pp)	124 (12%)	0 pp	2 (1%)	0% (-0 pp)
Coconut (copra) oil and its fractions refined, but not chemically modified	103 (21%)	0% (0 pp)	322 (6%)	1 pp	9 (55%)	5% (-1 pp)
Cottonseeds	64 (27%)	0% (7 pp)	76 (1%)	0 pp	13 (-6%)	8% (-6 pp)
Coconut (copra) oil, crude	112 (-27%)	0% (0 pp)	791 (1%)	2 pp	3 (5%)	0% (0 pp)
Walnuts, fresh or dried, shelled or peeled	23 (15%)	0% (20 pp)	623 (14%)	2 pp	1 (8%)	16% (0 pp)
Castor oil and its fractions, whether or not refined, but not chemically modified	285 (1%)	0% (10 pp)	331 (-1%)	1 pp	5 (3%)	9% (0 pp)
Palm oil and its fractions, refined, but not chemically modified	4 913 (-2%)	7% (0 pp)	3 021 (11%)	4 pp	1 307 (13%)	11% (1 pp)
Nuts nes	100 (33%)	0% (16 pp)	558 (3%)	0 pp	13 (5%)	7% (-3 pp)
Sunflower seed or safflower oil, crude	242 (28%)	9% (0 pp)	2 052 (5%)	1 pp	218 (8%)	7% (7 pp)
Palm oil, crude	68 (-57%)	9% (0 pp)	4 302 (2%)	1 pp	344 (11%)	0% (0 pp)
Almonds, fresh or dried, shelled or peeled	43 (8%)	0% (10 pp)	1 935 (17%)	1 pp	14 (22%)	3% (1 pp)
Soya bean oil, crude, whether or not degummed	1 409 (-6%)	9% (0 pp)	1 009 (-8%)	1 pp	128 (-6%)	6% (-3 pp)
Sunflower seed oilcake and other solid residues, whether or not ground or pellet	0 (6%)	0% (5 pp)	1 063 (19%)	0 pp	28 (7%)	6% (-1 pp)
Palm nut and kernel oilcake and other solid residues, whether or not ground or pellet	58 (19%)	0% (0 pp)	485 (11%)	0 pp	5 (5%)	7% (0 pp)
Palm kernel or babassu oil, crude	308 (-25%)	0% (0 pp)	529 (3%)	4 pp	6 (-2%)	0% (-0 pp)
Pistachios	98 (-17%)	0% (5 pp)	932 (2%)	1 pp	1 (20%)	3% (0 pp)
Almonds in shell, fresh or dried	18 (6%)	0% (10 pp)	52 (15%)	1 pp	1 (19%)	2% (0 pp)
Olives, prepared or preserved, other than by vinegar or acetic acid, not frozen	2 (15%)	0% (10 pp)	731 (4%)	0 pp	10 (4%)	32% (-3 pp)
Soya bean oil and its fractions, refined, but not chemically modified	13 (-11%)	9% (0 pp)	418 (-6%)	1 pp	391 (-7%)	13% (-8 pp)
Walnuts in shell, fresh or dried	58 (1%)	0% (25 pp)	286 (11%)	2 pp	0 (30%)	28% (2 pp)
Coconut and copra oilcake and other solid residues, whether or not ground or pellet	19 (1%)	0% (0 pp)	10 (2%)	0 pp	0 (50%)	8% (-3 pp)

Vegetable waxes, excl. triglycerides, whether or not refined or coloured	21 (13%)	0% (12 pp)	73 (9%)	0 pp	3 (3%)	5% (1 pp)
Hazelnuts or filberts in shell, fresh or dried	3 (-27%)	0% (24 pp)	43 (16%)	0 pp	0 (19%)	18% (0 pp)
Sesame oil and its fractions, whether or not refined, but not chemically modified	7 (14%)	0% (11 pp)	46 (12%)	2 pp	1 (23%)	10% (-3 pp)
Copra	0 (-25%)	0% (3 pp)	3 (-35%)	0 pp	1 (5%)	2% (0 pp)
Palm kernel and babassu oil and their fractions, refined, but not chemically modified	222 (73%)	0% (0 pp)	271 (10%)	6 pp	42 (-1%)	1% (-0 pp)
Olive oil, virgin	133 (11%)	0% (10 pp)	2 930 (5%)	3 pp	26 (5%)	10% (-4 pp)
Olives, provisionally preserved, but not suitable for immediate consumption	0 (10%)	0% (13 pp)	41 (6%)	0 pp	1 (-15%)	23% (-16 pp)
Olive oil and its fractions, refined, but not chemically modified	12 (9%)	0% (10 pp)	451 (6%)	2 pp	21 (11%)	11% (-2 pp)
Cottonseed and its fractions, refined, but not chemically modified	0 (-30%)	10% (0 pp)	7 (-17%)	0 pp	19 (9%)	13% (-8 pp)
Cottonseed oilcake and other solid residues, whether or not ground or pellet	3 (-6%)	0% (5 pp)	6 (16%)	0 pp	35 (9%)	5% (-4 pp)
Groundnut oilcake and other solid residues, whether or not ground or pellet	10 (-8%)	0% (2 pp)	16 (-12%)	0 pp	0 (-16%)	6% (-3 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in edible oils: 22

- Low production and poor quality of oilseeds,
- Inadequate facilities (storage, transportation, post-harvest handling and packaging),
- Outdated edible oil processing technology,
- Weak business development service providers.

Pulses

Ethiopia exports its pulses to markets around the world. While broad beans are mostly sold to the Republic of the Sudan, ²³ kidney bean exports go to markets in Asia (Pakistan, the Republic of Yemen and India), Latin America (the Republic of Nicaragua) and Eastern Europe (the Russian Federation). The potential to export kidney beans to EU markets stands at US\$ 48 million. Italy and the United Kingdom are the largest EU importers of this product, but unrealized potential also exists in the Netherlands and in France, where current Ethiopian exports are low. In addition, Ethiopia has potential to export chickpeas and dried pigeon peas, and other leguminous vegetables. While the main markets for these products are found in Pakistan and India, pigeon peas and other leguminous vegetables are also in high and growing demand in China.

Stakeholder consultations identified market knowledge and entry as the major challenge to further export development. Exporters also seem to have difficulties in complying with phytosanitary standards in their main markets.

Challenges to realize additional exports in pulses:²⁴

• Market knowledge and market entry (compliance with phytosanitary standards).

²² FAO, UNIDO and ILO: www.mdgfund.org/sites/default/files/PS_%20STUDY_%20Ethiopia_%20Edible%20Oil%20Value%20Chain.pdf.

²³ The data used in this study refers to the former territory, including what has become the Republic of South Sudan in 2011.

²⁴ Stakeholder interviews.

Table 11: Ethiopia's exported products with potential: Pulses

	Total X potential	China		EU		East Afr	ica
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Kidney beans and white pea beans, dried, shelled, skinned, split o	133 728	343	0%	48 076) 54%	17 183	O 28%
Broad beans and horse beans dried, shelled, skinned, split or not	71 512	-	_	545	96%	41 942	38 %
Chickpeas, dried, shelled, whether or not skinned or split	44 945	10	100%	2 757	88%	3 939	O 3%
Dried pigeon peas and other leguminous vegetables, shelled	16 055	1 400	100%	261	● 75%	1 080	O 17%
Beans, shelled or unshelled, fresh or chilled	4 837	_	_	4 020	1 41%	94	48 %
Urd, mung, black or green gram beans, dried, shelled, skinned o	4 054	181	100%	418	89%	352	O 21%
Lentils dried, shelled, whether or not skinned or split	2 904	2	100%	334	96%	877	0 0%
Dried bambara beans, cow peas and other beans, shelled	1 856	3	0%	324	• 40%	465	→ 79%

Spices

The export potential of spices is low compared to other vegetable-related sectors. Yet Ethiopia has a wide-ranging offer, and the EU market promises significant untapped opportunities. Ginger, for instance, is currently exported to Yemen, Pakistan, Saudi Arabia and a number of East African markets, but hardly to Europe despite strong and fast-growing demand, for example, in the Kingdom of the Netherlands, the Federal Republic of Germany and the United Kingdom. Pepper has an unrealized potential of more than US\$ 1.5 million each in the German and Dutch market. The offer may be complemented by other spices already exported (cumin, coriander and curcuma) or not yet exported, but indicated as feasible (cloves, nutmeg, mace, vanilla, cardamom²⁵ and saffron). While demand for these other spices is lower, Ethiopia may still benefit from its wide product range once business contacts to big wholesalers and retailers have been established.

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²⁵ According to FAO data, Ethiopia produces cardamom in small, but fast-growing quantities (155 tons in 2013).

Table 12: Ethiopia's exported products with potential: Spices

	Total X potential	China		EU		East Afr	ica
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Ginger	23 080	20	O 27%	7 567	99%	6 313	1%
Pepper of the genus Piper, except cubeb pepper, neither crushe	10 032	359	100%	3 725	99%	913	10%
Spices nes	3 424	86	100%	487	82%	909	O 25%
Seeds of cumin	3 031	9	100%	389	100%	144	36%
Seeds of coriander	2 729	17	100%	282	100%	151	① 51%
Turmeric (curcuma)	2 681	17	100%	639	99%	114	82%
Pepper of the genus Piper, except cubeb pepper, crushed or gro	2 414	63	100%	1 033	91%	280	0 4%

Table 13: Ethiopia's related products for export diversification: Spices

	China		EU		East Africa				
Product	Market imports (US\$ million) and	Tariff	Market imports (US\$ million) and	Tariff	Market imports (US\$ million) and	Applied tariff and tariff			
	growth	adv.*	growth	adv.*	growth	adv.			
Cloves	1 (49%)	0 pp	35 (24%)	1 pp	3 (27%)	1% (0 pp)			
Nutmeg	0 (28%)	0 pp	108 (7%)	0 pp	4 (-3%)	1% (0 pp)			
Mace	0 (8%)	5 pp	30 (-4%)	0 pp	0 (3%)	1% (2 pp)			
Vanilla	0 (18%)	2 pp	90 (24%)	0 pp	0 (10%)	1% (-0 pp)			
Cardamoms	0 (-11%)	0 pp	33 (-9%)	0 pp	2 (5%)	0% (11 pp)			
Saffron	3 (83%)	2 pp	119 (-8%)	3 pp	1 (-8%)	2% (-0 pp)			

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Coffee and tea

Ethiopia is the fifth-biggest coffee exporter in the world, selling to markets on all continents. Around one-quarter of total exports go to Germany, followed by Saudi Arabia, the United States and Japan. With the exception of the Kingdom of Belgium, where an unrealized potential worth almost US\$ 100 million remains untapped, actual exports are close to the levels of their current potentials in European markets. Opportunities outside Europe can be found in East Africa (Sudan) and China, where coffee demand has clearly been on the rise in recent years.

Experts from the Ministry of Trade see market entry as an important challenge for the coffee sector, which is mainly composed of smallholders. Opportunities for product diversification exist for roasted or decaffeinated varieties that are less exposed to fluctuating prices, they say. Trade figures, however, are not very promising: roasted coffee exports are still very low and Ethiopia's comparative advantage in decaffeinated coffee has decreased over the past five years. Consequently, current export potentials are limited, even though Ethiopia could benefit from its presence in the US market – the biggest market for decaffeinated coffee.

Table 14: Ethiopia's exported products with potential: Coffee and tea

	Total V material	China		EU		East Afr	ica
Product	Total X potential (US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Coffee, not roasted, not decaffeinated	925 490	7 156	● 71%	566 199	O 29%	88 506	69%
Black tea (fermented) and partly fermented tea in packages > 3 kg	2 158	41	100%	269	92%	448	92%

Challenges to realize additional exports in coffee:²⁶

- Market entry,
- Strengthen production capacities in value-added varieties, like roasted or decaffeinated coffee.

Floriculture

Ethiopia has a big and flourishing flower industry that consists of approximately 90% cut roses. Ethiopia started exporting roses in the mid-2000s and other flowers in 2010. Exports are predominantly directed to Europe, where the existing potential for cut flowers is almost used up. Some potential for cuttings and slips remains in the Dutch market. The major challenge, also expressed during stakeholder interviews, is market diversification. So far, hardly explored, but attractive markets comprise the United States and the Russian Federation. Applied tariffs are 0%; hence, Ethiopian cut flower exporters enjoy a tariff advantage over their competitors in these markets. The Russian market, for instance, is already served by Kenya, despite the comparably high duty of 27%. This market also seems attractive in terms of its geographic positioning, as transport logistics requirements should be similar to those for exports to the EU.

According to the Ethiopian Investment Commission, the cut flower industry comprises large firms such as Sher Ethiopia PLC with more than 10, 000 employees, and mid-sized companies of around 200–300 employees.

Table 15: Ethiopia's exported products with potential: Floriculture

	Tatal V material	China		EU		East Africa	
Product	(US\$ tilousaliu)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Cut flowers and flower buds for bouquets, fresh	199 132	784	99%	137 013	O 14%	25	28%
Cuttings and slips, unrooted	56 572	893	94%	49 618	o 58%	1 95	i0 ● 89%

Note: The table lists products with a total export potential of more than US\$ 1 million.

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²⁶ Stakeholder interviews.

Table 16: Ethiopia's related products for export diversification: Floriculture

	China		EU		East Africa		
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and	
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.	
Cut flowers and flower buds for bouquets or ornamental purposes, excl. fresh	3 (13%)	22 pp	336 (6%)	0 pp	3 (4%)	24% (-5 pp)	
roses, grafted or not	0 (10%)	7 pp	115 (4%)	0 pp	2 (-26%)	1% (-0 pp)	
Bulbs, tubers, corms, etc. in growth or in flower, and chicory plants and roots	0 (20%)	6 pp	443 (11%)	1 pp	1 (1%)	0% (-0 pp)	

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Other vegetable-based products

A number of other vegetable-based products with export potential exist, among them natural gums or medicinal plants that could feed as inputs into Ethiopia's pharmaceutical industry, another priority area under the GTP. Only recently, the pharmaceutical sector has received foreign investment from North Africa and India. According to the Ethiopian Investment Commission, only one (Indian) investment is already operational.

Table 17: Ethiopia's exported products with potential: Other vegetable-based products

	Total X potential	China		EU		East Af	rica
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Natural gums, resins, gum-resins and balsam, except arabic gum	9 447	667	0 0%	2 652	63%	26	7 🍑 77%
Grain sorghum	3 087	2 142	99%	93	86 %	420	38%
Other medicinal plants	2 448	366	100%	911	3 1%	4.	4 ● 91%
Hop cones, not ground, powdered or pelleted	1 570	-	_	326	100%	1 15	5 🔾 17%
Communion wafers, empty cachets for pharm. use and sim. prod	1 941	63	100%	639	85%	42	2 ● 92%
Liqueurs and cordials	1 385	44	100%	350	100%	14!	5 🛈 47%

Note: The table lists products with a total export potential of more than US\$ 1 million.

4.1.3. Cotton and textiles

Ethiopia's textile industry is based on domestic and imported cotton from Sudan and the Arab Republic of Egypt. China is Ethiopia's most important market for cotton yarn, where demand for raw cotton is huge as well. Ethiopia, however, might be better off fully exploiting the remaining potential for yarn, which gives room for additional exports worth US\$ 6.3 million. Apparel is mainly exported to the EU. Remaining potentials are highest for T-shirt exports to the Netherlands, France, Belgium or Italy. Manifold diversification options exist. Woven cotton fabrics and carpets are in high demand in the EU, where Ethiopia enjoys a small tariff advantage over its competitors. Apart from cotton, wool is the most demanded diversification option in China.

Ethiopia's GTP has identified the labour-intensive textile sector as a national priority. The GTP foresees an expansion of production capacity by 90%, leading to another 40.000 new jobs. Women would benefit from this, as they are well-presented in the sector

(see box).

Local stakeholders confirm the existence of silk- and wool-based production. Synthetic fabrics, they say, play a minor role. Interviewees point out the following bottlenecks to be overcome towards greater competitiveness: (i) Low productivity due to lacking or old machinery, skills and discipline, (ii) Low wages and high labour turnover, (iii) An inadequate energy distribution system, and (iii) The lack of price information. They perceive natural cotton and textile products as new market trends of which Ethiopia could take advantage. While the large foreign investment that has taken place in the past (see box) is seen as an opportunity, stronger skill transfer must be ensured for future deals.

Challenges to realize additional exports in cotton and textiles: 27

- Foreign investment to boost productivity (ensure skill transfer),
- High labour turnover,
- Inadequate energy distribution system,
- Lack of price information.

Sector info

National export priority? Yes

Employment growth:* -2% (4%)

Female labour participation:* 49% (78%)

Prominence of SMEs:* 38% (71%)

Foreign direct investment:** 218 deals (44 JVs)

Share of exporting firms:* 0% (16%)

Table 18: Ethiopia's exported products with potential: Cotton and textiles

Product	(US\$ illousaliu)	China		EU		East Africa	
		X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Articles of apparel, accessories, knit or crochet	21 402	318	98%	12 400	o 57%	903	41%
Cotton yarn (not sewing thread) 85% or more cotton, not retail	17 047	9 925	4 64%	1 965	87%	44	95%
Other made textile articles, sets, worn clothing, etc.	2 247	26	99%	977	● 60%	108	95%
Articles of apparel, accessories, not knit or crochet	1 485	35	9 5%	603	1 49%	69	91%

Note: The table lists products with a total export potential of more than US\$ 1 million.

^{*} World Bank enterprise survey (2015). Sample size = 13 (35) firms of ISIC sector "Manufacture of textiles" ("Manufacture of wearing apparel; dressing and dyeing of fur").

^{**} Ethiopian Investment Commission.

²⁷ Stakeholder interviews.

Table 19: Ethiopia's related products for export diversification: Cotton and textiles

	China	EU		East Africa		
Product	Market imports (US\$	Applied tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	and tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.
Cotton, not carded or combed	7 843 (-3%)	20% (0 pp)	485 (0%)	0 pp	96 (2%)	7% (-6 pp)
Jute and other textile bast fibres (not flax, true hemp or ramie), raw, pr.	53 (-26%)	0% (0 pp)	13 (9%)	0 pp	11 (6%)	1% (21 pp)
Yarn of jute or of other textile bast fibres of hd no. 53.03	50 (42%)	0% (0 pp)	46 (-14%)	0 pp	4 (-16%)	7% (2 pp)
Coconut, abaca, ramie and other vegetable fibres, raw, processed, not sp.	198 (12%)	0% (3 pp)	88 (9%)	0 pp	4 (7%)	0% (0 pp)
Carpets and other textile floor covering, woven, not tufted or flocked	47 (21%)	0% (10 pp)	1 377 (2%)	1 pp	43 (8%)	18% (2 pp)
Twine, cordge and cable, with rubber or plastic	53 (4%)	0% (4 pp)	618 (6%)	3 pp	57 (6%)	5% (-4 pp)
Wool, not carded or combed	2 496 (4%)	38% (0 pp)	839 (2%)	0 pp	10 (14%)	0% (-0 pp)
Fine or coarse animal hair, not carded or combed	88 (10%)	0% (9 pp)	259 (-0%)	0 pp	6 (-0%)	0% (0 pp)
Yarn of other vegetable textile fibres; paper yarn	3 (0%)	0% (6 pp)	25 (1%)	1 pp	1 (2%)	3% (0 pp)
Woven fab. of cotton, less than 85%, mixed with manmade fibre, weight >200	148 (3%)	0% (4 pp)	553 (5%)	2 pp	30 (12%)	14% (-3 pp)
Carpets and other textile floor covering, knotted	14 (18%)	0% (10 pp)	523 (-5%)	3 pp	22 (-2%)	7% (0 pp)
Woven fabrics of jute or of other textile bast fibres of hd no. 53.03	2 (4%)	0% (3 pp)	50 (-3%)	3 pp	11 (-16%)	10% (1 pp)
Woven cotton fabrics, 85% or more cotton, weight more than 200 g/m ²	443 (-0%)	0% (0 pp)	1 451 (1%)	1 pp	103 (0%)	19% (-12 pp)
Wool and fine or coarse animal hair, carded or combed	122 (2%)	0% (4 pp)	1 210 (4%)	1 pp	4 (-12%)	0% (-0 pp)
Yarn of synth. staple fibre, not for retail sale	152 (-3%)	0% (3 pp)	1 308 (-0%)	1 pp	84 (8%)	11% (1 pp)
Woven cotton fabrics, 85% or more cotton, weight less than 200 g/m ²	331 (-1%)	0% (3 pp)	2 796 (-1%)	4 pp	381 (9%)	15% (8 pp)
Woven fab. of syn. staple fibre (>85% of such fibre), mixed with cotton (wt)	69 (-3%)	0% (8 pp)	477 (2%)	3 pp	65 (2%)	17% (2 pp)
Cotton yarn (not sewing thread) for retail sale	7 (-32%)	0% (3 pp)	107 (2%)	0 pp	7 (-10%)	14% (-10 pp)
Cotton yarn (not sewing thread) less than 85% cotton, not for retail	206 (13%)	0% (2 pp)	165 (4%)	1 pp	10 (2%)	12% (-0 pp)
Woven fab of syn. staple fibre (<85% of such fibre), mixed with cotton (wt)	65 (-8%)	0% (9 pp)	418 (-2%)	1 pp	137 (5%)	20% (5 pp)
Woven fabrics of artificial staple fibres	73 (-8%)	0% (12 pp)	647 (6%)	6 pp	71 (17%)	13% (10 pp)
Woven fabrics of cotton, nes	46 (-4%)	0% (12 pp)	248 (-5%)	5 pp	23 (5%)	14% (11 pp)
Woven fabrics of synth. filam. yarn (incl. hd no. 54.04)	1 758 (-2%)	0% (10 pp)	4 018 (5%)	2 pp	518 (6%)	16% (2 pp)
Terry towelling	7 (-2%)	0% (12 pp)	56 (-1%)	1 pp	4 (-4%)	26% (-12 pp)
Silk yarn (other than yarn spun from silk waste)	3 (-1%)	0% (5 pp)	161 (10%)	1 pp	0 (23%)	0% (-0 pp)
Yarn of artif. staple fibre, not for retail sale	35 (-14%)	0% (3 pp)	475 (-3%)	1 pp	5 (-11%)	16% (-2 pp)
Woven cotton fabrics, less than 85% cotton, mixed with manmade fibres, w	111 (-6%)	0% (7 pp)	479 (0%)	2 pp	36 (6%)	20% (-2 pp)
Artificial filam. yarn, not for retail sale	68 (-6%)	0% (5 pp)	334 (2%)	0 pp	3 (6%)	1% (0 pp)
Woven pile and chenille fabrics	49 (-1%)	0% (10 pp)	857 (-0%)	3 pp	37 (0%)	11% (11 pp)
Flax, raw or processed, but not spun; flax tow and waste	302 (12%)	0% (1 pp)	189 (7%)	0 pp	2 (1%)	1% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

4.1.4. Wood and wood products

Ethiopia's exports of wood are currently exclusively destined to Sudan, even though market opportunities also exist in China and the EU. Sustainability concerns speak against setting up a commercial industry that would be positioned to serve international markets. It could rather be advisable to use the available resources to diversify the value chain, for instance, into wood pulp or wood marguetry and carpentry, which are also in high demand in China and Europe.

Even though the sector has not been prioritized in the GTP, the interviewed expert from the Chamber of Commerce and Sector Associations believes Ethiopia has the potential to produce and export wood furniture. Data from World Bank enterprise surveys (see box) suggests little global exposure of the wood manufacturing sector so far.

Sector info*

National export priority?

-2%

Employment growth:

Female labour participation: 31%

Prominence of SMEs:

63%

No

Foreign ownership share:

0%

Share of exporting firms:

0%

Table 20: Ethiopia's exported products with potential: Wood and wood products

	Total X potential	China		El	l	East Afri	ica
Product		X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Wood sawn and chipped lengthwise, sliced or peeled	5 075	2 764	100%	1 0	29 100%	146	41 %

Table 21: Ethiopia's related products for export diversification: Wood and wood products

	China		EU		East Africa		
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and	
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.	
Fuel wood; wood in chips or particles; sawdust, wood waste and scrap	1 066 (15%)	0 pp	3 506 (9%)	0 pp	20 (0%)	2% (0 pp)	
Wood in the rough	7 717 (13%)	0 pp	4 224 (4%)	0 pp	61 (27%)	2% (-1 pp)	
Chemical wood pulp, soda or sulphate, other than dissolving grades	7 747 (7%)	0 pp	11 012 (-2%)	0 pp	71 (16%)	2% (0 pp)	
Wood charcoal (including shell or nut charcoal)	46 (21%)	0 pp	409 (4%)	0 pp	13 (3%)	0% (0 pp)	
Wood marquetry and inlaid wood; caskets and cases or cutlery of wood	15 (6%)	0 pp	554 (3%)	1 pp	11 (4%)	31% (-8 pp)	
Plaits and similar products of plaiting material, mats, matting, screens	5 (1%)	2 pp	144 (-2%)	2 pp	3 (-1%)	19% (-3 pp)	
Articles of natural cork	10 (-6%)	8 pp	393 (1%)	0 pp	12 (-2%)	0% (-0 pp)	
Agglomerated cork and articles of agglomerated cork	23 (-2%)	8 pp	471 (0%)	0 pp	5 (1%)	2% (0 pp)	
Wood wool; wood flour	3 (6%)	3 pp	40 (8%)	0 pp	1 (-10%)	1% (1 pp)	

^{*} World Bank enterprise survey (2015). Sample size = eight firms of ISIC sector "Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials".

EXPORT POTENTIALS OF ETHIOPIA, KENYA, MOZAMBIQUE AND ZAMBIA

Mechanical wood pulp	27 (-1%)	0 pp	192 (-10%)	0 pp	0 (57%)	1% (-1 pp)
Builders' joinery and carpentry of wood	46 (19%)	7 pp	5 859 (3%)	0 pp	129 (7%)	19% (-11 pp)
Natural cork, roughly squared or in rectangular blocks or strips	2 (5%)	8 pp	33 (15%)	0 pp	0 (-33%)	3% (-2 pp)
Railway or tramway sleepers (cross-ties) of wood	4 (-17%)	0 pp	86 (7%)	0 pp	4 (47%)	5% (-5 pp)
Semi-chemical wood pulp	764 (-0%)	0 pp	342 (2%)	0 pp	1 (-16%)	0% (0 pp)
Natural cork, waste cork; crushed, granulated or ground cork	8 (6%)	1 pp	148 (6%)	0 pp	0 (62%)	6% (-6 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. *Applied tariff is 0% for all products in this table.

4.1.5. Chemicals

Chemicals, especially fertilizers, soap and detergent, have been prioritized under the GTP. The objective is to build up sufficient production capacities to satisfy local demand and substitute imports. The only chemical product with significant existing export potential is hair preparations. Exports have mostly gone to Sudan in the past. Potentials to export to other markets are limited, as the biggest importers of the product (the United States, United Kingdom and Germany) tend to purchase from nearby suppliers.

According to the Ethiopian Investment Commission, the sector has received FDI from China, India and Europe in different branches, ranging from soap and detergent to chemicals used in the leather and construction industries. Among the identified diversification options, demand is largest for organic chemicals, in China and the EU alike.

Sector info

National export priority? Yes

Employment growth:* 12%

Female labour participation:* 33%

Prominence of SMEs:* 14%

Foreign direct investment:** 33 deals (9 JVs)

Share of exporting firms:* 2%

* World Bank enterprise survey (2015). Sample size = 14 firms of ISIC sector "Manufacture of chemicals and chemical products".

Table 22: Ethiopia's exported products with potential: Chemicals

	Total X potential	China		EU		East Afr	ica
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$		X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Hair preparations	1 260	31	100%	262	94%	96	37%

^{**} Ethiopian Investment Commission.

Table 23: Ethiopia's related products for export diversification: Chemicals

	China		EU		East Afri	ca
Product	Market imports (US\$	Applied tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff
	million) and growth	and tariff adv.	million) and growth	adv.*	million) and growth	and tariff adv.
Vegetable tanning extracts; tannins and their salts	34 (-7%)	0% (6 pp)	97 (3%)	1 pp	3 (4%)	2% (-0 pp)
Casein, caseinates and other casein derivatives and glues	117 (23%)	0% (2 pp)	911 (7%)	1 pp	28 (9%)	0% (0 pp)
Mineral or chemical fertilizers, potassic	2 155 (7%)	0% (2 pp)	2 171 (-5%)	0 pp	163 (5%)	0% (-0 pp)
Essential oils; resinoids; terpenic by-products, etc.	221 (14%)	0% (12 pp)	1 388 (5%)	2 pp	41 (7%)	4% (-1 pp)
Heterocyclic compounds with nitrogen hetero-atom; nucleic acids and their	2 228 (-8%)	9% (0 pp)	21 407 (4%)	0 pp	120 (2%)	1% (0 pp)
Mixed alkylbenzenes and mixed alkyl naphthalenes, nes	46 (-4%)	0% (6 pp)	482 (2%)	1 pp	107 (5%)	0% (0 pp)
Mineral or chemical fertilizers, phosphatic	14 (-9%)	0% (1 pp)	418 (-0%)	0 pp	35 (10%)	0% (-0 pp)
Sulphonamides	115 (16%)	0% (6 pp)	3 142 (8%)	2 pp	16 (-1%)	1% (0 pp)
Oxygen-function amino-compounds	349 (1%)	0% (6 pp)	7 374 (5%)	5 pp	82 (7%)	0% (0 pp)
Acyclic alcohols and their derivatives	12 151 (1%)	4% (-0 pp)	9 440 (4%)	2 pp	185 (5%)	1% (-0 pp)
Ethers, ether-alcohols, ether-phenols, and peroxides and their derivatives	1 489 (1%)	0% (5 pp)	5 599 (2%)	2 pp	59 (1%)	0% (-0 pp)
Cyclic alcohols and their derivatives	274 (13%)	0% (5 pp)	554 (6%)	4 pp	7 (4%)	0% (-0 pp)
Mixtures of nitrogen, phosphorous or potassium fertilizers	838 (3%)	50% (0 pp)	4 687 (6%)	2 pp	646 (4%)	1% (-0 pp)
Mineral or chemical fertilizers, nitrogenous	26 (15%)	0% (4 pp)	7 562 (6%)	1 pp	884 (9%)	1% (-0 pp)
Derivatives of phenols	114 (-8%)	0% (5 pp)	90 (1%)	3 pp	3 (-11%)	0% (-0 pp)
Binders for foundry moulds or cores; chemical products and residuals nes	940 (17%)	0% (0 pp)	3 534 (5%)	1 pp	140 (5%)	7% (-0 pp)
Phenols; phenol-alcohols	1 917 (-7%)	0% (5 pp)	2 735 (3%)	2 pp	20 (-6%)	2% (0 pp)
Vegetable alkaloids and their salts, ethers, esters and other derivatives	30 (10%)	0% (3 pp)	580 (3%)	0 pp	22 (12%)	1% (0 pp)
Ketones and quinones, and their derivatives	810 (-4%)	0% (6 pp)	2 351 (3%)	2 pp	13 (-1%)	1% (-0 pp)
Amine-function compounds	658 (-5%)	0% (7 pp)	4 539 (1%)	2 pp	29 (-2%)	1% (-0 pp)
Saturated acyclic monocarboxylic acids and their derivatives	641 (3%)	0% (6 pp)	5 738 (4%)	1 pp	106 (5%)	0% (0 pp)
Turpentine oils; crude dipentene; pine oil, etc.	5 (38%)	0% (5 pp)	76 (3%)	2 pp	7 (4%)	1% (-1 pp)
Cyclic hydrocarbons	17 203 (17%)	0% (2 pp)	14 472 (4%)	0 pp	130 (-4%)	2% (-2 pp)
Carboxylic acids and their derivatives	136 (8%)	0% (6 pp)	1 757 (4%)	1 pp	77 (9%)	0% (0 pp)
Heterocyclic compounds with oxygen hetero-atom(s) only	294 (12%)	0% (6 pp)	2 585 (-5%)	1 pp	24 (7%)	0% (-0 pp)

4.1.6. Construction materials

Cement has been prioritized in the GTP with the principal objectives to satisfy local demand and to build capacity to serve export markets. Up to 2014, US\$ 1.7 million and US\$ 1.5 million exports were destined to neighbouring Djibouti and Somalia respectively. Ethiopia possesses other natural resources, like iron, copper or nickel, which are in very high demand in China and the EU (see table 25. "Related products for export diversification").

The construction and mining sectors are also expected to contribute significantly to Ethiopia's GDP over the period of the next GTP, running from 2015/16 to 2019/20. To make the industry internationally competitive, the GTP II foresees investment in capacity building to bring in new technologies and skills.

Challenges to realize additional exports in construction materials:²⁸

- · Capacity building for infusion and adaptation of skills and technologies,
- Bridge critical infrastructure gaps.

Sector info*

National export priority? Yes

Employment growth: 14% (16%)

Female labour participation: 30% (13%)

Prominence of SMEs: 89% (69%)

Foreign ownership share: 34% (4%)

Share of exporting firms: 1% (0%)

Table 24: Ethiopia's exported products with potential: Construction materials

	Total X potential	China		EU		East Afri	ica
Product		X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Cements, portland, aluminous, slag, supersulfate and similar hydr	1 332	8	100%	100	100%	543	80%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 25: Ethiopia's related products for export diversification: Construction materials

	China		EU		East Africa		
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and	
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.	
Nickel matte, nickel oxide sinters	913 (-4%)	0 pp	1 278 (-5%)	0 pp	44 (-24%)	0% (-0 pp)	
Unrefined copper; copper anodes for electrolytic refining	3 666 (9%)	0 pp	2 831 (-0%)	0 pp	5 (-31%)	2% (-0 pp)	
Unwrought aluminium	821 (-1%)	2 pp	20 314 (1%)	1 pp	149 (-3%)	0% (-0 pp)	
Ferrous prod obt. by dir. reduction of iron ore (minimum pure iron of 99.9)	294 (-24%)	1 pp	755 (0%)	0 pp	4 (-24%)	6% (0 pp)	
Ferro-alloys	3 522 (1%)	0 pp	10 750 (-1%)	0 pp	210 (12%)	1% (-1 pp)	
Pig iron and spiegeleisen in pigs	285 (-33%)	1 pp	1 779 (2%)	1 pp	2 (4%)	2% (-1 pp)	
Flat-rolled prod of iron or non-al/s wd>/=600mm,clad, plated or coated	2 780 (-4%)	5 pp	19 340 (-0%)	0 pp	1 086 (7%)	13% (-1 pp)	
Refined copper and copper alloys, unwrought	24 171 (1%)	0 pp	15 622 (-3%)	0 pp	131 (5%)	0% (-0 pp)	

²⁸ GTP II (draft).

^{*} World Bank enterprise survey (2015). Sample size = 62 (13) firms of ISIC sector "Manufacture of other non-metallic mineral products" ("Manufacture of basic metals").

Aluminium wire	48 (-1%)	7 pp	1 339 (5%)	2 pp	92 (0%)	0% (-0 pp)
Unwrought nickel	2 290 (-12%)	1 pp	6 656 (3%)	0 pp	24 (-12%)	0% (0 pp)
Cobalt mattes and other products and articles of cobalt (incl. waste and scrap)	595 (0%)	3 pp	787 (-0%)	0 pp	6 (40%)	0% (0 pp)
Unwrought lead	127 (-15%)	2 pp	2 224 (1%)	1 pp	44 (6%)	2% (0 pp)
Copper mattes; cement copper (precipitated copper)	252 (-17%)	1 pp	166 (-17%)	0 pp	1 (-53%)	3% (-2 pp)
Cast articles of iron or steel nes	162 (-2%)	9 pp	3 906 (5%)	0 pp	133 (11%)	8% (-4 pp)
Antimony and articles thereof, including waste and scrap	2 (-21%)	4 pp	126 (-3%)	4 pp	2 (-2%)	0% (-0 pp)
Lead plates, sheets, strip and foil; lead powders and flakes	5 (-0%)	6 pp	200 (4%)	0 pp	10 (-19%)	7% (-0 pp)
Angles, shapes and sections of iron or non-alloy steel	191 (3%)	6 pp	5 704 (2%)	0 pp	264 (2%)	12% (-7 pp)
Nickel bars, rods, profiles and wire	203 (-3%)	6 pp	1 183 (5%)	0 pp	4 (-12%)	1% (0 pp)
Bars and rods, hot-rolled, in irregularly wound coils, of other alloy steel	174 (5%)	3 pp	1 351 (1%)	0 pp	46 (40%)	1% (2 pp)

In addition to the mentioned sectors with export potential, recent investments into Ethiopia's automotive industry have augmented the country's capacity to manufacture cars. In 2014, China's Lifan Group opened a factory that can assemble up to 20 cars per day, employing imported inputs, but local workers. These cars are price-competitive on the Ethiopian market, where imported second-hand vehicles are subject to a 35% import tax.²⁹

²⁹ http://edition.cnn.com/2016/04/12/africa/ethiopian-car-industry-mpa/.

4.2. Kenya's sectors with export potential

Kenya has the most diversified economy of the four countries and, consequently, many sectors have an export potential of more than US\$ 5 million. By far, the highest potential is found in vegetable products, notably in black tea, where Kenya has a huge comparative advantage relative to other suppliers. Promising markets comprise the EU, Arab and Middle Eastern countries, the United States and the Russian Federation. Textile exports follow a similar geographic pattern, with the greatest potentials in the EU and rest of the world (RoW) markets. Attractive markets for processed food and beverages and animal or vegetable fats are, by contrast, located in East Africa.

Across all sectors, China's share in Kenya's markets with export potential is relatively small. China applies MFN tariffs to Kenyan exports and, therefore, the country suffers for many of its products from tariff disadvantages as compared to other (African) suppliers that have preferential access to the Chinese market. Trade potentials suffer from this as well as from a demand structure that differs from Kenya's export specialization.

All sectors Excl. vegetable products 0.4 4 **US**\$ billions JS\$ billions 3.5 0.35 3 0.3 2.5 0.25 2 0.2 1.5 0.15 0.1 1 0.5 0.05 Metals Animal or vegetable fats Metals Stone products Leather and leather products Animal or vegetable fats Live animals; animal products Live animals; animal products Footwear, hats, umbrellas Paper products Miscellaneous manufactured articles Mineral products extiles and textile articles Food, beverage, tobacco Chemicals Footwear, hats, umbrellas Mineral products Food, beverage, tobacco Leather and leather products Chemicals Plastics and rubber Wood and wood products Plastics and rubber Paper products Miscellaneous manufactured articles Stone products Wood and wood products Machinery Vegetable products extiles and textile articles ■ China ■ EU ■ East Africa ■ RoW ■ China ■ EU ■ East Africa ■ RoW

Figure 7: Kenya's high potential sectors

Note: Graphs show sectors with a total export potential of more than US\$ 5 million.

4.2.1. Animal-based products

Kenya's Agricultural Sector Development Plan considers the livestock and fishery subsectors as possessing a "huge potential for growth that has not been exploited". A large livestock base counting 60 million heads and good geographic conditions for aquaculture with many rivers, lakes and the Indian Ocean back this perception.

Live animals and animal products

In contrast to Ethiopia, Kenya hardly relies on the exports of live animals. Among the animal-based products, goat meat has the biggest potential for exports exceeding US\$ 10 million. Attractive markets are the United States and the Middle East, where demand is highest. Within the Middle East, "new" markets like Saudi Arabia, where goat meat is experiencing a boom relative to other products, could complement "traditional" markets like Oman, where demand is actually slowing down. Note that Ethiopia, with a global export potential for goat meat that is 10 times as big as Kenya's, is already present in the Saudi Arabian market.

Given its large herd comprising 18 million cattle, 17 million sheep and 25 million goats, Kenya has many options to diversify its livestock exports. The EU appears to be an attractive destination, especially compared with the regional and the Chinese market, where Kenya faces tariff disadvantages over its competitors. To avoid competition with Ethiopia, Kenya may consider diversifying into prepared or preserved bovine meat. Here, the country could possibly benefit from its established meat processing industry as well as from significant demand and tariff advantages in the EU market.

Challenges to realize additional exports in live animals and animal products: 30

- · Poor livestock productivity,
- Lacking capacity to deal with pests and diseases,
- Poor access to international markets and lack of market information.

Table 26: Kenya's exported products with potential: Live animals and animal products

	Total X potential	China		EU			East Africa		
Product	(US\$ thousand)	X potential (US\$ thousand)		X potential (US: thousand)	unused potenti		X potential (U thousand)		unused potential
Goat meat, fresh, chilled or frozen	10 222				385 • 1	00%		395	99%
Sausage and similar products of meat, meat offal or blood and foo	1 455		6 ● 95%		383 🌒 1	00%		643 (3 7%
Live animals, nes	1 447	5:	3 ● 100%		245 🕕	41%		457 🧲) 69%
Swine meat cured, nes	1 017		4 ● 97%		139 🌑	99%		418 (O 4%

Note: The table lists products with a total export potential of more than US\$ 1 million.

³⁰ Agriculture Sector Development Plan.

Table 27: Kenya's related products for export diversification: Live animals and animal products

	China	ì	EU		East Afr	ica
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.
Bovine cuts boneless, frozen	480 (73%)	12% (-2 pp)	2 003 (2%)	19 pp	215 (7%)	18% (-6 pp)
Goats, live	0	5% (0 pp)	3 (1%)	0 pp	14 (-8%)	0% (1 pp)
Bovine edible offal, frozen nes	44 (33%)	12% (-1 pp)	130 (9%)	0 pp	40 (7%)	5% (0 pp)
Bovine meat and meat offal nes, excluding livers, prepared or preserved	1 (12%)	12% (-0 pp)	1 133 (1%)	11 pp	45 (13%)	19% (-3 pp)
Sheep, live	3 (54%)	5% (0 pp)	285 (-3%)	0 pp	16 (11%)	0% (0 pp)
Sheep cuts, boneless, frozen	24 (26%)	15% (-7 pp)	452 (-2%)	32 pp	3 (-3%)	36% (-1 pp)
Sheep carcasses and half carcasses, frozen	30 (546%)	23% (-18 pp)	4 (-6%)	24 pp	1 (-33%)	27% (-9 pp)
Edible products of animal origin nes	17 (-2%)	19% (-11 pp)	32 (6%)	3 pp	1 (39%)	18% (-16 pp)
Horse, ass, mule or hinny meat, fresh, chilled or frozen	3 (-8%)	20% (0 pp)	352 (-3%)	2 pp	1	0% (0 pp)
Swine carcasses and half carcasses, frozen	1 (-5%)	12% (-1 pp)	74 (-9%)	0 pp	4 (10%)	11% (-3 pp)
Sheep, goats, asses, mules or hinnies edible offal, frozen	37 (20%)	18% (-10 pp)	41 (0%)	2 pp	7 (-10%)	0% (0 pp)
Lamb carcasses and half carcasses, frozen	18 (301%)	15% (-11 pp)	36 (-5%)	21 pp	8 (3%)	39% (-38 pp)
Bovine tongues, edible offal, frozen	0 (17%)	12% (-4 pp)	14 (5%)	0 pp	1 (-2%)	3% (-0 pp)
Sheep cuts, boneless, fresh or chilled	0 (-46%)	15% (-0 pp)	249 (2%)	27 pp	0 (-41%)	23% (-11 pp)
Sheep cuts, bone in, frozen	499 (43%)	12% (-6 pp)	618 (0%)	28 pp	12 (-16%)	35% (-0 pp)
Ossein and bones treated with acid, unworked, defatted or simply prepared	0 (88%)	12% (0 pp)	31 (7%)	0 pp	0 (47%)	0% (2 pp)
Sheep cuts, bone in, fresh or chilled	9 (92%)	15% (-1 pp)	565 (3%)	26 pp	1 (-5%)	29% (-20 pp)

Fisheries

The move from subsistence to commercial aquaculture has triggered a more than fourfold increase of production since 2000. Consequently, the Industrial Transformation Programme identifies fish processing as a flagship project for developing Kenya's industrial base. Overfishing in the past has created the need for developing more sustainable practices and exploring new waters. The Indian Ocean offers new opportunities, but currently only a small fraction of the one million tons of tuna caught is actually processed in the country. Infrastructural improvements could create 12,000 jobs and up to US\$ 200 million of GDP revenue, the authors estimate.

The export potential assessment indeed suggests considerable potentials in prepared and preserved tuna exports, especially to the EU. Roughly 80% of the existing US\$ 17.8 million potential is yet to be realized. New market opportunities exist, for example, in the United Kingdom, where prepared and preserved tuna worth US\$ 5.5 million could be sold. The US market offers similarly high unexploited potentials. Other processed fish products for export diversification include fish meal and fish or fish-liver oil. Fish fats and oils are in high and growing demand in the EU.

Challenges to realize additional exports in fisheries:³¹

• Inadequate supportive infrastructure such as cold storage, roads, fish port and electricity,

³¹ Agriculture Sector Development Plan.

- Inadequate budgetary provisions,
- Environmental degradation due to invasive weeds such as water hyacinth,
- · Weak producer organizations,
- · Lack of collateral and access to credit facilities,
- Ineffective marketing information,
- · Lack of adequate and quality fish seed and feed,
- Inadequate research-extension links,
- Illegal, unregulated and unreported fishing; weak monitoring control and surveillance systems,
- Low fishing technology,
- Stringent sanitary and phytosanitary standards set by major export destinations,
- Diminishing fish stocks.

Table 28: Kenya's exported products with potential: Fisheries

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$		X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Tunas, skipjack and atl. bonito, prepared or preserved, whole or i	31 311	13	100%	17 773	81%	599	99%
Fish fillets, frozen	27 823	53	0%	13 718	80%	327	O 27%
Other frozen fish, whole	13 363	1 971	100%	1 814	9 80%	1 989	98%
Other cured fish; fins, heads, tails, maws and other edible fish offal,	8 908	10	O 0%	1 613	100%	3 957	97%
Fish fillets and pieces, fresh or chilled	8 527	2	0%	3 974	O 27%	491	82%
Octopus, frozen, dried, salted or in brine	1 315	29	100%	677	O 13%	1	100%

Table 29: Kenya's related products for export diversification: Fisheries

	China		EU		East Afi	rica
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Flour, meal and pellet of fish, crust, mol./other aqua invert, unfit for human cons.	1 551 (-1%)	4% (-2 pp)	1 020 (-2%)	0 pp	13 (-21%)	0% (-0 pp)
Frozen shrimps and prawns	405 (19%)	6% (-2 pp)	4 562 (6%)	5 pp	59 (10%)	3% (0 pp)
Fish fats and oils and their fractions, excl. liver, refined, not chemically mod.	87 (4%)	12% (-7 pp)	596 (7%)	2 pp	2 (7%)	1% (-0 pp)
Fish meat, frozen	56 (16%)	10% (-6 pp)	742 (2%)	3 pp	17 (-8%)	13% (-9 pp)
Sardines, sardinella and brisig or sprats, prep. or preserved, whole or pieces, excl. minced	1 (10%)	5% (-4 pp)	314 (2%)	1 pp	197 (3%)	7% (-0 pp)
Prepared or preserved shrimps and prawns	6 (10%)	7% (-7 pp)	1 711 (2%)	7 pp	8 (1%)	1% (0 pp)
Rock lobster and other sea crawfish, not fz, in shell or not, incl. boiled in shell	220 (42%)	8% (-4 pp)	30 (-1%)	2 pp	0 (-2%)	1% (-0 pp)
Lobsters nes, frozen, in shell or not, incl. boiled in shell	13 (18%)	10% (-2 pp)	101 (3%)	9 pp	0 (-8%)	15% (-11 pp)
Crabs, frozen, in shell or not, including boiled in shell	186 (9%)	10% (-1 pp)	171 (5%)	2 pp	2 (15%)	1% (0 pp)
Frozen tuna, whole	6 (21%)	12% (-1 pp)	57 (8%)	2 pp	5 (3%)	1% (4 pp)
Sole, frozen, excluding heading no. 03.04, livers and roes	12 (-6%)	12% (-8 pp)	60 (-2%)	0 pp	2 (-1%)	0% (0 pp)
Rock lobster and other sea crawfish, frozen in shell or not, incl. boiled in shell	8 (18%)	10% (-1 pp)	183 (-2%)	4 pp	2 (32%)	1% (-0 pp)
Other crustaceans, frozen	10 (3%)	16% (-11 pp)	308 (2%)	1 pp	2 (18%)	2% (1 pp)
Other fresh or chilled fish, whole	8 (28%)	12% (-4 pp)	2 070 (0%)	1 pp	6 (13%)	2% (1 pp)
Ornamental fish	6 (31%)	18% (-15 pp)	158 (-3%)	2 pp	3 (5%)	0% (0 pp)
Mackerel, prepared or preserved, whole or in pieces, but not minced	1 (24%)	12% (-6 pp)	288 (7%)	1 pp	7 (10%)	13% (-2 pp)
Fresh or chilled tuna, whole	2 (24%)	12% (-0 pp)	37 (-3%)	0 pp	0 (50%)	5% (1 pp)
Octopus, frozen, dried, salted or in brine	24 (-0%)	17% (-8 pp)	777 (4%)	1 pp	1 (22%)	12% (0 pp)
Fish-liver oils and their fractions, refined or not, but not chemically mod.	5 (2%)	12% (-8 pp)	51 (6%)	0 pp	0 (8%)	0% (0 pp)
Shrimps and prawns, not frozen	51 (29%)	10% (-8 pp)	368 (10%)	1 pp	1 (34%)	6% (4 pp)
Salmonidae nes, fresh or chilled, excl. heading no. 03.04, livers and roes	2 (51%)	12% (-0 pp)	69 (2%)	0 pp	2 (-4%)	24% (-23 pp)
Frozen trout	36 (3%)	12% (-9 pp)	78 (7%)	0 pp	2 (15%)	25% (-14 pp)
Frozen dogfish and other sharks	8 (-9%)	12% (-4 pp)	61 (4%)	1 pp	1 (12%)	2% (1 pp)
Other crustaceans, not frozen	15 (52%)	7% (-7 pp)	172 (2%)	0 pp	1 (52%)	5% (-0 pp)
Cuttlefish and squid, shelled or not, live, fresh or chilled	4 (-19%)	6% (-0 pp)	226 (3%)	0 pp	0 (19%)	4% (-1 pp)
Frozen hake	22 (20%)	12% (-2 pp)	231 (-4%)	4 pp	29 (-5%)	1% (-0 pp)
Coral and sim mat, shellfish shell, cuttl bone, echinoderm unwk unshp pdr and waste	22 (-0%)	12% (-7 pp)	44 (5%)	0 pp	0 (10%)	5% (0 pp)
Frozen seabass	0 (-18%)	12% (-2 pp)	17 (17%)	0 pp	0 (37%)	3% (0 pp)
Anchovies, prepared or preserved, whole or in pieces, but not minced	0 (58%)	12% (-0 pp)	163 (5%)	3 pp	1 (-3%)	24% (-0 pp)
Tunas, yellowfin, fresh or chilled, excl. heading no. 03.04, livers and roes	0 (25%)	12% (-7 pp)	61 (11%)	5 pp	0 (111%)	2% (0 pp)
Halibut, frozen, excluding heading no. 03.04, livers and roes	124 (2%)	9% (-0 pp)	199 (4%)	2 pp	0 (-10%)	0% (0 pp)
Eels, live	14 (10%)	5% (-2 pp)	73 (-4%)	0 pp	0	0% (0 pp)
Lobster, prepared or preserved	4 (83%)	8% (0 pp)	17 (-10%)	6 pp	0 (-52%)	15% (-6 pp)
Frozen eels	4 (-24%)	12% (-8 pp)	16 (-9%)	0 pp	0 (-24%)	2% (-2 pp)
Snails(excl. sea), shelled or not, live, fresh, chd, fz, dried, salted or in brine	8 (-43%)	7% (-2 pp)	48 (8%)	0 pp	0 (-11%)	10% (-0 pp)
Plaice, frozen, excluding heading no. 03.04, livers and roes	69 (-35%)	2% (0 pp)	16 (-4%)	0 pp	0 (18%)	18% (0 pp)
Fresh or chilled, eels	0 (-21%)	12% (-1 pp)	8 (-4%)	0 pp	0 (4%)	0% (23 pp)
Frozen haddock	107 (4%)	12% (0 pp)	64 (5%)	1 pp	0 (-36%)	7% (0 pp)
Frozen coalfish	34 (-4%)	12% (-1 pp)	33 (-16%)	0 pp	0	7% (-5 pp)

Tunas, albacore or longfinned, fr or chd, excl. heading no. 03.04, livers and roes	1 (-2%)	12% (0 pp)	37 (16%)	0 pp	0 (-43%)	0% (-0 pp)
Skipjack o stripe-bellied bonito, fr or chd, excl. heading no. 03.04, livers and roes	0 (81%)	12% (0 pp)	9 (14%)	0 pp	0	0% (25 pp)

Leather and leather products

Kenya's leather sector has a large potential for exports. Currently, almost US\$ 50 million exports could be realized in bovine and swine leather. The EU is an important market. Unexplored opportunities exist mostly in swine leather exports to Italy, the Netherlands and the Kingdom of Spain. Export potentials of bovine leather in Asian markets, notably in Hong Kong and China, are also not yet fully used.

Kenya's Industrial Transformation Programme states that further leather processing could have substantial economic benefits and create 35,000 jobs (currently up to 14,000, many of them in the informal sector, according to the interviewees). One objective would be to partially substitute the country's shoe imports that stand at US\$ 86 million according to the report (according to Trade Map, leather shoe imports fluctuate at around US\$ 15-US\$ 20 million). However, current export potentials of footwear are limited. Articles of apparel and accessories made out of leather emerge as a viable diversification option, but have not yet been exported. The Industrial Transformation Programme identifies low-quality skins and hides and lacking expertise as the major limiting factors. Stakeholder consultations confirmed that most leather good producers are small, with an output of less than 200 units per day. With demand and market access conditions in the EU being favourable, it would take investment into production capacities to expand export potentials of finished leather articles.

Both interviewed experts, from the Kenyan Investment Authority and from the Leather Development Council, emphasized that the entire value chain from livestock and meat to finished leather products should be targeted, with a focus on higher value-added activities. While export processing zones (EPZs) have resolved land availability issues, they are constrained to firms serving foreign markets. To exploit the opportunities the growing Kenyan middle class offers, similar zones would need to be established for local sales.

Sector info*

National export priority? Yes Employment growth:* 1% Female labour participation:* 25% Prominence of SMEs:* 50% Foreign direct investment:* 9% Share of exporting firms:* 18%

^{*} World Bank enterprise survey (2013). Sample size = eight firms of ISIC sector "Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear".

Table 30: Kenya's exported products with potential: Leather and leather products

	Total X potential	China		EU		East Africa		
Product	(US\$ thousand)	X potential (US\$ thousand)		X potential (US\$ thousand)		F	unused potential	
Raw hides and skins (other than furskins) and leather, of bovine o	49 490	,	•	,	•		•	
Raw hides and skins (other than furskins) and leather, of swine an	48 817	2 41	5 0 0%	18 641	● 71%	874	● 97%	
Raw or tanned (in the wet state) skins of sheep or lamb, without w	36 549	2 78	3 🛈 59%	9 426	● 74%	53 (100%	
Footwear, nes	3 662		1 • 91%	1 351	89%	581 (O 8%	
Hides and skins (in the dry state) and leather of goats or kids, with	3 589	16	76%	1 396	3 6%	63 (100%	
Skins (in the dry state) and leather of sheep or lamb, without woo	1 360	7	1 0 0%	277	O 19%	35	1 00%	
Footwear, upper of leather	1 158		93%	484	● 66%	55 (O 19%	

Table 31: Kenya's related products for export diversification: Leather and leather products

	China	l	EU		East Africa	
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Articles of apparel and clothing access., of leather or composition leather	165 (16%)	20% (-6 pp)	3 858 (3%)	4 pp	51 (4%)	18% (-1 pp)
Tanned or dressed fur skins and pieces, unassembled or assembled	190 (19%)	20% (-9 pp)	647 (6%)	0 pp	1 (10%)	8% (-2 pp)
Raw fur skins and pieces suitable for furriers' use, nes	806 (14%)	15% (0 pp)	1 098 (15%)	0 pp	0 (15%)	0% (-0 pp)
Chamois leather, incl. combination chamois leather (excl. glacé-tanned leather subsequently	98 (-0%)	14% (-2 pp)	267 (8%)	0 pp	3 (-2%)	1% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in leather and leather products: 32

- · Low-quality skins and hides,
- Lacking expertise in finished leather articles,
- High cost of chemicals (25% duty on imports),
- Informal organization only among farmers and traders,
- Productivity is very low, with five to seven pairs per employee, up to 13 in some areas; much lower than Asia.

³² Industrial Transformation Programme and stakeholder interviews.

4.2.2. Vegetable-based products

More than half of Kenya's exports are related to agriculture, including traditional crops like tea, coffee and pulses, and cut flowers. Raw products constitute the bulk of these exports. Kenya's Industrial Transformation Plan envisages building processing zones and infrastructure around the Mombasa port to transform local and imported commodities for regional exports. Major challenges include the low use of fertilizers and machinery and reduced agricultural extension services.

Fruits and vegetables

Favourable growing conditions for a wide range of fruits and vegetables lead to numerous export opportunities. According to UNCTAD's "Investment Guide for Kenya", Dutch and British investments have helped to secure a good quality of fresh produce that meet EU market access requirements. The report sees continued growth potential, as market penetration is still low. High export potentials include, for instance, avocados and mangoes, the latter being mostly exported to the Middle East. Bananas represent a good option for export diversification: Kenya produced 1.4 million tons in 2014 and demand in the EU is huge. Kenya would furthermore benefit from a small tariff advantage over many Latin American competitors that do not have duty-free access to the EU market.

Sector info*

National export priority? Yes
Employment growth:* 0%
Female labour participation:* 35%
Prominence of SMEs:* 81%

Foreign direct investment:* 4%

Share of exporting firms:* 12%

Despite good export potentials in fresh fruits and vegetables, Kenya's strategic focus seems to lie in fruit and vegetable processing, which is expected to increase the sector's competitiveness in global markets. The EU market shows high potentials for prepared pineapples and pineapple juice, where Kenya could draw on its fresh pineapple production of almost 129,000 tons.

^{*} World Bank enterprise survey (2013). Sample size = 159 firms of ISIC sector "Manufacture of food and beverages".

Table 32: Kenya's exported products with potential: Fruits and vegetables

	Total X potential	China		EU		East Afr	ica
Product	(US\$ thousand)	X potential (US\$		X potential (US\$		X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Pineapples nes, o/w prep. or presved, sugared, sweetened, spirit	103 352	233	100%	56 94	3 7%	1 473	→ 76%
Vegetables nes, fresh or chilled	76 895	8	O 0%	7 466	0 14%	62 930	94%
Avocados, fresh or dried	37 838	39	93%	27 207	53%	65	• 100%
Pineapple juice, unfermented	33 409	29	100%	24 389	59%	2 474	● 88%
Vegetable products nes	32 838	1 481	100%	10 383	76%	15 775	0 2%
Mixtures of juices unfermented and not spirited, whether or not sug	18 058	70	100%	1 008	100%	13 257	62%
Guavas, mangoes and mangosteens, fresh or dried	11 207	139	100%	7 66	98%	486	o 58%
Cauliflowers and headed broccoli, fresh or chilled	4 555	_	-	2 653	44%	73	● 80%
Fruits nes, fresh	1 560	127	100%	690	0 6%	117	31%
Jams, fruit jellies, fruit or nut purée and paste, cooked, prepared, s	1 314	15	100%	281	3 71%	398	0 11%
Aubergines (egg-plants), fresh or chilled	1 179	_	_	729	50%	2	100%

Table 33: Kenya's related products for export diversification: Fruits and vegetables

	Chi	na	EU		East A	frica
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Bananas and plantains, fresh or dried	307 (34%)	10% (-9 pp)	5 719 (3%)	2 pp	29 (15%)	5% (-5 pp)
Pineapples, fresh or dried	22 (40%)	12% (-11 pp)	1 099 (1%)	0 pp	1 (7%)	12% (-7 pp)
Melons, fresh, other than watermelons	2 (-54%)	12% (-12 pp)	909 (4%)	2 pp	1 (2%)	13% (-11 pp)
Oranges, fresh or dried	75 (9%)	11% (-0 pp)	2 346 (-1%)	4 pp	40 (-5%)	9% (-1 pp)
Manioc (cassava), fresh or dried, whether or not sliced or pelleted	1 589 (12%)	8% (-8 pp)	34 (3%)	1 pp	1 (-1%)	1% (1 pp)
Dates, fresh or dried	4 (24%)	15% (-0 pp)	278 (6%)	3 pp	8 (3%)	4% (7 pp)
Manioc (cassava) starch	741 (19%)	10% (-10 pp)	36 (5%)	9 pp	10 (-2%)	5% (-0 pp)
Arrowroot, salep (yams), etc.	3 (14%)	12% (-11 pp)	58 (4%)	2 pp	1 (4%)	3% (0 pp)
Papaws (papayas), fresh	1 (9%)	25% (-19 pp)	84 (6%)	0 pp	1 (10%)	12% (-9 pp)
Coconuts, desiccated	8 (36%)	12% (-12 pp)	234 (16%)	0 pp	12 (18%)	5% (3 pp)
Watermelons, fresh	27 (3%)	25% (-25 pp)	614 (3%)	0 pp	1 (8%)	14% (-13 pp)
Cherries, fresh	265 (50%)	10% (-8 pp)	438 (4%)	1 pp	1 (3%)	9% (-1 pp)
Peaches, including nectarines, fresh	1 (-15%)	10% (0 pp)	1 354 (-0%)	0 pp	4 (-3%)	9% (-3 pp)
Cranberries, bilberries and other fruits of the genus vaccinium, fresh	14 (69%)	30% (-29 pp)	482 (17%)	1 pp	0 (4%)	2% (-1 pp)

Coconuts, not desiccated	62 (30%)	9% (-9 pp)	43 (13%)	0 pp	1 (28%)	20% (-3 pp)
Tapioca subst. prep. from starch in flake, grain, pearl, siftg or sim forms	6 (24%)	15% (-7 pp)	15 (3%)	10 pp	1 (-4%)	0% (0 pp)
Figs, fresh or dried	3 (61%)	30% (-0 pp)	228 (6%)	0 pp	1 (2%)	16% (0 pp)
Apricots, dried	1 (15%)	25% (-0 pp)	190 (3%)	0 pp	1 (-5%)	11% (0 pp)
Flour and meal of sago and of roots or tubers with high starch or inulin content	4 (13%)	20% (-19 pp)	9 (16%)	2 pp	1 (15%)	4% (1 pp)
Brussels sprouts, fresh or chilled	0	13% (0 pp)	80 (4%)	0 pp	0 (-9%)	7% (1 pp)
Aubergines (eggplants), fresh or chilled	0 (0%)	13% (0 pp)	272 (3%)	0 pp	0 (9%)	3% (-0 pp)
Copra	0 (-25%)	15% (-12 pp)	3 (-35%)	0 pp	1 (5%)	2% (0 pp)
Raspberries, mulberries, etc., uncooked, steamed or boiled in water, sweetened, not frozen	6 (-5%)	30% (-5 pp)	620 (6%)	1 pp	1 (16%)	20% (-13 pp)
Peel of citrus fruit and melons (watermelons), fresh, frz, dried, prov. preserved	3 (23%)	25% (-2 pp)	49 (14%)	0 pp	0 (4%)	6% (0 pp)
Palm hearts nes, o/w prep. or preserved, whether or not sugared, sweet or spirited	0 (78%)	5% (-3 pp)	52 (1%)	0 pp	0 (-5%)	26% (-4 pp)
Chicory, fresh or chilled, nes	0	13% (0 pp)	134 (0%)	0 pp	0 (24%)	13% (-0 pp)

Nuts, oilseeds and edible oils

Kenya has a huge potential for vegetable fats, like margarine, especially in East Africa. Rwanda is a big, yet so far little explored market that promises an additional US\$ 11 million of export revenues. Even in traditional markets like the United Republic of Tanzania, exports could still grow. Since Kenya has a strong (and, in the case of margarine, growing) comparative advantage, a substantial increase in exports seems realistic.

The interviewed experts also considered the nuts sector as interesting: Kenya has the right climatic conditions and market opportunities prevail, for instance, in Europe. Data from FAO confirms that groundnuts and cashew nuts are produced in large (94,000 and 30,000 tons respectively) and growing quantities.

Table 34: Kenya's exported products with potential: Nuts, oilseeds and edible oils

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Nuts nes	64 622	798	38 %	23 208	● 70%	991	68%
Vegetable fats, oils and fractions, hydrogenated, inter- or re-esterifi	49 721	313	100%	1 063	100%	43 110	① 55%
Margarine, excluding liquid margarine	49 031	67	100%	2 515	100%	38 094	3 9%
Cashew nuts, without shell, fresh or dried	9 203	35	100%	4 608	93%	61	6 1%
Vegetable fats, oils nes and their fractions, refined or not but not ch	2 957	31	82%	705	O 19%	1 153	58 %

Table 35: Kenya's related products for export diversification: Nuts, oilseeds and edible oils

	China		EU		East Afr	ica
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Sesamum seeds, whether or not broken	706 (18%)	5% (-5 pp)	307 (13%)	0 pp	12 (1%)	6% (-1 pp)
Coconut (copra) oil and its fractions, refined, but not chemically modified	103 (21%)	9% (-9 pp)	322 (6%)	1 pp	9 (55%)	1% (1 pp)
Palm oil, crude	68 (-57%)	9% (0 pp)	4 302 (2%)	1 pp	344 (11%)	0% (-0 pp)
Groundnuts, not roasted	33 (18%)	8% (-1 pp)	1 023 (8%)	0 pp	51 (-3%)	4% (-2 pp)
Cashew nuts, in shell, fresh or dried	3 (50%)	10% (-8 pp)	12 (-14%)	0 pp	1 (-43%)	6% (-1 pp)
Palm kernel and babassu oil, and their fractions, refined, but not chemically modified	222 (73%)	9% (-9 pp)	271 (10%)	6 pp	42 (-1%)	0% (1 pp)
Soya bean oil, crude, whether or not degummed	1 409 (-6%)	9% (0 pp)	1 009 (-8%)	1 pp	128 (-6%)	5% (-3 pp)
Sunflower seed or safflower oil, crude	242 (28%)	9% (0 pp)	2 052 (5%)	1 pp	218 (8%)	7% (7 pp)
Coconut (copra) oil, crude	112 (-27%)	9% (-9 pp)	791 (1%)	2 pp	3 (5%)	0% (1 pp)
Palm kernel or babassu oil, crude	308 (-25%)	9% (-9 pp)	529 (3%)	4 pp	6 (-2%)	0% (0 pp)
Vegetable waxes, excluding triglycerides, whether or not refined or coloured	21 (13%)	20% (-8 pp)	73 (9%)	0 pp	3 (3%)	5% (1 pp)
Groundnut oil, crude	101 (10%)	10% (0 pp)	121 (-1%)	2 pp	0 (29%)	6% (-5 pp)
Palm nut and kernel oilcake and other solid residues, whether or not ground or pellet	58 (19%)	5% (-5 pp)	485 (11%)	0 pp	5 (5%)	7% (0 pp)
Coconut and copra oilcake and other solid residues, whether or not ground or pellet	19 (1%)	5% (-5 pp)	10 (2%)	0 pp	0 (50%)	3% (3 pp)
Sunflower seed oilcake and other solid residues, whether or not ground or pellet	0 (6%)	5% (0 pp)	1 063 (19%)	0 pp	28 (7%)	6% (-1 pp)
Cottonseeds	64 (27%)	8% (-0 pp)	76 (1%)	0 pp	13 (-6%)	8% (-5 pp)
Olives, prepared or preserved, other than by vinegar or acetic acid, not frozen	2 (15%)	10% (0 pp)	731 (4%)	0 pp	10 (4%)	32% (-2 pp)
Olive oil, virgin	133 (11%)	10% (-0 pp)	2 930 (5%)	3 pp	26 (5%)	10% (-5 pp)
Cottonseed and its fractions, refined, but not chemically modified	0 (-30%)	10% (0 pp)	7 (-17%)	0 pp	19 (9%)	8% (-4 pp)
Oils and their fractions nes, obt. from olives, refined, not chemically modified, incl. blends	9 (1%)	10% (-0 pp)	154 (6%)	1 pp	3 (10%)	8% (10 pp)
Brazil nuts, without shell, fresh or dried	0 (31%)	10% (0 pp)	124 (12%)	0 pp	2 (1%)	0% (0 pp)
Olive oil and its fractions, refined, but not chemically modified	12 (9%)	10% (0 pp)	451 (6%)	2 pp	21 (11%)	11% (-2 pp)
Olives, provisionally preserved, but not suitable for immediate consumption	0 (10%)	13% (0 pp)	41 (6%)	0 pp	1 (-15%)	21% (-14 pp)
Cottonseed oilcake and other solid residues, whether or not ground or pellet	3 (-6%)	5% (-0 pp)	6 (16%)	0 pp	35 (9%)	6% (-4 pp)
Groundnut oilcake and other solid residues, whether or not ground or pellet	10 (-8%)	5% (-3 pp)	16 (-12%)	0 pp	0 (-16%)	6% (-3 pp)

Pulses

The EU is the predominant market for Kenya's fresh beans and peas. However, existing potentials are nearly exhausted. Unrealized potentials can still be found in kidney beans, especially in the Italian and British market that currently source more than US\$ 100 million of the crop from distant suppliers, such as China, the United States or Canada. An unexploited potential also exists in the regional market for kidney beans and preserved beans.

Table 36: Kenya's exported products with potential: Pulses

	Total X potential	China		EU		East Afr	ica
Product	(US\$ thousand)	X potential (US\$		X potential (US\$		X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Beans, shelled or unshelled, fresh or chilled	129 915	-	-	114 886	O 23%	1 026	69%
Peas, shelled or unshelled, fresh or chilled	30 520	-	-	21 643	O 10%	688	82%
Kidney beans and white pea beans, dried shelled, skinned or not	25 696	13	100%	10 976	98%	3 259	88%
Beans nes, prepared or preserved, other than by vinegar or acet	25 106	14	100%	13 991	O 22%	4 260	97%
Dried pigeon peas and other leguminous vegetables, shelled	13 854	244	100%	341	● 76%	413	89%
Urd, mung, black or green gram beans, dried, shelled, skinned o	10 162	67	100%	966	98%	740	96%
Dried bambara beans, cow peas and other beans, shelled	3 067	1	100%	490	94%	810	97%
Leguminous vegetables, shelled or unshelled, fresh or chilled nes	1 154	-	-	586	O 16%	74	100%

Table 37: Kenya's related products for export diversification: Pulses

	China	3	EU		East Africa		
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and	
	million) and growth	tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.	
Lentils, dried, shelled, whether or not skinned or split	2 (45%)	4% (-3 pp)	223 (-1%)	0 pp	66 (1%)	1% (0 pp)	
Broad beans and horse beans, dried, shelled, whether or not skinned or split	0 (-61%)	4% (-0 pp)	33 (2%)	0 pp	36 (-6%)	0% (2 pp)	
Beans, small red (adzuki) dried, shelled, whether or not skinned or split	1 (78%)	2% (-0 pp)	6 (14%)	0 pp	3 (2%)	6% (-3 pp)	

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Cereals

Kenya has the right geographic conditions to grow cereals. According to the FAO, Kenya harvested 65,402 tons of barley, 328,637 tons of wheat and 3.1 million tons of maize in 2014. This positions the country well to produce cereal-based foods and beverages. Kenya has significant potential to export malt beer, especially to the regional market, but also to other large importers, like the United States. Other processed products that could generate future export earnings include cereal flour and uncooked pasta.

Table 38: Kenya's exported products with potential: Cereals

	Total X potential	China		EU		East Africa		
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused	
		thousand)	potential	thousand)	potential	thousand)	potential	
Beer made from malt	32 180	480	100%	3 172	85%	20 549	31%	
Wheat bran, sharps and other residues, pelleted or not	3 402	32	100%	541	100%	109	100%	
Vodka	1 720	5	100%	193	93%	320	O 22%	
Maize (corn) flour	1 292	1	100%	41	82%	1 168	93%	
Fonio, quinoa, triticale and other unmilled cereals	1 261	1	0 0%	493	100%	181	O 24%	

Table 39: Kenya's related products for export diversification: Cereals

	China		EU		East Africa		
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and	
	million) and growth	tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.	
Wheat or meslin flour	13 (37%)	65% (-2 pp)	1 016 (9%)	0 pp	523 (9%)	2% (3 pp)	
Rice, broken	105 (49%)	65% (-33 pp)	275 (2%)	5 pp	99 (2%)	3% (0 pp)	
Rice, semi-milled or wholly milled, whether or not polished or glazed	772 (36%)	65% (-26 pp)	1 766 (5%)	5 pp	1 307 (7%)	7% (2 pp)	
Uncooked pasta, not stuffed or otherwise prepared, nes	14 (30%)	15% (-1 pp)	1 487 (5%)	1 pp	200 (19%)	12% (-1 pp)	
Cereal groats and meal nes	0 (39%)	8% (-1 pp)	26 (14%)	1 pp	4 (1%)	6% (-5 pp)	

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Coffee and tea

Black tea is still the leading foreign exchange earner in Kenya's export basket, offering an immense export potential of US\$ 2.1 billion. More than 90% of black tea is exported in bulk form, thus in packages exceeding 3 kg. Most of these exports go to Arab countries and the Middle East, Eastern Europe and Central Asia, and the United Kingdom. In many major export markets, there is still some room for growth. Kenya, however, may also venture into so far relatively unexplored markets, like the United States, where another US\$ 90 million of exports could be realized.

The Agricultural Sector Development Plan sees large, untapped potential in value-added tea and coffee products. The Industrial Transformation Programme also estimates that smaller-packaged and branded tea would generate a 50%–100% price premium, thereby creating 10,000 jobs. Currently, Kenya produces smaller packaged tea and tea essences on a significant scale, but the potentials for growing these products' exports are limited by declining comparative advantages. Particularly for tea essences, Kenya's competitive edge is further constrained by the fact that major importers often source from nearby suppliers (e.g. the United States from Canada, Mexico from the United States and the Netherlands from Ireland). Like Ethiopia, Kenya has so far failed to establish itself as a major supplier of roasted or decaffeinated coffee.

Table 40: Kenya's exported products with potential: Coffee and tea

	Total X potential	China	1	EU		East Africa	
Product		X potential (US\$	unused	X potential (US\$		X potential (US\$	unused
	,	thousand)	potential	thousand)	potential	thousand)	potential
Black tea (fermented) and partly fermented tea in packages > 3 kg	2 061 484	6 226	38%	491 738	o 59%	103 900	35%
Coffee, not roasted, not decaffeinated	299 724	458	4%	184 206	O 32%	7 998	84%
Tea or maté extracts, essences, concentrates and preparations th	10 314	49	0%	4 310	o 50%	303	86%
Black tea (fermented) and partly fermentd tea in packages ≤ 3 kg	6 598	31	● 79%	1 498	o 50%	1 088	72%
Green tea (not fermented) in packages exceeding 3 kg	3 219	10	0%	837	o 50%	142	93%
Coffee husks and skins, coffee substitutes	1 113	(0%	69	● 68%	876	96%

Floriculture

Kenya has exported flowers since the 1990s after foreign investment infused new technologies, quality upgrades and infrastructural improvements. Today, the sector is composed of a few large players and heavily concentrated on the exports of roses. The sector has a traditional focus on the European market, but existing potentials are nearly exhausted. Additional exports may be realized in the US market, where Kenya also enjoys duty-free access. In contrast to cut flowers, cuttings and slips still have unexploited potentials, in the EU and in the regional market alike.

Table 41: Kenya's exported products with potential: Floriculture

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Cut flowers and flower buds for bouquets, fresh	491 990	312	9 35%	330 458	O 9%	988	● 70%
Cuttings and slips, unrooted	110 855	503	● 75%	96 737	o 60%	3 378	● 67%
Cut flowers and flower buds for bouquets or ornamental purposes	4 744	35	O 0%	3 155	3 0%	110	80%
Foliage, branche, etc.	3 136	6	● 78%	2 653	89%	5	• 37%
Plants live, nes	1 697	15	94%	1 019	9 39%	95	1 48%

Sugar-related products

Kenya is a sugar-producing country, but, according to the Agricultural Sector Development Programme, supply currently does not meet local demand, turning the country into a net importer of raw sugar cane. High production costs weigh on the country's competitiveness. Nevertheless, Kenya has successfully established itself as a regional supplier of sugar-based gums and confectionary.

Table 42: Kenya's exported products with potential: Sugar-related products

	Total X potential	Chin	a	EU		East Afri	ica
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential
Chewing gum containing sugar, except medicinal	175 763	3	B 1 00%	1 35	99%	164 634	83%
Sugar confectionery nes (incl. white chocolate), not containing coc	11 689	4	1 999	1 29	1 • 100%	6 740	O 4%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Other vegetable-based products

Kenya has potential in a number of other vegetable-based products, including sowing seeds, spices and natural ingredients into pharmaceuticals. A few of these products are fully transformed, like sauces and non-alcoholic beverages, thus fitting squarely into Kenya's strategy to reinforce its agro-processing industries.

³³ Hence, even though our methodology has identified sugar cane and cane molasses as feasible diversification opportunities, we have refrained from listing these products here, as they are currently imported and even higher production levels will hardly lead to exports.

Table 43: Kenya's exported products with potential: Other vegetable-based products

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)		X potential (US\$ thousand)	unused potential
Seeds, vegetable, nes for sowing	25 012	278	① 51%	8 200	69%	7 048	① 52%
Spices nes	12 769	26	99%	1 115	31%	8 457	● 63%
Other medicinal plants	8 913	279	O 10%	3 039	47%	309	95%
Sauces and preparations nes and mixed condiments and mixed s	3 796	10	100%	652	97%	1 863	O 25%
Vegetable saps and extracts nes	2 202	16	O 0%	321	O 19%	811	99%
Non-alcoholic beverages nes, excl. fruit or veg. juices of HS 20.09	2 183	10	100%	409	• 100%	836	O 18%
Natural gums, resins, gum-resins and balsam, except arabic gum	1 765	21	O 0%	370	44%	158	● 65%
Cloves	1 322	4	100%	217	92%	14	① 52%
Peppers of the genus Capsicum or of the genus Pimenta, fresh or	1 287	-	_	731	O 24%	7	94%

Challenges to realize additional exports in vegetable-based products:³⁴

- · Low-quality agricultural inputs,
- Low use (high costs) of fertilizers and machinery among small farmers,
- · Low absorption of modern technology,
- · Limited access to affordable credit,
- Land availability: viable area can be expanded with irrigation,
- Reduced agriculture extension service,
- Pre- and post-harvest crop losses (due to pests, and inadequate handling and storage facilities),
- · Low and declining soil fertility,
- Inappropriate legal and regulatory framework,
- Multiple taxes and incoherent land policy,
- Inadequate marketing.

³⁴ Agricultural Sector Development Plan and stakeholder interviews.

4.2.3. Cotton and textiles

Thanks to the African Growth and Opportunity Act (AGOA), Kenya's apparel exports to the United States have surged from US\$ 69 million in 2001 to US\$ 379 million in 2014. Today, the United States is Kenya's only important market. Yet, good demand and favourable tariff conditions turn the EU into an equally attractive destination for exports. Total unrealized export potentials of apparel to the EU augment to almost US\$ 139 million (knitted and not knitted together).

The interviewed experts from ACTIF confirmed that market diversification is important. They also suggested considering synthetic or mixed fabrics as possibilities to diversify Kenya's product offering. Results shown below indeed list synthetic fabrics as a feasible product for diversification, with good chances of export success in world markets. Currently, however, Kenya is a net importer of manmade staple fibres. To realize additional exports, a number of supply-side constraints should be addressed. Particularly problematic seems to be Kenya's lacking cost competitiveness. Kenya's apparel and textile strategy, therefore, identifies two niches that are less exposed to price competition: (i) Environmentally and socially conscious European and US consumers, and (ii) Smaller batch buyers that require premium products.

Sector info* National export priority? Yes Employment growth:* 26% (-5%) Female labour participation:* 26% (30%) Prominence of SMEs:* 63% (90%) Foreign direct investment:* 60% (2%)

* World Bank enterprise survey (2013). Sample size = 38 (10) firms of ISIC sector "Manufacture of textiles" ("Manufacture of wearing apparel; dressing and dyeing of fur").

19% (4%)

Share of exporting firms:*

Table 44: Kenya's exported products with potential: Cotton and textiles

	Total X potential	China	China			East Afr	rica
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)		X potential (US\$ thousand)	unused potential
Articles of apparel, accessories, not knit or crochet	157 979	357	• 80%	72 108	97%	8 990	5 ● 72%
Articles of apparel, accessories, knit or crochet	153 803	201	88%	66 792	98%	9 200	5 → 78%
Coconut, abaca, ramie and other vegetable fibers, raw, processe	20 566	4 236	O 0%	9 389	88%	1 110	5 ● 89%
Other made textile articles, sets, worn clothing, etc.	14 019	19	96%	2 362	93%	8 687	7 🕦 41%
Wig, eyebrow, eyelash, etc.	11 011	4	o 53%	1 118	98%	6 580	69%
Wool, not carded or combed	6 201	224	97%	327	● 73%	19	9 99%
Jute and other textile bast fibers (not flax, true hemp, ramie), raw,	5 319	123	O 0%	850	● 78%	237	1 • 94%
Twine, cordge and cable, with rubber or plastic	1 019	-	_	84	96%	722	2 ① 57%

Table 45: Kenya's related products for export diversification: Cotton and textiles

	China	1	EU		East Af	rica
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.
Cotton, not carded or combed	7 843 (-3%)	20% (0 pp)	485 (0%)	0 pp	96 (2%)	7% (-6 pp)
Yarn of jute or of other textile bast fibres of hd no. 53.03	50 (42%)	6% (-6 pp)	46 (-14%)	0 pp	4 (-16%)	1% (8 pp)
Cotton yarn (not sewing thread), 85% or more cotton, not for retail	3 778 (20%)	5% (-2 pp)	1 862 (-1%)	1 pp	37 (4%)	14% (-7 pp)
Carpets and textile floor covering, woven, not tufted or flocked	47 (21%)	11% (-1 pp)	1 377 (2%)	1 pp	43 (8%)	16% (4 pp)
Carpets and other textile floor covering, knotted	14 (18%)	14% (-4 pp)	523 (-5%)	3 pp	22 (-2%)	6% (1 pp)
Woven cotton fabrics, 85% or more cotton, weight less than 200 g/m ²	331 (-1%)	10% (-7 pp)	2 796 (-1%)	4 pp	381 (9%)	13% (11 pp)
Yarn of synth staple fibre, not for retail sale	152 (-3%)	5% (-2 pp)	1 308 (-0%)	1 pp	84 (8%)	11% (2 pp)
Cotton yarn (not sewing thread), less than 85% cotton, not for retail	206 (13%)	5% (-3 pp)	165 (4%)	1 pp	10 (2%)	17% (2 pp)
Yarn of artificial staple fibre, not for retail sale	35 (-14%)	5% (-2 pp)	475 (-3%)	1 pp	5 (-11%)	16% (-2 pp)
Woven fab of synthetic staple fibre (<85% of such fibre), mixed with cotton (wt)	65 (-8%)	11% (-2 pp)	418 (-2%)	1 pp	137 (5%)	16% (8 pp)
Woven fab of cotton, less than 85%, mixed with manmade fibre, weight >200	148 (3%)	7% (-2 pp)	553 (5%)	2 pp	30 (12%)	14% (6 pp)
Woven fab of synthetic staple fibre (>85% of such fibre), mixed with cotton (wt)	69 (-3%)	15% (-7 pp)	477 (2%)	3 pp	65 (2%)	13% (6 pp)
Fine or coarse animal hair, not carded or combed	88 (10%)	9% (-0 pp)	259 (-0%)	0 pp	6 (-0%)	0% (0 pp)
Woven cotton fabrics, 85% or more cotton, weight more than 200 g/m ²	443 (-0%)	10% (-10 pp)	1 451 (1%)	1 pp	103 (0%)	19% (-11 pp)
Terry towelling	7 (-2%)	12% (0 pp)	56 (-1%)	1 pp	4 (-4%)	14% (-1 pp)
Woven fabrics of jute or of other textile bast fibres of hd no. 53.03	2 (4%)	10% (-7 pp)	50 (-3%)	3 pp	11 (-16%)	1% (11 pp)
Woven fabrics of artificial staple fibres	73 (-8%)	12% (-0 pp)	647 (6%)	6 pp	71 (17%)	11% (12 pp)
Artificial filam yarn, not put up for resale	68 (-6%)	5% (0 pp)	334 (2%)	0 pp	3 (6%)	0% (1 pp)
Yarn of other vegetable textile fibres; paper yarn	3 (0%)	6% (-0 pp)	25 (1%)	1 pp	1 (2%)	3% (0 pp)
Wool, not carded or combed	2 496 (4%)	38% (0 pp)	839 (2%)	0 pp	10 (14%)	0% (-0 pp)
Wool and fine or coarse animal hair, carded or combed	122 (2%)	5% (-1 pp)	1 210 (4%)	1 pp	4 (-12%)	0% (0 pp)
Woven fabrics of synthetic staple fibres, nes	128 (-3%)	12% (0 pp)	861 (2%)	0 pp	90 (4%)	20% (-3 pp)
Silk yarn (other than yarn spun from silk waste)	3 (-1%)	6% (-1 pp)	161 (10%)	1 pp	0 (23%)	0% (-0 pp)
Woven pile and chenille fabrics	49 (-1%)	10% (-0 pp)	857 (-0%)	3 pp	37 (0%)	11% (10 pp)
Woven cotton fabrics, less than 85% cotton, mixed with manmade fibres, w	111 (-6%)	10% (-3 pp)	479 (0%)	2 pp	36 (6%)	21% (-3 pp)
Flax yarn	5 (11%)	5% (-1 pp)	218 (5%)	0 pp	0 (-17%)	0% (-0 pp)
Synthetic staple fibres, carded, combed	26 (-9%)	5% (-0 pp)	62 (0%)	0 pp	5 (-5%)	0% (0 pp)
Cotton waste (including yarn waste and garneted stock)	89 (20%)	10% (-5 pp)	261 (2%)	0 pp	2 (22%)	0% (2 pp)
Yarn of coarse animal hair or of horsehair	0 (31%)	6% (-3 pp)	3 (9%)	0 pp	0 (-45%)	1% (0 pp)
Flax, raw or processed, but not spun; flax tow and waste	302 (12%)	1% (0 pp)	189 (7%)	0 pp	2 (1%)	4% (0 pp)
True hemp, raw, processed, not spun; tow and waste of true hemp	0 (-35%)	6% (0 pp)	7 (5%)	0 pp	0 (2%)	0% (0 pp)

Challenges to realize additional exports in cotton and textiles: 35

• High cost of electricity,

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³⁵ Kenya Apparel and Textile Industry Diagnosis, Strategy and Action Plan, Kenya's Industrial Transformation Programme and stakeholder interviews.

- Old equipment,
- Labour productivity low compared to wage level,
- Slow and ineffective trade logistics,
- Lack of vocational and technical training opportunities,
- Lacking skills beyond basic apparel production.

4.2.4. Wood and wood products

Kenya's wood sector employs approximately 160,000 people along the entire value chain and is, therefore, of vital importance to the economy. The export potential analysis finds significant potential in export paper-based packing containers to the regional market. Other paper- and wood-based products have lower potentials. Thanks to the large demand in China and the EU, and Kenya's experience in wood processing and chemicals, the analysis indicates chemical wood pulp as an interesting diversification opportunity.

Interviewed experts considered furniture as a sector for future export growth. While wood marquetry indeed comes out as a product with significant export potential, the potential for wooden furniture is currently minimal (well below US\$ 1 million and, therefore, not shown in the table) due to the lack of international competitiveness. The Ministry of Industrialization and Enterprise Development recently commissioned a study to define the industry's challenges and possible interventions. To get better access to timber inputs, the document recommends among others the move to sustainable forestation along with the relaxation of import constraints in the form of duties and licenses.

Challenges to realize additional exports in furniture: 36

- Constrained input supply: forestry sector unable to meet local demand for timber,
- · Limited labour skills and poor production facilities,
- Limited access to markets,
- Limited engagement and collaboration between different stakeholders across the value chain.

Sector info*

National export priority? No

Employment growth:* 25% (8%/-1%)

Female labour participation:* 53% (16%/17%)

Prominence of SMEs:* 86% (71%/87%)

Foreign direct investment:* 18% (9%/1%)

Share of exporting firms:* 3% (9%/11%)

^{*} World Bank enterprise survey (2013). Sample size = seven (7/15) firms of ISIC sector "Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials" ("Manufacture of paper and paper products"/"Manufacture of furniture; manufacturing n.e.c.").

³⁶ Furniture Industry in Kenya – Situational Analysis and Strategy.

Table 46: Kenya's exported products with potential: Wood and wood products

	Total X potential	China	ì	EU		East Afr	ica
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
	,	thousand)	potential	thousand)	potential	thousand)	potential
Packing containers, of paper, paperboard, cellulose wadding, we	31 385	39	99%	3 88	5 ● 99%	20 216	O 26%
Postcards, printed or illustrated; printed greeting cards	8 581	4	100%	3 56	100%	2 445	8%
Printed books, brochures, leaflets and similar printed matter	6 224	48	100%	1 97:	2 • 89%	2 109	39%
Printed matter nes, including printed pictures and photographs	5 208	74	98%	1 043	97%	2 317	7%
Wood in the rough	3 792	969	63%	189	5 ● 97%	21	9 0%
Unused stamps; cheque forms, banknotes, bond certificates, etc.	3 585	77	100%	90	5 	1 554	75%
(4408 & 4412) Plywood, veneered panels and similar laminated	3 017	36	93%	859	9 • 100%	718	11%
Paper or paperboard labels of all kinds	2 519	3	99%	30	7 • 98%	1 334	15%
Wood charcoal (including shell or nut charcoal)	2 349	39	• 100%	1 16	7 • 100%	58	98%
Wood marquetry and inlaid wood; caskets and cases or cuttery of	2 149	(0%	1 170	69%	58	48%
Basketwork, wickerwork and other articles made from plaiting mate	1 196	,	O 18%	71	1 • 88%	11	4 4%

Table 47: Kenya's related products for export diversification: Wood and wood products

	China		EU		East Afric	East Africa		
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.		
Fuel wood; wood in chips or particles; sawdust and wood waste and scrap	1 066 (15%)	0% (0 pp)	3 506 (9%)	0 pp	20 (0%)	0% (1 pp)		
Wood sawn and chipped lengthwise, sliced or peeled	5 597 (16%)	0% (0 pp)	11 056 (1%)	0 pp	210 (2%)	1% (0 pp)		
Chemical wood pulp, soda or sulphate, other than dissolving grades	7 747 (7%)	0% (0 pp)	11 012 (-2%)	0 pp	71 (16%)	2% (0 pp)		
Articles of natural cork	10 (-6%)	8% (0 pp)	393 (1%)	0 pp	12 (-2%)	0% (0 pp)		
Agglomerated cork and articles of agglomerated cork	23 (-2%)	8% (-0 pp)	471 (0%)	0 pp	5 (1%)	2% (1 pp)		
Pulps of other fibrous cellulosic material	81 (4%)	0% (0 pp)	422 (-1%)	0 pp	6 (-15%)	0% (0 pp)		
Hoopwood; split poles; piles; pickets; stakes; chipwood	6 (-0%)	8% (-6 pp)	127 (4%)	0 pp	12 (22%)	2% (-0 pp)		
Wood wool; wood flour	3 (6%)	8% (-5 pp)	40 (8%)	0 pp	1 (-10%)	2% (3 pp)		
Natural cork roughly squared or in rectangular blocks or strips	2 (5%)	8% (0 pp)	33 (15%)	0 pp	0 (-33%)	0% (0 pp)		
Natural cork, waste cork; crushed, granulated or ground cork	8 (6%)	1% (0 pp)	148 (6%)	0 pp	0 (62%)	0% (0 pp)		

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

4.2.5. Chemicals and plastics

Kenya has good potential to export a number of chemical and plastic products. For several cosmetic ingredients or products (soap, washing liquids and petroleum jelly), the regional market offers substantial opportunities. While the potential to export beauty and hair preparations as well as washing agents is mostly exhausted, untapped opportunities remain, notably for exports of petroleum jelly to Rwanda and to the DRC - two markets that are hardly served by Kenyan exporters at the moment. High export potential also exists for plastic packing goods. While the East African market seems saturated (Burundi being an exception), EU countries may be targeted for market diversification.

World Bank data suggests that chemicals have received considerable foreign investment (see box), for instance, from Germany (Henkel, Beiersdorf). Employment growth between 2011 and 2013 also indicates that the sector offers opportunities for job creation. These factors may enable Kenya to further diversify its export offer towards fertilizers, for instance, which have good regional export potential thanks to growing imports (currently standing at US\$ 884 million).

Sector info*

National export priority? No Employment growth:*

21% (0%)

Female labour participation:*

31% (6%)

Prominence of SMEs:*

62% (64%)

Foreign direct investment:*

56% (4%)

Share of exporting firms:*

13% (12%)

^{*} World Bank enterprise survey (2013). Sample size = 37 (11) firms of ISIC sector "Manufacture of chemicals and chemical products" ("Manufacture of rubber and plastic products").

Table 48: Kenya's exported products with potential: Chemicals and plastics

	Total X potential	China		EU		East Africa		
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential	
Soap; organic surface-active preparations for soap use	88 144	181	100%	3 271	99%	72 230	1 46%	
Plastic packing goods or closures stoppers, lids, caps, closures, pl	63 374	214	98%	13 083	97%	32 401	O 9%	
Footwear nes, outer soles and uppers of rubber or plastics	47 417	6	100%	5 169	99%	33 561	58 %	
Petroleum jelly; mineral waxes and similar products	30 209	66	100%	465	85%	26 025	87%	
Organic surface-active washing and cleaning products and prepa	19 655	93	99%	2 606	99%	12 493	O 13%	
Tableware, kitchenware, toiletery articles, of plastic	9 310	18	9 0%	2 118	95%	2 427	O 5%	
Pharmaceutical products	6 863	189	99%	1 873	90%	1 402	O 0%	
Other furniture and parts thereof	6 722	16	95%	1 139	96%	3 438	O 16%	
Plates, sheets, film, foil and strip, of plastics, nes	4 616	132	100%	699	97%	2 271	O 4%	
Beauty, make-up and skin-care preparations; sunscreens, manicu	3 532	105	100%	526	92%	1 043	O 10%	
Mixtures ofnitrogen, phosphorous or potassium fertilizers	3 314	45	100%	83	97%	1 905	● 66%	
Vegetable tanning extracts; tannins and their salts	2 339	140	100%	377	1 44%	252	100%	
Organic surface-active agents, washing and clean preparations, nes	2 283	47	100%	263	99%	1 040	O 33%	
Hair preparations	2 034	7	100%	359	94%	758	O 15%	
Insecticides, fungicides, herbicides packaged for retail sale	1 893	27	100%	259	86%	806	O 2%	
Essential oils; resinoids; terpenic by-products, etc.	1 818	26	98%	653	60%	82	● 70%	
Saturated acyclic monocarboxylic acids and their derivatives	1 766	21	100%	312	100%	601	O 7%	
Baths, shower-baths, wash-basins, bidet etc. of plastic	1 474	8	100%	293	100%	701	O 16%	
Colouring matter of vegetable or animal origin	1 448	27	100%	540	6 6%	34	● 69%	
Polyacetal, of polyether, epoxide resin, polycarbonate, etc., in pri	1 241	65	100%	403	100%	136	O 22%	
Other plates, sheets, film, foil, tape, strip of plastics etc.	1 151	27	100%	307	88%	323	O 1%	

Table 49: Kenya's related products for export diversification: Chemicals and plastics

	China	1	EU		East Afri	ica
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Natural rubber, balata, gutta-percha, etc.	7 097 (-4%)	7% (0 pp)	5 362 (-8%)	0 pp	204 (-10%)	0% (0 pp)
Mineral or chemical fertilizers, phosphatic	14 (-9%)	1% (0 pp)	418 (-0%)	0 pp	35 (10%)	0% (-0 pp)
Mixtures of nitrogen, phosphorous or potassium fertilizers	838 (3%)	50% (0 pp)	4 687 (6%)	2 pp	646 (4%)	1% (-0 pp)
Compounded rubber, unvulcanised, in primary forms	3 664 (-0%)	8% (-8 pp)	3 696 (3%)	0 pp	28 (34%)	6% (-4 pp)
Matches o/t pyrotechnic articles of hd no. 36.04	0 (-37%)	6% (-4 pp)	60 (-1%)	2 pp	45 (-1%)	9% (7 pp)
Acyclic alcohols and their derivatives	12 151 (1%)	6% (-2 pp)	9 440 (4%)	2 pp	185 (5%)	1% (-0 pp)
Mineral or chemical fertilizers, nitrogenous	26 (15%)	4% (0 pp)	7 562 (6%)	1 pp	884 (9%)	1% (-0 pp)
Binders for foundry moulds or cores; chemical products and residuals nes	940 (17%)	12% (-12 pp)	3 534 (5%)	1 pp	140 (5%)	8% (-0 pp)
Rosin and resin acids, and derivatives; rosin spirit and oils; run gums	37 (14%)	10% (-6 pp)	1 093 (0%)	3 pp	16 (-6%)	0% (0 pp)
Articles of apparel and clothing accessories of vulcanised rubber	90 (15%)	18% (-16 pp)	2 252 (3%)	2 pp	87 (5%)	10% (3 pp)
Vegetable alkaloids and their salts, ethers, esters and other derivatives	30 (10%)	4% (-1 pp)	580 (3%)	0 pp	22 (12%)	1% (0 pp)
Turpentine oils; crude dipentene; pine oil, etc.	5 (38%)	7% (-2 pp)	76 (3%)	2 pp	7 (4%)	0% (-0 pp)
Oxygen-function amino-compounds	349 (1%)	7% (-0 pp)	7 374 (5%)	5 pp	82 (7%)	1% (0 pp)
Vegetable tanning extracts; tannins and their salts	34 (-7%)	6% (-0 pp)	97 (3%)	1 pp	3 (4%)	4% (0 pp)
Cyclic alcohols and their derivatives	274 (13%)	6% (-0 pp)	554 (6%)	4 pp	7 (4%)	0% (-0 pp)
Heterocyclic compounds with oxygen hetero-atom(s) only	294 (12%)	6% (-0 pp)	2 585 (-5%)	1 pp	24 (7%)	0% (0 pp)
Heterocyclic compounds with nitrogen hetero-atom; nucleic acids and their derivatives	2 228 (-8%)	9% (0 pp)	21 407 (4%)	0 pp	120 (2%)	2% (0 pp)
Amine-function compounds	658 (-5%)	7% (0 pp)	4 539 (1%)	2 pp	29 (-2%)	1% (-0 pp)
Aldehyde; cyclic polymer of aldehyde; paraformaldehyde	145 (5%)	6% (0 pp)	807 (5%)	1 pp	13 (5%)	4% (0 pp)

4.2.6. Construction materials

Kenya has made use of its high potential to export metal-based products to regional markets. Carboys, bottles and other glass containers are heavily exported to Uganda; smaller, but unrealized potentials also exist in the DRC, Rwanda and Zambia, as well as in the United States and France – two markets that have not been served yet.

Flat-rolled products of iron have been exported to Uganda and other East African markets so far, leaving limited scope for export expansion. Unrealized potential worth US\$ 2.6 million still exists in the United Republic of Tanzania – a market that is less served so far despite strong demand. Attractive markets outside the region include India, the United States and Russia, all huge importers of flat-rolled iron. Market diversification will also become necessary to realize further exports of aluminium household articles: the regional market is saturated, but the United States could be an interesting new

Sector info*

National export priority? Yes

Employment growth: 1% (3%)

Female labour participation: 13% (12%)

Prominence of SMEs: 45% (75%)

Foreign ownership share: 11% (13%)

Share of exporting firms: 13% (7%)

* World Bank enterprise survey (2015). Sample size = 11 (16) firms of ISIC sector "Manufacture of basic metals" ("Manufacture of fabricated metal products, except machinery and equipment").

market, promising additional export revenues of US\$ 4.4 million. Competitors in this market would be China and Thailand.

According to the interviewees, the local construction boom will support the further development of the sector. In line with that, Kenya's Vision 2030 aims to develop the local steel industry in order to become independent of imported raw materials. A first step is a South Korean investment for the construction of a steel mill. The export potential assessment methodology has also identified steel-based products as feasible options for export diversification. Besides the local market, the EU imports, for instance, angles and shapes worth US\$ 5.7 million.

Table 50: Kenya's exported products with potential: Construction materials

	Total X potential	China	China			East Afri	ca
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Carboy, bottle and other container of glass	37 512	80	99%	3 64	0 • 100%	24 773	O 22%
Flat-rolled prod. of iron or non-al/s wd>/=600mm, clad, plated or c	37 481	99	100%	4 08	4 ● 99%	20 995	O 21%
Aluminum table, kitchen, household articles	34 432	26	94%	4 72	1 🍑 77%	20 626	O 6%
Aluminum plates, sheets and strip, of a thickness exceeding 0.2mm	9 844	73	97%	1 43	5 • 100%	4 511	O 19%
Aluminum bars, rods and profiles	3 139	12	100%	34	0 • 100%	2 069	O 8%
Unwrought lead	1 844	13	45%	77	7 • 97%	0	100%
Iron and steel reservoirs, tanks, vats (capacity > 300 l)	1 697	9	100%	11:	2 • 99%	1 046	O 11%
Nails, staples and similar articles, iron and steel	1 332	2	100%	12	7 • 100%	706	O 3%
Structures (rods, angle, plates) of iron and steel nes	1 310	7	97%	9.	4 ● 97%	772	O 5%

Table 51: Kenya's related products for export diversification: Construction materials

	China		EU		East Africa	
Product	Market imports (US\$	Applied tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff
	million) and growth	and tariff adv.	million) and growth	adv.*	million) and growth	and tariff adv.
Ferro-alloys	3 522 (1%)	0% (0 pp)	10 750 (-1%)	0 pp	210 (12%)	1% (-1 pp)
Unrefined copper; copper anodes for electrolytic refining	3 666 (9%)	0% (0 pp)	2 831 (-0%)	0 pp	5 (-31%)	2% (0 pp)
Bars and rods of iron/non-al/s, nfw than forged, hr, hd,/hot-extruded	136 (-8%)	3% (-1 pp)	5 866 (1%)	0 pp	559 (5%)	15% (4 pp)
Nickel matte, nickel oxide sinters	913 (-4%)	0% (0 pp)	1 278 (-5%)	0 pp	44 (-24%)	0% (0 pp)
Refined copper and copper alloys, unwrought	24 171 (1%)	0% (0 pp)	15 622 (-3%)	0 pp	131 (5%)	0% (0 pp)
Unwrought tin	346 (-8%)	3% (-2 pp)	1 420 (3%)	0 pp	32 (-5%)	0% (0 pp)
Unwrought aluminium	821 (-1%)	3% (-0 pp)	20 314 (1%)	1 pp	149 (-3%)	0% (0 pp)
Pig iron and spiegeleisen in pigs	285 (-33%)	1% (0 pp)	1 779 (2%)	1 pp	2 (4%)	2% (-1 pp)
Angles, shapes and sections of iron or non-alloy steel	191 (3%)	6% (-0 pp)	5 704 (2%)	0 pp	264 (2%)	3% (0 pp)
Unwrought nickel	2 290 (-12%)	1% (0 pp)	6 656 (3%)	0 pp	24 (-12%)	0% (0 pp)
Cobalt mattes and other products and articles of cobalt (incl. waste and scrap)	595 (0%)	3% (-0 pp)	787 (-0%)	0 pp	6 (40%)	0% (0 pp)

Worked monumental or building stone and art; mosaic cube, granules	89 (-6%)	19% (-1 pp)	2 422 (-0%)	0 pp	115 (8%)	19% (4 pp)
Iron and non-alloy steel in ingots or other primary forms, nes	25 (12%)	2% (0 pp)	246 (11%)	0 pp	9 (17%)	3% (-1 pp)
Ferrous prod. obt by dir reductn of iron ore (minimum pure iron of 99.9)	294 (-24%)	1% (-0 pp)	755 (0%)	0 pp	4 (-24%)	7% (0 pp)
Antimony and articles thereof, including waste and scrap	2 (-21%)	4% (-0 pp)	126 (-3%)	4 pp	2 (-2%)	0% (0 pp)
Copper mattes; cement copper (precipitated copper)	252 (-17%)	1% (-0 pp)	166 (-17%)	0 pp	1 (-53%)	0% (0 pp)
Lead plates, sheets, strip and foil; lead powders and flakes	5 (-0%)	6% (-0 pp)	200 (4%)	0 pp	10 (-19%)	6% (1 pp)
Glass env, open and pts, for electric lamps, cathode-ray tubes, etc.	93 (-8%)	9% (-2 pp)	81 (-4%)	1 pp	5 (-1%)	1% (1 pp)
Bars and rods, hot-rolled, in irregularly wound coils, of other alloy, steel	174 (5%)	3% (0 pp)	1 351 (1%)	0 pp	46 (40%)	1% (2 pp)

4.2.7. Miscellaneous manufactured articles

Similar to metal-based products, manufactured articles are mostly sold to neighbouring countries in East Africa. The United States, however, could be an interesting option for market diversification of ballpoint pen exports. The huge demand of US\$ 582 million is currently satisfied by imports from China, Japan and the United Mexican States.

The situation of insulated wire and cable is different: the high potentials in the regional market have not yet been exhausted. Current exports to Uganda of US\$ 2.4 million do not even account for half of Kenya's potential to that market. In the United Republic of Tanzania, Kenya has so far only exhausted 17% of the existing US\$ 3.8 million potential.

Challenges to realize additional exports in manufactured articles: 37

- · Limited talent pool for engineers,
- High cost of capital is discouraging investment.

Sector info*

National export priority? Yes

Employment growth: -1%

Female labour participation: 9%

Prominence of SMEs: 70%

Foreign ownership share: 14%

Share of exporting firms: 13%

58

^{*} World Bank enterprise survey (2015). Sample size = 10 firms of ISIC sector "Manufacture of electrical machinery and apparatus n.e.c.".

³⁷ Kenya Industrial Transformation Programme.

Table 52: Kenya's exported products with potential: Miscellaneous manufactured articles

	Total X potential	Chin	1	EU		East Africa		
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential	
Ballpoint pencil; markers and writing instr. (other than HS 96.09)	22 155	40	0 • 100%	3 432	• 100%	12 160	3 0%	
Insulated wire or cable	18 236	49	100%	731	99%	13 991	● 64%	
Articles for funfair, table or parlour games and auto bowling alley e	6 585	1:	92%	2 868	58 %	135	→ 77%	
Mattress supports; mattresses, quilts, etc	6 518	2.	100%	921	100%	3 428	O 12%	
Prefabricated buildings	2 648		0 100%	220	100%	1 511	37 %	
Imitation jewellery	2 555		57%	1 090	3 5%	141	● 62%	
Fishing rods, fish-hooks; fishing nets; decoy birds	2 233		0 100%	977	60 %	111	● 66%	
Machinery part (HS 84.25 to 84.30)	1 870	39	0 100%	229	68 %	667	o 58%	
Automatic data processing machines; optical reader, etc	1 517		95%	708	→ 72%	45	O 2%	
Electro-medical apparatus (electro-cardiographs, infra-red ray ap	1 222	4	98%	507	80%	150	O 11%	
Telephone sets (excl. line telephone sets) and other voice and im	1 203		0%	415	O 11%	60	O 0%	
Lamps and lighting fittings nes; signs, nameplates illuminated	1 199	;	100%	306	98%	448	0 9%	
Electric motors and generators (excluding generating sets)	1 105	14	100%	267	o 60%	360	o 59%	

4.3. Mozambique's sectors with export potential

Mozambique's by far greatest export potentials lie in the metal sector. To the EU alone, US\$ 1.4 billion exports could be realized, with the major markets being Belgium and Italy. Unwrought aluminium accounts for 99% of this potential, much of which is already used. Mozambique's challenge is, therefore, export diversification, for instance, into agro-based products. Thanks to strong bilateral trade linkages, the EU is the most attractive target market for most other sectors with potential as well. Exceptions are wood and textile (products) that are in very high demand in China.

All sectors Excl. metals 0.5 1.8 **US**\$ billions **US**\$ billions 0.45 1.6 0.4 1.4 0.35 1.2 0.3 1 0.25 8.0 0.2 0.6 0.15 0.4 0.1 0.2 0.05 Taxilles and textile ations Animal of vestelable late Fodued hat Indella Food benefite the later Live aimate aima products Teddle addedle addes Arifind of Medicials the safe Foduled Rats Imbellats wood and wood products wood and wood products Vegerale products Leafter and leafter products Live aims aims brouds Leafter and leafter products Vegetable products Food Bellette Idas ■ China ■ EU ■ East Africa ■ RoW ■ China ■ EU ■ East Africa ■ RoW

Figure 8: Mozambique's high potential sectors

Note: The graphs show sectors with a total export potential of more than US\$ 5 million.

4.3.1. Fisheries

The fishery sector traditionally plays an important role in Mozambique's economy. At the beginning of the 2000s, frozen shrimps and prawns alone still accounted for more than 10% of total exports, but, due to the steep decline in catches and the growing importance of other sectors, this share has decreased to less than 1%. Backed by a strong demand in some European countries (notably Spain and France), export potentials are still large despite Mozambique's declining comparative advantage. Realizing these potentials requires combating stock depletion and strengthening recent efforts to engage in aquaculture. In response to the reduction of shrimp stocks, companies have started to widen their product range. Rock lobster in particular seems to be a viable alternative. Even though demand for rock lobster does not match the demand for shrimp, significant unused potentials exist for exports to Belgium, Spain or France. Diversification opportunities comprise value-added fishery products, like fish flour (in high demand in China and the EU), fish fillets and canned tuna (in high and growing demand in the EU). Other livestock is not yet exported on a continuous basis, but interviewed experts indicated that poultry should have export potential. Mozambique indeed counts more than 22 million chickens and already produces 23,129 tons of meat, according to FAO data.

Challenges to realize additional exports in fishery products:³⁸

- Uncontrolled operations have led to a depletion of shrimp stocks,
- Small operators lack funding to invest in new equipment,
- Lack of extension, training and technical support,
- Insufficient production of fry hinders expansion of aquaculture.

Table 53: Mozambique's exported products with potential: Fisheries

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)			inused ootential
Frozen shrimps and prawns	108 040	3 424	3 1%	97 509	● 70%	892 (5%
Rock lobster and other sea crawfish, frozen in shell or not, incl. boi	19 310	402	3 9%	16 752	94%	891 (0%
Other crustaceans, frozen	2 766	117	100%	2 484	84%	100 🤇	3%
Octopus, frozen, dried, salted or in brine	1 718	40	100%	1 594	● 74%	1 (51%
Molluscs and other aquatic invertebrates	1 528	161	68 %	1 267	99%	2 (12%
Lobsters nes, frozen, in shell or not, including boiled in shell	1 337	94	O 0%	989	100%	20 🤇	1%
Frozen Dogfish and other sharks	1 317	60	100%	1 209	● 69%	10 (100%

Note: The table lists products with a total export potential of more than US\$ 1 million.

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³⁸ International Growth Centre (ICG), 2014: An Enterprise Map of Mozambique.

Table 54: Mozambique's related products for export diversification: Fisheries

	China		EU		East Af	rica
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Flour, meal and pellet of fish, crust, mol./other aqua invert., unfit for human consumption	1 551 (-1%)	1 pp	1 020 (-2%)	0 pp	13 (-21%)	0% (-0 pp)
Skipjack or stripe-bellied bonito, frozen, excl. heading no. 03.04, livers and roes	64 (36%)	23 pp	78 (6%)	3 pp	2 (34%)	24% (0 pp)
Tunas, skipjack and Atl. bonito, prepared or preserved, whole or in pieces, excl. minced	14 (13%)	1 pp	3 190 (9%)	3 pp	99 (9%)	11% (7 pp)
Lobsters nes, not frozen, in shell or not, including boiled in shell	75 (55%)	7 pp	296 (2%)	8 pp	0 (18%)	13% (3 pp)
Frozen tuna, whole	6 (21%)	11 pp	57 (8%)	2 pp	5 (3%)	21% (-13 pp)
Tunas, yellowfin, frozen, excluding heading no. 03.04, livers and roes	12 (13%)	18 pp	318 (5%)	1 pp	6 (20%)	23% (-0 pp)
Lobsters nes, frozen, in shell or not, incl. boiled in shell	13 (18%)	8 pp	101 (3%)	9 pp	0 (-8%)	10% (1 pp)
Rock lobster and other sea crawfish, frozen in shell or not, incl. boiled in shell	8 (18%)	9 pp	183 (-2%)	4 pp	2 (32%)	1% (0 pp)
Fish fillets, frozen	87 (5%)	5 pp	6 192 (3%)	5 pp	23 (4%)	7% (2 pp)
Fish fillets and pieces, fresh or chilled	3 (-18%)	10 pp	2 536 (5%)	3 pp	12 (14%)	4% (-1 pp)
Sole, frozen, excluding heading no. 03.04, livers and roes	12 (-6%)	4 pp	60 (-2%)	0 pp	2 (-1%)	1% (0 pp)
Crabs, frozen, in shell or not, including boiled in shell	186 (9%)	9 pp	171 (5%)	2 pp	2 (15%)	1% (0 pp)
Lobster, prepared or preserved	4 (83%)	8 pp	17 (-10%)	6 pp	0 (-52%)	5% (4 pp)
Fish meat, frozen	56 (16%)	5 pp	742 (2%)	3 pp	17 (-8%)	4% (0 pp)
Other frozen fish, whole	1 990 (-0%)	8 pp	1 046 (-1%)	2 pp	160 (18%)	9% (4 pp)
Fish fats and oils and their fractions, excl. liver, refined, not chemically modified	87 (4%)	5 pp	596 (7%)	2 pp	2 (7%)	2% (-0 pp)
Sardines, sardinella and brisling or sprats prep. or preserved, whole or pieces ex minced	1 (10%)	1 pp	314 (2%)	1 pp	197 (3%)	5% (2 pp)
Ornamental fish	6 (31%)	3 pp	158 (-3%)	2 pp	3 (5%)	1% (-0 pp)
Frozen hake	22 (20%)	10 pp	231 (-4%)	4 pp	29 (-5%)	1% (0 pp)
Rock lobster and other sea crawfish, not fz, in shell or not, incl. boiled in shell	220 (42%)	3 pp	30 (-1%)	2 pp	0 (-2%)	1% (0 pp)
Crabs, not frozen, in shell or not, including boiled in shell	230 (23%)	6 pp	87 (0%)	0 pp	0 (52%)	7% (0 pp)
Tunas, albacore or longfinned, frozen, excl. heading no. 03.04, livers and roes	6 (1%)	11 pp	62 (4%)	7 pp	7 (4%)	10% (0 pp)
Fresh or chilled tuna, whole	2 (24%)	12 pp	37 (-3%)	0 pp	0 (50%)	8% (0 pp)
Frozen turbot and other flatfish, whole	135 (27%)	10 pp	31 (4%)	1 pp	1 (-0%)	3% (4 pp)
Salmonidae nes, fresh or chilled, excl. heading no. 03.04, livers and roes	2 (51%)	12 pp	69 (2%)	0 pp	2 (-4%)	1% (0 pp)
Livers and roes, dried, smoked, salted or in brine	7 (0%)	8 pp	46 (-12%)	2 pp	0 (-11%)	2% (0 pp)
Halibut, frozen, excluding heading no. 03.04, livers and roes	124 (2%)	8 pp	199 (4%)	2 pp	0 (-10%)	0% (0 pp)
Frozen eels	4 (-24%)	4 pp	16 (-9%)	0 pp	0 (-24%)	0% (0 pp)
Cuttlefish and squid, shelled or not, live, fresh or chilled	4 (-19%)	6 pp	226 (3%)	0 pp	0 (19%)	5% (-1 pp)
Frozen livers and roes	76 (6%)	10 pp	77 (6%)	2 pp	1 (-24%)	1% (0 pp)
Snails(excl. sea), shelled or not, live, fresh, chd, fz, dried, salted or in brine	8 (-43%)	5 pp	48 (8%)	0 pp	0 (-11%)	9% (0 pp)
Crab, prepared or preserved	10 (-1%)	8 pp	119 (2%)	2 pp	6 (-1%)	0% (0 pp)
Eels, live	14 (10%)	3 pp	73 (-4%)	0 pp	0	0% (0 pp)
Tunas, yellowfin, fresh or chilled, excl. heading no. 03.04, livers and roes	0 (25%)	5 pp	61 (11%)	5 pp	0 (111%)	15% (0 pp)
Fish-liver oils and their fractions, refined or not, but not chemically modified	5 (2%)	4 pp	51 (6%)	0 pp	0 (8%)	1% (0 pp)
Other crustaceans, not frozen	15 (52%)	0 pp	172 (2%)	0 pp	1 (52%)	6% (-0 pp)
Frozen haddock	107 (4%)	12 pp	64 (5%)	1 pp	0 (-36%)	8% (0 pp)
Halibut, fresh or chilled, excluding heading no. 03.04, livers and roes	0 (52%)	11 pp	56 (3%)	1 pp	0 (27%)	10% (0 pp)

Mozambique also has small potentials to export reptile and bovine hides and leather. The best opportunities exist for reptile leather exports to Italy, where a currently unexploited potential of US\$ 1.2 million may be realized.

4.3.2. Vegetable-based products

Opportunities in agriculture appear evident and attractive and a number of sectors with high market potential (e.g. rice and nuts) have been selected as "priority" by the interviewed stakeholders. The system of outgrowers with a larger unit subcontracting and providing technical assistance to smaller units surrounding it seems to be appropriate for the conditions in Mozambique and has been expanding successfully over the last few years. Land ownership structure, finance availability and logistics and infrastructure, however, are outstanding challenges in this sector.

Fruits and vegetables

Mozambique's banana production is on the rise and reached 450,000 tons in 2013. Current exports go to South Africa and the Middle East (the Islamic Republic of Iran, Saudi Arabia and the State of Kuwait), but the growth potential of these markets is limited. Mozambique already satisfies more than 90% of South Africa's demand for bananas. Iran's imports of bananas have declined in quantity terms (-10%) and stagnated in value terms (+1%) over the past five years. With Mozambique expanding its

Sector info* Employment growth:* 19% Female labour participation:* 17% Prominence of SMEs:* 90% Foreign direct investment:* 35% Share of exporting firms:* 2% * World Bank enterprise survey (2007). Sample size = 88 firms of ISIC sector "Manufacture of food and beverages".

supply capacity and further developing its comparative advantage, the identification of new markets becomes a necessary condition for future export growth. The EU offers huge untapped potentials. Market size is big and, like Kenya, Mozambique enjoys a tariff advantage over South or Latin American competitors.

Other fruits and vegetables that are already produced in the country (pineapples, mangoes and papayas, cassava and sweet potatoes) may be exported as well. China is a big market for cassava (emphasized during stakeholder interviews), and EU consumers have an increasing appetite for mangoes.

Challenges to realize additional exports in fruits and vegetables: ³⁹: Prevalence of fruit flies, limited storage and processing facilities lead to high post-harvest losses.

Table 55: Mozambique's exported products with potential: Fruits and vegetables

Product I	Total X potential	China		EU		East Afr	ica
	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Bananas and plantains, fresh or dried	185 605	1 159	98%	178 133	100%	3 210	0 1%
Vegetables nes, fresh or chilled	2 483	4	100%	2 007	6 9%	193	17%

Note: The table lists products with a total export potential of more than US\$ 1 million.

³⁹ Revised DTIS for Mozambique (2015).

Table 56: Mozambique's related products for export diversification: Fruits and vegetables

	China		EU		East Afr	ica
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Pineapples, fresh or dried	22 (40%)	1 pp	1 099 (1%)	0 pp	1 (7%)	2% (3 pp)
Pineapples nes, o/w prep. or preserved, sugared, sweetened, spirited or not	12 (20%)	15 pp	449 (2%)	12 pp	12 (-2%)	10% (14 pp)
Manioc (cassava) starch	741 (19%)	0 pp	36 (5%)	9 pp	10 (-2%)	1% (4 pp)
Vegetable products nes	64 (38%)	2 pp	209 (15%)	0 pp	42 (-3%)	4% (-0 pp)
Manioc (cassava), fresh or dried, whether or not sliced or pelleted	1 589 (12%)	0 pp	34 (3%)	1 pp	1 (-1%)	19% (-16 pp)
Pineapple juice, unfermented	3 (29%)	10 pp	436 (-5%)	7 pp	6 (3%)	20% (1 pp)
Papaws (papayas), fresh	1 (9%)	6 pp	84 (6%)	0 pp	1 (10%)	1% (1 pp)
Grapes, dried	32 (10%)	10 pp	946 (2%)	1 pp	3 (-8%)	19% (3 pp)
Guavas, mangoes and mangosteens, fresh or dried	139 (13%)	0 pp	672 (11%)	0 pp	10 (-4%)	27% (2 pp)
Avocados, fresh or dried	3 (329%)	25 pp	824 (12%)	0 pp	5 (-4%)	1% (0 pp)
Arrowroot, salep (yams), etc.	3 (14%)	1 pp	58 (4%)	2 pp	1 (4%)	13% (-9 pp)
Flour and meal of sago and of roots or tubers with high starch or inulin content	4 (13%)	1 pp	9 (16%)	2 pp	1 (15%)	13% (-7 pp)
Melons, fresh, other than watermelons	2 (-54%)	0 pp	909 (4%)	2 pp	1 (2%)	2% (0 pp)
Coconuts, desiccated	8 (36%)	0 pp	234 (16%)	0 pp	12 (18%)	8% (-0 pp)
Cherries, fresh	265 (50%)	2 pp	438 (4%)	1 pp	1 (3%)	10% (-0 pp)
Grapefruit juice, unfermented	4 (37%)	15 pp	210 (0%)	4 pp	3 (1%)	12% (-9 pp)
Palm hearts nes, o/w prep. or preserved, whether or not sugared, sweet or spirited	0 (78%)	2 pp	52 (1%)	0 pp	0 (-5%)	14% (9 pp)
Swedes, mangold, fodder root, hay, clover, sainfoin, forag kale, etc.	194 (41%)	7 pp	123 (9%)	0 pp	3 (4%)	2% (-0 pp)
Asparagus, fresh or chilled	0 (-42%)	5 pp	383 (6%)	1 pp	1 (-2%)	1% (13 pp)
Sweet potatoes, fresh or dried, whether or not sliced or pelleted	0 (7%)	3 pp	119 (18%)	2 pp	1 (11%)	7% (-1 pp)
Coconuts, not desiccated	62 (30%)	0 pp	43 (13%)	0 pp	1 (28%)	17% (2 pp)
Dates, fresh or dried	4 (24%)	15 pp	278 (6%)	3 pp	8 (3%)	9% (5 pp)
Cranberries, bilberries and other fruits of the genus vaccinium, fresh	14 (69%)	1 pp	482 (17%)	1 pp	0 (4%)	4% (-0 pp)
Potatoes, frozen	0 (-9%)	13 pp	173 (-2%)	0 pp	13 (0%)	5% (-3 pp)
Figs, fresh or dried	3 (61%)	30 pp	228 (6%)	0 pp	1 (2%)	22% (-5 pp)
Apricots, dried	1 (15%)	25 pp	190 (3%)	0 pp	1 (-5%)	3% (8 pp)
Aubergines (eggplants), fresh or chilled	0 (0%)	13 pp	272 (3%)	0 pp	0 (9%)	5% (-3 pp)
Brussels sprouts, fresh or chilled	0	13 pp	80 (4%)	0 pp	0 (-9%)	9% (-1 pp)
Tapioca subst. prep. from starch in flake, grain, pearl, siftg or sim forms	6 (24%)	8 pp	15 (3%)	10 pp	1 (-4%)	1% (-0 pp)
Peel of citrus fruit or melons (watermelons) fresh, frz, dried or prov. preserved	3 (23%)	23 pp	49 (14%)	0 pp	0 (4%)	8% (-0 pp)
Copra	0 (-25%)	3 pp	3 (-35%)	0 pp	1 (5%)	3% (-1 pp)

Nuts, oilseeds and edible oils

Mozambique has significant potential to export sesame seeds, groundnuts and cashew nuts. Trade data shows that more than half of total sesame seed exports go to China (using mirror statistics, China even absorbs 80% of all exports). EU countries, like the Hellenic Republic (Greece), Germany or Spain, are growth markets that offer opportunities for market diversification. However, the peak sesame production of 117,000 tons in 2012 could not be matched again in more recent years, and, as a consequence, Mozambique has lost ground in terms of comparative advantage.

Much of Mozambique's groundnut production is exported to the Republic of Indonesia – a market that does not perform particularly well or grant duty-free access to Mozambique's exporters. The Netherlands and Germany are similarly big markets, but offer more dynamic demand (+14 and +12% annual growth between 2010 and 2014⁴⁰) and favourable tariff conditions to Mozambique's exporters. These two markets also promise significant export revenues for shelled cashew nuts, currently mostly sold to the United States. The ageing of trees and diseases, however, has led to a decrease of Mozambique's comparative advantage in the past years.

Edible oils represent an excellent opportunity for value addition in the sector. Mozambique has a tradition of exporting coconut oil, but disease outbreaks have cut production levels of coconuts by half since the early 2000s. Sunflower oil exports took off rather recently, in 2010, but have quickly reached a value of US\$ 25 million. Almost 100% of exports go to the Swiss Confederation. If production capacity can be expanded, Spain, Italy and China would be fast-growing alternatives to market larger quantities. Groundnut oil, soya bean oil and palm oil may be options to further diversify Mozambique's edible oils exports. The latter two products are in high demand globally. Mozambique has also started exporting prepared nut mixes to India and the United States that may generate export earnings in the mid-term future.⁴¹

Table 57: Mozambique's exported products with potential: Nuts, oilseeds and edible oils

	Total X potential	China		EU		East Afri	ca
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)		X potential (US\$ thousand)	unused potential
Sesamum seeds, whether or not broken	82 382	48 344	O 8%	26 593	98%	858	O 15%
Groundnuts, not roasted	41 321	582	● 79%	3 <mark>4 892</mark>	98%	3 185	45 %
Cashew nuts, without shell, fresh or dried	37 035	572	90%	30 503	85%	1 099	O 1%
Sunflower-seed or safflower oil, crude	24 700	2 419	100%	11 036	99%	3 307	100%
Cashew nuts, in shell, fresh or dried	20 047	189	● 71%	188	● 76%	16	O 8%
Cotton seeds	7 956	2 472	100%	1 880	81%	2 904	0 0%
Coconut (copra) oil crude	6 203	190	100%	5 647	100%	38	O 0%
Cotton sed oil-cake and other solid residues, whether or not grou	2 878	_	_	100	100%	2 683	● 74%
Nuts nes	1 775	103	100%	1 303	96%	60	O 13%
Almonds, fresh or dried, shelled or peeled	1 507	19	0 0%	1 418	96%	5	O 9%

Note: The table lists products with a total export potential of more than US\$ 1 million.

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⁴⁰ Direct data.

⁴¹ Since Mozambique has not yet developed a comparative advantage in this product, current export potential is less than US\$ 1 million; hence, the product is not listed in table 57. Future expansion of production capacity will help turn the product into a viable export opportunity.

Table 58: Mozambique's related products for export diversification: Nuts, oilseeds and edible oils

	China		EU		East Afri	ca
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Soya bean oil, crude, whether or not degummed	1 409 (-6%)	9% (0 pp)	1 009 (-8%)	1 pp	128 (-6%)	0% (2 pp)
Brazil nuts, without shell, fresh or dried	0 (31%)	0% (10 pp)	124 (12%)	0 pp	2 (1%)	0% (0 pp)
Groundnut oil, crude	101 (10%)	10% (0 pp)	121 (-1%)	2 pp	0 (29%)	1% (0 pp)
Palm oil and its fractions, refined, but not chemically modified	4 913 (-2%)	7% (0 pp)	3 021 (11%)	4 pp	1 307 (13%)	8% (4 pp)
Soya bean oilcake and other solid residues, whether or not ground or pellet	55 (-17%)	0% (1 pp)	12 371 (5%)	0 pp	376 (-5%)	0% (6 pp)
Palm nut and kernel oilcake and other solid residues, whether or not ground or pellet	58 (19%)	0% (0 pp)	485 (11%)	0 pp	5 (5%)	0% (7 pp)
Vegetable waxes, excluding triglycerides, whether or not refined or coloured	21 (13%)	0% (12 pp)	73 (9%)	0 pp	3 (3%)	2% (4 pp)
Palm oil, crude	68 (-57%)	9% (0 pp)	4 302 (2%)	1 pp	344 (11%)	0% (-0 pp)
Soya beans, whether or not broken	31 673 (10%)	0% (2 pp)	7 520 (5%)	0 pp	22 (70%)	2% (1 pp)
Palm kernel or babassu oil, crude	308 (-25%)	0% (0 pp)	529 (3%)	4 pp	6 (-2%)	0% (-0 pp)
Soya bean oil and its fractions, refined, but not chemically modified	13 (-11%)	9% (0 pp)	418 (-6%)	1 pp	391 (-7%)	3% (1 pp)
Linseed, whether or not broken	106 (17%)	0% (15 pp)	517 (5%)	0 pp	1 (4%)	0% (8 pp)
Coconut (copra) oil and its fractions, refined, but not chemically modified	103 (21%)	0% (0 pp)	322 (6%)	1 pp	9 (55%)	3% (0 pp)
Castor oil and its fractions, whether or not refined, but not chemically modified	285 (1%)	0% (10 pp)	331 (-1%)	1 pp	5 (3%)	1% (9 pp)
Sunflower seed oilcake and other solid residues, whether or not ground or pellet	0 (6%)	0% (5 pp)	1 063 (19%)	0 pp	28 (7%)	1% (4 pp)
Walnuts, fresh or dried, shelled or peeled	23 (15%)	0% (20 pp)	623 (14%)	2 pp	1 (8%)	15% (0 pp)
Palm kernel and babassu oil, their fractions, refined, but not chemically modified	222 (73%)	0% (0 pp)	271 (10%)	6 pp	42 (-1%)	0% (1 pp)
Cottonseed and its fractions, refined, but not chemically modified	0 (-30%)	10% (0 pp)	7 (-17%)	0 pp	19 (9%)	1% (4 pp)
Coconut and copra oilcake and other solid residues, whether or not ground or pellet	19 (1%)	0% (0 pp)	10 (2%)	0 pp	0 (50%)	0% (6 pp)
Walnuts in shell, fresh or dried	58 (1%)	0% (25 pp)	286 (11%)	2 pp	0 (30%)	29% (0 pp)
Almonds in shell, fresh or dried	18 (6%)	0% (10 pp)	52 (15%)	1 pp	1 (19%)	2% (0 pp)
Maize (corn) oil, crude	0 (-28%)	0% (9 pp)	134 (4%)	2 pp	4 (-12%)	12% (-3 pp)
Groundnut oilcake and other solid residues, whether or not ground or pellet	10 (-8%)	0% (2 pp)	16 (-12%)	0 pp	0 (-16%)	0% (3 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in nuts, oilseeds and edible oils: 42

- High cost of spraying trees,
- Low domestic processing of nuts,
- Plantations suffer from ageing of trees and diseases.

Pulses

Mozambique has good potential to export beans and peas. Dried pigeon peas are almost exclusively exported to India, where Mozambique enjoys a tariff advantage over competitors despite the applied tariff rate of 10%. Other growing markets that may be further explored are China and the United Kingdom. For

66

⁴² ICG (2014): An Enterprise Map of Mozambique.

black and green beans, India is also the principal market, but, here, tariffs stand even higher at 29%, disadvantaging Mozambique as compared to other suppliers of the product to India. Alternative markets with unexploited potentials comprise Indonesia, the United Kingdom and Belgium.

Table 59: Mozambique's exported products with potential: Pulses

	Total X potential	China		EU		East Africa		
Product	(US\$ thousand)	X potential (US\$		X potential (US\$		X potential (US\$	unused	
		thousand)	potential	thousand)	potential	thousand)	potential	
Dried pigeon peas and other leguminous vegetables, shelled	31 165	4 209	100%	3 39	5 • 100%	501	96%	
Urd, mung, black or green gram beans, dried, shelled, skinned or	7 968	317	100%	3 35	0 • 100%	513	43 %	
Dried bambara beans, cow peas and other beans, shelled	6 163	5	O 0%	3 95	9 🌑 98%	1 190	48 %	
Kidney beans and white pea beans dried, shelled, skinned or not	1 765	1	100%	1 57	6 93%	117	O 20%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 60: Mozambique's related products for export diversification: Pulses

	China		EU		East Afri	ca
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Beans, small red (adzuki) dried, shelled, whether or not skinned or split	1 (78%)	1 pp	6 (14%)	0 pp	3 (2%)	12% (-8 pp)
Chickpeas, dried, shelled, whether or not skinned or split	1 (-51%)	4 pp	163 (3%)	0 pp	8 (-4%)	30% (-20 pp)
Lentils, dried, shelled, whether or not skinned or split	2 (45%)	0 pp	223 (-1%)	0 pp	66 (1%)	1% (0 pp)
Peas, dried, shelled, whether or not skinned or split	296 (11%)	3 pp	275 (6%)	0 pp	70 (-6%)	17% (2 pp)
Beans, shelled or unshelled, fresh or chilled	0 (-7%)	0 pp	606 (4%)	0 pp	11 (10%)	13% (-10 pp)
Broad beans and horse beans, dried, shelled, whether or not skinned or split	0 (-61%)	3 pp	33 (2%)	0 pp	36 (-6%)	10% (-7 pp)
Peas, shelled or unshelled, fresh or chilled	2 (15%)	13 pp	187 (11%)	0 pp	3 (1%)	7% (1 pp)
Bran, sharps and other residues of leguminous plants, pelleted or not	0 (-1%)	5 pp	154 (9%)	1 pp	0 (21%)	0% (0 pp)
Flour and meal of the dried leguminous vegetables of heading no. 07.13	0 (8%)	9 pp	17 (9%)	1 pp	2 (5%)	10% (-2 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Cereals

Mozambique is a net importer of major food crops, such as maize, wheat and rice. Local production of sorghum, wheat, rice, maize and millet is for subsistence (small exports of maize also go to neighbouring Zimbabwe). The residues are exported to South Africa and the Socialist Republic of Viet Nam. Another attractive market for wheat bran is the Portuguese Republic, where demand has been strongly rising over the past five years.

Interviewed stakeholders considered rice to be a crop with potential for exports. However, FAO data indicates that rice production has fallen in recent years to 155,742 tons in 2014.

Table 61: Mozambique's exported products with potential: Cereals

	Total X potential	China		EU		East Africa		
Product		X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused	
	(004		potential	thousand)	potential	thousand)	potential	
Wheat bran, sharps and other residues, pelleted or not	16 277	220	95%	3 94	1 100%	10 777	O 7%	
Maize (corn) bran, sharps and other residues, pelleted or not	2 005	38	100%	23	100% 1	1 672	38%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 62: Mozambique's related products for export diversification: Cereals

	China		EU		East Afri	ca
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.
Rice, semi-milled or wholly milled, whether or not polished or glazed	772 (36%)	65% (-26 pp)	1 766 (5%)	5 pp	1 307 (7%)	12% (2 pp)
Rice, broken	105 (49%)	65% (-33 pp)	275 (2%)	5 pp	99 (2%)	21% (-3 pp)
Grain sorghum	400 (161%)	0% (1 pp)	129 (-5%)	1 pp	127 (1%)	5% (-1 pp)
Wheat or meslin flour	13 (37%)	65% (-2 pp)	1 016 (9%)	0 pp	523 (9%)	6% (2 pp)
Durum wheat	153 (11%)	65% (0 pp)	1 590 (11%)	0 pp	68 (46%)	2% (0 pp)
Rice in the husk (paddy or rough)	6 (22%)	65% (-29 pp)	63 (1%)	2 pp	18 (-1%)	7% (-4 pp)
Cereal groats and meal nes	0 (39%)	5% (2 pp)	26 (14%)	1 pp	4 (1%)	1% (0 pp)
Millet	0 (101%)	0% (0 pp)	52 (5%)	3 pp	11 (-24%)	11% (-5 pp)
Oats, hulled, pearled, sliced or kibbled	0 (-25%)	0% (20 pp)	9 (11%)	1 pp	1 (-2%)	2% (7 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Coffee and tea

Mozambique's geographic and climate conditions with high altitudes, rainfalls and moderate temperatures are ideal for tea cultivation, at one point turning the country into Africa's third-largest producer. Currently, however, tea production is insufficient to meet local demand. A combination of old plantations, poor infrastructure and lacking technical and managerial skills has weighed upon Mozambique's competitiveness. Small quantities of black tea are nevertheless exported to European markets, the United States and Kenya. Given the 25% duty Kenya applies, Mozambique might be better off selling all its produce directly to end consumers in Europe or South Africa. If the mentioned challenges can be overcome, smaller packaged and branded tea would be a feasible diversification opportunity that promises higher price premiums. The interviewed expert from the Confederation of Trade Associations confirmed this assessment.

Coffee is also produced in small quantities (900 tons in 2014) and our methodology identifies the product as a feasible diversification opportunity. The Slow Food Foundation supports the production of Ibo coffee, an endemic variety, which could take pressure from fishery as an alternative source of income on Ibo Island in the north of Mozambique.⁴³

Table 63: Mozambique's exported products with potential: Coffee and tea

	Total X potential	China	a	E	J	East Afr	rica
Product	(US\$ thousand)	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential	X potential (US\$ thousand)	unused potential
Black tea (fermented) and partly fermented tea in packages > 3 kg	4 166	83	93%	2 4	24 60%	1 000	•

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 64: Mozambique's related products for export diversification: Coffee and tea

	China		EU		East Africa		
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and	
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.	
Coffee, not roasted, not decaffeinated	95 (18%)	8 pp	10 354 (2%)	0 pp	144 (2%)	15% (-11 pp)	
Maté	0 (26%)	10 pp	11 (16%)	0 pp	0 (3%)	9% (2 pp)	
Black tea (fermented) and partly fermented tea in packages not exceeding 3 kg	18 (11%)	7 pp	487 (2%)	0 pp	36 (-6%)	11% (-6 pp)	

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in tea: 44

- · Old plantations,
- · Lack of managerial and technical training,
- Lack of financial capacity to renew existing plantations,
- High costs and poor supply of electricity,
- Poor access roads to plantations increase export costs.

Sugar and sugar-related products

Thanks to foreign investment that has increased production capacities, 45 sugar is the agro-based product with the highest export potential. Most exports go to the EU, where Mozambique enjoys a tariff advantage over South American competitors. The potential in many European markets, however, is already

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⁴³ www.fondazioneslowfood.com/en/slow-food-presidia/ibo-coffee/.

⁴⁴ ICG (2014): An Enterprise Map of Mozambique and stakeholder interviews.

exhausted (some potential remains in Portugal and the United Kingdom, two of Europe's biggest importers). Mozambique may, therefore, venture into new markets: South Africa and China seem attractive, as they offer untapped potentials of around US\$ 30 million each. However, South Africa applies a 17% MFN tariff to Mozambique, bringing the country into a difficult position vis-à-vis Swaziland, which enjoys duty-free access to the South African market. By contrast, the 50% tariff rate applied by China is not a disadvantage for Mozambique, as other suppliers face the same duty.

The interviewed expert indicated that 90% of the output is generated by only three commercial farms in the country. An out grower system with a larger unit subcontracting and providing technical assistance to smaller units surrounding it seems appropriate for Mozambique and has been expanding successfully over the last few years. The revised diagnostic trade integration study (DTIS) also sees opportunities in exploiting the sugar industry for ethanol production.

Table 65: Mozambique's exported products with potential: Sugar and sugar-related products

	Total X potential	China		EU		East Africa		
Product	(US\$ thousand)	China			X potential (US\$ thousand)		X potential (US\$ thousand)	unused potential
Raw cane sugar	210 308		29 758	100%	,		,	•
Cane molasses	33 332		-	_	21 242	92%	11 32	2 0 17%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Challenges to realize additional exports in sugar: 46

- High refining costs lead to export of raw sugar cane,
- Land policy not conducive to firms' access to credit at affordable interest rates,
- Exchange rate fluctuations vis-à-vis the euro and US dollar.

4.3.3. Cotton and textiles

Mozambique's cotton industry has seen many ups and downs. Nowadays, the sector involves 300,000 farmers and provides another 20,000 jobs to farm workers (ICG, 2014). Production of cotton lint stood at 55,000 tons in 2013, thus not much higher than in the early 1970s. Since the collapse of the local textile industry, most cotton is exported. Cotton exports go to Asia (Indonesia, China and other South-East Asian markets) and the Republic of Mauritius. Untapped potential worth almost US\$ 40 million persists in the Chinese market, thanks to a huge and still growing demand and a significant tariff advantage over other suppliers.

Sector info*

Employment growth:* 30%
Female labour participation:* 44%
Prominence of SMEs:* 96%
Foreign direct investment:* 2%
Share of exporting firms:* 5%

* World Bank enterprise survey (2007). Sample size = 51 firms of ISIC sector "Manufacture of wearing apparel; dressing and dyeing of fur".

⁴⁵ Revised DTIS Mozambique (2015), available from www.speed-program.com/wp-content/uploads/2016/02/Mozambique-Diagnostic-Study-on-Trade-Integration-in-National-Development-Policies-August-2015-EN.pdf.

⁴⁶ ICG (2014): An Enterprise Map of Mozambique.

Mozambique also produces other fibres, like coconut, which could generate further export revenues in China or the EU. The interviewed expert from the Confederation of Trade Associations also believed that a revival of the textile industry would be feasible if established in areas with good energy supply.

Table 66: Mozambique's exported products with potential: Cotton and textiles

	Total X potential	China		EU		East Afri	ca
Product	(US\$ thousand)	X potential (US\$ thousand)		X potential (US\$ thousand)		X potential (US\$ thousand)	unused potential
Cotton, not carded or combed	72 232	47 871	81%	4 748	● 76%	4 291	92%
Wig, eyebrow, eyelash, etc.	30 196	59	100%	3 983	100%	24 255	42 %
Coconut, abaca, ramie and other vegetable fibers, raw, processe	7 955	2 436	● 67%	5 062	3 71%	168	52 %
Cotton, carded or combed	4 045	85	100%	1 556	100%	1 883	● 63%
Twine, cordge and cable, with rubber or plastic	1 898	21	100%	1 138	O 13%	464	89%
Articles of apparel, accessories, not knit or crochet	1 335	10	100%	1 150	99%	51	O 6%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 67: Mozambique's related products for export diversification: Cotton and textiles

	China		EU		East Afr	rica
Product	Market imports (US\$	Applied tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	and tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.
Wool, not carded or combed	2 496 (4%)	38% (0 pp)	839 (2%)	0 pp	10 (14%)	0% (0 pp)
Cotton yarn (not sewing thread), 85% or more cotton, not for retail	3 778 (20%)	0% (3 pp)	1 862 (-1%)	1 pp	37 (4%)	4% (3 pp)
Jute and other textile bast fibres (not flax, true hemp or ramie), raw, pr	53 (-26%)	0% (0 pp)	13 (9%)	0 pp	11 (6%)	19% (-0 pp)
Woven cotton fabrics, 85% or more cotton, weight more than 200 g/m ²	443 (-0%)	0% (0 pp)	1 451 (1%)	1 pp	103 (0%)	5% (3 pp)
Yarn of jute or of other textile bast fibres of hd no. 53.03	50 (42%)	0% (0 pp)	46 (-14%)	0 pp	4 (-16%)	9% (0 pp)
Articles of apparel, accessories, knit or crochet	1 074 (21%)	0% (8 pp)	84 279 (4%)	4 pp	1 889 (8%)	7% (20 pp)
Fine or coarse animal hair, not carded or combed	88 (10%)	0% (9 pp)	259 (-0%)	0 pp	6 (-0%)	0% (0 pp)
Carpets and other textile floor covering, woven, not tufted or flocked	47 (21%)	0% (10 pp)	1 377 (2%)	1 pp	43 (8%)	11% (9 pp)
Woven cotton fabrics, 85% or more cotton, weight less than 200 g/m ²	331 (-1%)	0% (3 pp)	2 796 (-1%)	4 pp	381 (9%)	19% (5 pp)
Yarn of artificial staple fibre, not for retail sale	35 (-14%)	0% (3 pp)	475 (-3%)	1 pp	5 (-11%)	6% (9 pp)
Woven fab of cotton, less than 85%, mixed with manmade fibre, weight >200	148 (3%)	0% (4 pp)	553 (5%)	2 pp	30 (12%)	19% (-4 pp)
Woven fabrics of jute or of other textile bast fibres of hd no. 53.03	2 (4%)	0% (3 pp)	50 (-3%)	3 pp	11 (-16%)	3% (8 pp)
Other made textile articles, sets, worn clothing, etc.	344 (12%)	0% (6 pp)	18 842 (4%)	5 pp	1 713 (7%)	9% (4 pp)
Yarn of synth staple fibre, not for retail sale	152 (-3%)	0% (3 pp)	1 308 (-0%)	1 pp	84 (8%)	4% (9 pp)
Yarn of other vegetable textile fibres; paper yarn	3 (0%)	0% (6 pp)	25 (1%)	1 pp	1 (2%)	2% (0 pp)
Cotton yarn (not sewing thread), less than 85% cotton, not for retail	206 (13%)	0% (2 pp)	165 (4%)	1 pp	10 (2%)	17% (1 pp)
Wool and fine or coarse animal hair, carded or combed	122 (2%)	0% (4 pp)	1 210 (4%)	1 pp	4 (-12%)	0% (0 pp)
Woven fab of synthetic staple fibre (>85% of such fibre), mixed with cotton (wt)	69 (-3%)	0% (8 pp)	477 (2%)	3 pp	65 (2%)	11% (12 pp)
Woven fab of synthetic staple fibre (<85% of such fibre), mixed with cotton (wt)	65 (-8%)	0% (9 pp)	418 (-2%)	1 pp	137 (5%)	7% (19 pp)
Woven fabrics of cotton nes	46 (-4%)	0% (12 pp)	248 (-5%)	5 pp	23 (5%)	11% (14 pp)

Artificial filam yarn, not put up	68 (-6%)	0% (5 pp)	334 (2%)	0 pp	3 (6%)	0% (1 pp)
Carpets and other textile floor covering, knotted	14 (18%)	0% (10 pp)	523 (-5%)	3 pp	22 (-2%)	2% (5 pp)
Terry towelling	7 (-2%)	0% (12 pp)	56 (-1%)	1 pp	4 (-4%)	0% (13 pp)
Silk yarn (other than yarn spun from silk waste)	3 (-1%)	0% (5 pp)	161 (10%)	1 pp	0 (23%)	0% (-0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in cotton and textiles: 47

- High level of contamination.
- Competition from other fibres and subsidized production in China and the United States.

4.3.4. Wood and wood products

Mozambique has an abundance of natural forests, covering about 78% of the total area of the country. The forestry sector employs 200,000 people and China is the principal market for rough wood exports. India, where Mozambique benefits from advantageous tariff conditions as compared to competitors, may be considered for market diversification. Illegal logging practices pose a serious problem to the industry. Therefore, two of the interviewed experts recommended disregarding the sector until corruption issues have been solved. Another expert suggested focussing on value-added products, like basketwork (identified as a feasible opportunity for diversification - see table 68) and furniture. Other, more up the value chain opportunities lie in wood pulp or wood carpentry.

Policies encourage local processing into sawn or chipped wood. However, according to the Enterprise Map of Mozambique, the chipping is of low quality and, therefore, not adding value to the raw product.

Sector info*

22% Employment growth:* Female labour participation:* 7%

Prominence of SMEs:*

Foreign direct investment:* 0%

Share of exporting firms:*

0% * World Bank enterprise survey (2007). Sample size = five firms of ISIC sector "Manufacture of wood and of products of wood

100%

and cork, except furniture; manufacture of articles of straw and plaiting materials".

Table 68: Mozambique's exported products with potential: Wood and wood products

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Wood in the rough	301 108	202 206	O 20%	38 097	100%	4 689	99%
Wood sawn and chipped lengthwise, sliced or peeled	152 294	46 853	O 0%	77 491	98%	15 936	96%
Fuel wood; wood in chips or particles; sawdust and wood waste a	7 858	2 826	100%	4 640	100%	18	100%

Note: The table lists products with a total export potential of more than US\$ 1 million.

⁴⁷ ICG (2014): An Enterprise Map of Mozambique.

Table 69: Mozambique's related products for export diversification: Wood and wood products

	China		EU		East Afric	ca
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Chemical wood pulp, soda or sulphate, other than dissolving grades	7 747 (7%)	0 pp	11 012 (-2%)	0 pp	71 (16%)	2% (0 pp)
Basketwork, wickerwork and other articles made from plaiting materials	4 (14%)	2 pp	646 (-1%)	2 pp	12 (-2%)	5% (15 pp)
Wood wool; wood flour	3 (6%)	3 pp	40 (8%)	0 pp	1 (-10%)	1% (0 pp)
Wood charcoal (including shell or nut charcoal)	46 (21%)	0 pp	409 (4%)	0 pp	13 (3%)	0% (0 pp)
Wood marquetry and inlaid wood; caskets and cases or cutlery of wood	15 (6%)	0 pp	554 (3%)	1 pp	11 (4%)	8% (17 pp)
Builders' joinery and carpentry of wood	46 (19%)	7 pp	5 859 (3%)	0 pp	129 (7%)	7% (2 pp)
Chemical wood pulp, dissolving grades	1 613 (10%)	0 pp	955 (7%)	0 pp	3 (33%)	0% (0 pp)
Plaits and similar products of plaiting material mats, matting, screens	5 (1%)	2 pp	144 (-2%)	2 pp	3 (-1%)	4% (13 pp)
Semi-chemical wood pulp	764 (-0%)	0 pp	342 (2%)	0 pp	1 (-16%)	0% (0 pp)
Mechanical wood pulp	27 (-1%)	0 pp	192 (-10%)	0 pp	0 (57%)	0% (0 pp)
Chemical wood pulp, sulphite, other than dissolving grades	53 (6%)	0 pp	329 (-17%)	0 pp	7 (32%)	0% (0 pp)
Natural cork, roughly squared or in rectangular blocks or strips	2 (5%)	8 pp	33 (15%)	0 pp	0 (-33%)	0% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in wood and wood products: 48

- Lack of trained manpower and managerial capability,
- · Destruction of forests through fires,
- · Illegal logging and smuggling,
- Unsustainable resource allocation and inappropriate harvesting quotas,
- Poor infrastructure,
- Capital market not developed enough to handle the long-term and large investments needed in the forest sector,
- · Little research on forest issues.

⁴⁸ ICG (2014): An Enterprise Map of Mozambique.

4.3.5. Construction materials

Unwrought aluminium is the Mozambican product with highest export potential. Mirror statistics suggest that almost 100% of exports are destined to the EU. At the same time, Mozambique is the EU's fourth-largest supplier, after the Kingdom of Norway, the Russian Federation and the United Arab Emirates. As a consequence, there is hardly any room for further export expansion. The Republic of Turkey, China and South Africa are identified as potential non-EU target markets. With Mozambique experiencing a declining comparative advantage in unwrought aluminium, the country may also look into new mineral- or metal-based export options. ⁴⁹ Already exported items with potential include copper and iron- and steel-based tubes and pipes. Copper has good chances of export success in China and the EU, whereas iron or steel pipes enjoy (for the moment, already utilized) export potential in the regional market.

Related products for export diversification include ferro-alloys or flat-rolled products of iron and steel, which are generally in high demand in the EU and in China, where Mozambique benefits from tariff advantages over other suppliers. A large nickel reserve discovered in 2012 may complement the export offer. ⁵⁰

Sector info*

Employment growth:* 4% (5%)

Female labour participation:* 8% (8%)

Prominence of SMEs:* 100% (99%)

Foreign direct investment:* 58% (26%)

Share of exporting firms:* 3% (1%)

* World Bank enterprise survey (2007). Sample size = 10 (78) firms of ISIC sector "Manufacture of other non-metallic mineral products" ("Manufacture of fabricated metal products, except machinery and equipment").

Firms that engage in value-added engineering and assembling reportedly also operate in the sector (ICG, 2014). Metal engineering and automotive assembly were considered as subsectors with potential by the interviewed expert from the Confederation of Trade Associations. However, these activities still face a number of challenges as listed below.

Table 70: Mozambique's exported products with potential: Construction materials

	Total X potential	China		EU		East Afric	ca
Product	(US\$ thousand)	X potential (US\$		X potential (US\$, ,	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Unwrought alumimum	1 595 721	59 594	97%	1 391 605	O 7%	6 412	● 69%
Unrefined copper; copper anodes for electrolytic refining	18 527	9 045	85%	9 139	100%	32	100%
Tubes and pipes nes, ext diam > 406.4 mm, of iron and steel	9 713	36	100%	1 405	100%	1 629	O 4%
Refined copper and copper alloys, unwrought	7 009	3 729	84%	2 810	● 72%	191	98%
Tubes, pipes and hollow profiles of iron or steel, nes	4 922	60	100%	1 613	100%	1 195	O 19%
Unwrought lead	4 208	270	O 11%	3 029	97%	174	● 76%
Tubes, pipes and hollow profiles, seamless, or iron or steel	1 213	29	100%	333	100%	69	1 48%

Note: The table lists products with a total export potential of more than US\$ 1 million.

⁴⁹ Note that coal, as a natural resource, is excluded from the export potential analysis.

⁵⁰ www.macauhub.com.mo/en/2012/04/12/nickel-reserve-found-in-mozambique%E2%80%99s-cabo-delgado-province/.

Table 71: Mozambique's related products for export diversification: Construction materials

	China		EU		East Afr	rica
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Nickel matte, nickel oxide sinters	913 (-4%)	0 pp	1 278 (-5%)	0 pp	44 (-24%)	0% (0 pp)
Ferro-alloys	3 522 (1%)	0 pp	10 750 (-1%)	0 pp	210 (12%)	0% (0 pp)
Pig iron and spiegeleisen in pigs	285 (-33%)	1 pp	1 779 (2%)	1 pp	2 (4%)	2% (-0 pp)
Unwrought nickel	2 290 (-12%)	1 pp	6 656 (3%)	0 pp	24 (-12%)	0% (0 pp)
Cobalt mattes and other products and articles of cobalt, incl. waste and scrap	595 (0%)	3 pp	787 (-0%)	0 pp	6 (40%)	0% (0 pp)
Unwrought tin	346 (-8%)	1 pp	1 420 (3%)	0 pp	32 (-5%)	0% (0 pp)
Ferrous prod obtained by direct reduction of iron ore (minimum pure iron of 99.9)	294 (-24%)	1 pp	755 (0%)	0 pp	4 (-24%)	6% (-0 pp)
Aluminium wire	48 (-1%)	7 pp	1 339 (5%)	2 pp	92 (0%)	0% (-0 pp)
Flat-rolled prod. of iron or non-al/s wd>/=600mm,clad, plated or coated	2 780 (-4%)	5 pp	19 340 (-0%)	0 pp	1 086 (7%)	11% (1 pp)
Copper mattes; cement copper (precipitated copper)	252 (-17%)	1 pp	166 (-17%)	0 pp	1 (-53%)	0% (0 pp)
Semi-finished products of iron or non-alloy steel	153 (-20%)	2 pp	8 462 (-3%)	0 pp	189 (19%)	4% (0 pp)
Unwrought zinc	1 268 (4%)	1 pp	4 175 (2%)	0 pp	144 (19%)	1% (0 pp)
Angles, shapes and sections of iron or non-alloy steel	191 (3%)	6 pp	5 704 (2%)	0 pp	264 (2%)	14% (-8 pp)
Beryllium, chromium, germanium, etc. and art of these metals, incl. waste and scrap	89 (0%)	4 pp	615 (-3%)	1 pp	6 (-14%)	0% (0 pp)
Antimony and articles thereof, including waste and scrap	2 (-21%)	4 pp	126 (-3%)	4 pp	2 (-2%)	0% (0 pp)
Lead plates, sheets, strip and foil; lead powders and flakes	5 (-0%)	6 pp	200 (4%)	0 pp	10 (-19%)	6% (0 pp)
Zinc dust, powders and flakes	19 (1%)	5 pp	93 (-7%)	0 pp	4 (-32%)	0% (0 pp)
Bars and rods, hot-rolled, in irregularly wound coils, of other alloy steel	174 (5%)	3 pp	1 351 (1%)	0 pp	46 (40%)	3% (-0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in metal-based products:⁵¹

- Lack of finance,
- · High costs of raw materials,
- Shortage of skilled labour,
- Vocational trainings inadequate to meet the needs of the firms in the sector.

The export potential analysis also identified surveying instruments as a product with potential. Since these are at least partly re-exports, they are not shown or further discussed here.

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⁵¹ ICG (2014): An Enterprise Map of Mozambique.

4.4. Zambia's sectors with export potential

Zambia's economy is even more dependent on natural resource exports than Mozambique. Zambia's focus is on copper, which accounts for US\$ 6.6 billion, more than 90% of Zambia's total current export potential. Thanks to enormous demand, the Chinese market is by far the most attractive one. Even though the extractive industries sector continues to be a priority area in Zambia's national development agenda, diversification into niche products is necessary to broaden the export base and secure future revenues against external shocks.

Only six other sectors currently show an export potential exceeding US\$ 5 million. While textiles have great potential in the Chinese market, distance-sensitive products of the vegetables and processed food and beverages sectors find better opportunities in regional markets. The sections below will discuss these existing along with new opportunities for export diversification in detail.

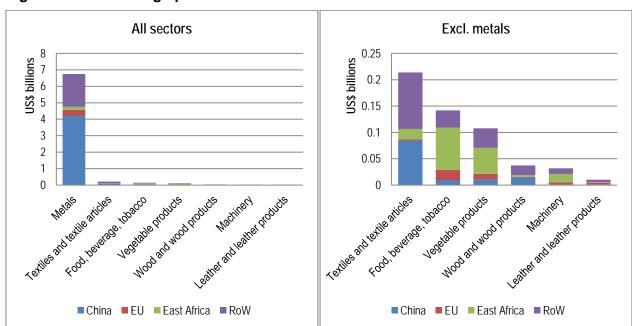


Figure 9: Zambia's high potential sectors

Note: The graphs show sectors with a total export potential of more than US\$ 5 million.

4.4.1. Animal-based products

The Government of Zambia strives for agricultural diversification. Improved conditions for the animal-based sector with the aim to achieve higher livestock productivity are part of this strategy.

Fisheries

Even though Zambia is a landlocked country, it has abundant water resources. Zambia's Revised Sixth National Development Plan has put a strategic focus on the fishery sector, and in particular aquaculture. To ensure sustainability, the government will improve the research and marketing infrastructure and promote the co-management of capture fisheries in natural water bodies. Currently, only molluscs have significant potential for exports. Hong Kong is Zambia's only market. With imports having grown at 11% annually over the past five years, China may be considered as an alternative export destination that grants better market access conditions to Zambia than to other suppliers.

Manifold options exist for export diversification, including fish flour and fresh or frozen fish fillets that are highly demanded in the EU.⁵² The interviewed expert from the Ministry of Commerce, Trade and Industry believes that aquaculture has potential for import substitution, but also for exports.

Table 72: Zambia's exported products with potential: Fisheries

	Total X potential	China	1	EU		East Afr	rica	
Product	(US\$ thousand)	X potential (US\$ thousand)		X potential (US\$ thousand)		X potential (US\$ thousand)	unused potenti	
Molluscs and other aquatic invertebrates	2 115	462	100%	683	• 100%	20	0 0 1	100%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 73: Zambia's related products for export diversification: Fisheries

	China		EU		East Afri	ca
Product	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Flour, meal and pellet of fish, crust, mol., other aqua invertebrates, unfit for human consumption	1 551 (-1%)	1 pp	1 020 (-2%)	0 pp	13 (-21%)	0% (0 pp)
Fish meat, frozen	56 (16%)	5 pp	742 (2%)	3 pp	17 (-8%)	2% (2 pp)
Fish fillets, frozen	87 (5%)	5 pp	6 192 (3%)	5 pp	23 (4%)	5% (4 pp)
Fish fillets and pieces, fresh or chilled	3 (-18%)	10 pp	2 536 (5%)	3 pp	12 (14%)	2% (1 pp)
Fish fats and oils and their fractions, excl. liver, refined or not, not chemically modified	87 (4%)	5 pp	596 (7%)	2 pp	2 (7%)	1% (1 pp)
Tunas, skipjack and atl. bonito, prepared or preserved, whole or in pieces, excl. minced	14 (13%)	1 pp	3 190 (9%)	3 pp	99 (9%)	8% (10 pp)
Other crustaceans, frozen	10 (3%)	5 pp	308 (2%)	1 pp	2 (18%)	1% (1 pp)
Coral and sim mat, shellfish shell, cuttlebone, echinoderm unwk unshp pdr and waste	22 (-0%)	5 pp	44 (5%)	0 pp	0 (10%)	5% (1 pp)

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⁵² Note that tuna is a saltwater fish that cannot be produced in Zambia. Since other landlocked countries, like Slovakia, the Czech Republic and Austria, have developed a canning industry and export canned tuna on a regular basis, our method has not removed the product for Zambia either, even though it seems rather unlikely that the country could realize exports in the mid-term future.

Ornamental fish	6 (31%)	3 pp	158 (-3%)	2 pp	3 (5%)	0% (0 pp)
Fish-liver oils and their fractions, refined or not, but not chemically modified	5 (2%)	4 pp	51 (6%)	0 pp	0 (8%)	0% (1 pp)
Extracts and juices of meat, fish, or crust., molluscs and other aquatic invertebrates	1 (-9%)	19 pp	85 (3%)	2 pp	1 (9%)	0% (2 pp)
Snails (excl. sea), shelled or not, live, fresh, chd, fz, dried, salted or in brine	8 (-43%)	5 pp	48 (8%)	0 pp	0 (-11%)	8% (1 pp)
Trout, live	0	0 pp	62 (6%)	0 pp	0 (-2%)	0% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Leather

Zambia has potential to export reptile and bovine leather. Small quantities of reptile leather are exported to Japan and Italy. With Italian demand being large and growing, additional exports can be realized. France offers similarly good demand conditions as Italy, but, since it is a relatively new market to Zambia, entry costs could be high. For bovine leather, our analyses suggest that Zambia might find it more difficult to realize additional exports. First, Zambia does not possess a comparative advantage for exporting this good. Second, the potential in its major markets is already exhausted and new markets, like the Democratic People's Republic of Korea, promise lower sales potentials.

Even though the leather sector was considered to have potential, stakeholders expressed concerns about the lack of reforms, which has led to the closure of many tanneries. Zambia's current policy framework does not seem conducive to establish a footwear industry. Zambia charges a 25% MFN duty on the imports of footwear parts, making it difficult for shoemakers to acquire inputs.

Table 74: Zambia's exported products with potential: Leather

	Total X potential	China		EU		East Africa		
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused	
		thousand)	potential	thousand)	potential	thousand)	potential	
Raw hides and skins (other than furskins) and leather, of reptiles	5 189	100	3 78%	1 651	● 73%	260	9 0%	
Raw hides and skins (other than furskins) and leather, of bovine o	4 429	1 705	O 5%	902	38 %	286	0 9%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 75: Zambia's related products for export diversification: Leather

	China		EU		East Afri	ca
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Raw or tanned (in the wet state) skins of sheep or lamb, without wool on	103 (-6%)	4 pp	283 (6%)	0 pp	95	0% (0 pp)
Hides and skins (in the dry state) and leather of goats or kids, without wool on	139 (2%)	10 pp	475 (3%)	1 pp	309	6% (7 pp)
Tanned or dressed fur skins and pieces, unassembled or assembled	190 (19%)	11 pp	647 (6%)	0 pp	905	0% (5 pp)
Raw fur skins and pieces suitable for furriers' use nes	806 (14%)	15 pp	1 098 (15%)	0 pp	_	0% (0 pp)
Articles of gut, of goldbeater's skins, of bladders or of tendons	0 (42%)	20 pp	24 (13%)	0 pp	865	2% (14 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Challenges to realize additional exports in leather:⁵³

- Low quality (due to poor cutting and branding practises, and diseases),
- Lack of government support,
- Shortage of skilled chemists and shoemakers,
- High costs for imported inputs.

4.4.2. Vegetable-based products

Crop diversification, from maize to soya beans, wheat, rice, nuts, beans, cotton, coffee and tea, has been prioritized in Zambia's Revised Sixth National Development Plan. To achieve sectoral transformation, significant challenges have to be addressed, including poor storage, inadequate irrigation and other infrastructure challenges. Lack of technical and managerial skills and lack of access to affordable credit have also been mentioned as limiting factors.⁵⁴

Oilseeds and oilcakes

Cottonseeds and soya beans come out as products with export potential. Zambia's soya bean exports have grown rapidly between 2010 and 2014. China is a huge market, demanding almost US\$ 32 billion. High demand, together with generally strong Sino-Zambian trade linkages, turns China into Zambia's number one attractive market for soya bean exports. Other oilseeds and nuts are produced in the country as well and could potentially also be exported. According to FAO data, 106,792 tons of groundnuts were harvested in 2013, processed into 3,600 tons of oil. Production of sunflower seeds stood at 33,733 tons.

Sector info*

National export priority?

Employment growth:

Female labour participation:

Prominence of SMEs:

81%

Foreign ownership share:

24%

Share of exporting firms:

* World Bank enterprise survey (2013). Sample size = 62 firms of ISIC sector "Manufacture of food products and beverages".

3%

The cakes remaining from oil extraction are potential export earners as well. This came out in the discussions with local experts and is forcefully confirmed by the quantitative analyses. Zambia has a strong comparative advantage in cottonseed oilcake that could translate into significant future export revenues. By far the highest potential is found in South Africa, where a large animal-feed sector generates substantial demand. South Africa's biggest suppliers are Zimbabwe, the Republic of Benin, Malawi, India and Zambia. Zambia's proximity to the market and favourable tariff conditions through SADC should normally bring it into a competitive position compared with Benin and India. Zambia may also win market shares from Zimbabwe, which has recently seen its exports of cotton oilcake declining.

Other oilcakes remaining from the oil production of locally grown seeds and nuts (groundnut oilcakes, sunflower seed oilcakes and soya bean oilcakes) may be considered for diversification. Soya bean oilcake in particular is in huge and growing demand in Europe.

⁵⁴ Ministry of Finance (2014): Revised Sixth National Development Plan; Zambia Development Agency (2014): Agro-processing Sector Profile; ICG (2013): An Enterprise Map of Zambia.

⁵³ ICG (2013): An Enterprise Map of Zambia and stakeholder interviews.

Table 76: Zambia's exported products with potential: Oilseeds and oilcakes

Product	Total X potential	China		EU		East Africa		
	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused	
		thousand)	potential	thousand)	potential	thousand)	potential	
Cotton sed oil-cake and other solid residues, whether or not grou	29 161	-	-	112	100%	28 683	92%	
Cotton seeds	13 994	2 657	100%	383	100%	5 472	O 24%	
Soya beans, whether or not broken	9 037	6 263	100%	938	100%	88	0 19%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 77: Zambia's related products for export diversification: Oilseeds and oilcakes

	China		EU		East Afri	ca
Product	Market imports (US\$ million) and growth	Applied tariff and tariff adv.	Market imports (US\$ million) and growth	Tariff adv.*	Market imports (US\$ million) and growth	Applied tariff and tariff adv.
Groundnuts, not roasted	33 (18%)	0% (7 pp)	1 023 (8%)	0 pp	51 (-3%)	0% (2 pp)
Sesamum seeds, whether or not broken	706 (18%)	0% (0 pp)	307 (13%)	0 pp	12 (1%)	1% (2 pp)
Soya bean oil, crude, whether or not degummed	1 409 (-6%)	9% (0 pp)	1 009 (-8%)	1 pp	128 (-6%)	0% (2 pp)
Sunflower seed or safflower oil, crude	242 (28%)	9% (0 pp)	2 052 (5%)	1 pp	218 (8%)	0% (13 pp)
Soya bean oilcake and other solid residues, whether or not ground or pellet	55 (-17%)	0% (1 pp)	12 371 (5%)	0 pp	376 (-5%)	0% (6 pp)
Coconut (copra) oil and its fractions, refined, but not chemically modified	103 (21%)	0% (0 pp)	322 (6%)	1 pp	9 (55%)	1% (2 pp)
Groundnut oil, crude	101 (10%)	10% (0 pp)	121 (-1%)	2 pp	0 (29%)	0% (1 pp)
Palm oil, crude	68 (-57%)	9% (0 pp)	4 302 (2%)	1 pp	344 (11%)	0% (0 pp)
Vegetable waxes, excluding triglycerides, whether or not refined or coloured	21 (13%)	0% (12 pp)	73 (9%)	0 pp	3 (3%)	0% (6 pp)
Soya bean oil and its fractions, refined, but not chemically modified	13 (-11%)	9% (0 pp)	418 (-6%)	1 pp	391 (-7%)	3% (1 pp)
Coconut (copra) oil, crude	112 (-27%)	0% (0 pp)	791 (1%)	2 pp	3 (5%)	0% (1 pp)
Cottonseed and its fractions, refined, but not chemically modified	0 (-30%)	10% (0 pp)	7 (-17%)	0 pp	19 (9%)	0% (5 pp)
Linseed, whether or not broken	106 (17%)	0% (15 pp)	517 (5%)	0 pp	1 (4%)	0% (9 pp)
Sunflower seed oilcake and other solid residues, whether or not ground or pellet	0 (6%)	0% (5 pp)	1 063 (19%)	0 pp	28 (7%)	0% (5 pp)
Sunflower seeds, whether or not broken	33 (-10%)	0% (7 pp)	2 137 (7%)	0 pp	28 (14%)	0% (3 pp)
Palm kernel or babassu oil, crude	308 (-25%)	0% (0 pp)	529 (3%)	4 pp	6 (-2%)	0% (0 pp)
Coconut and copra oilcake and other solid residues, whether or not ground or pellet	19 (1%)	0% (0 pp)	10 (2%)	0 pp	0 (50%)	0% (6 pp)
Palm nut and kernel oilcake and other solid residues, whether or not ground or pellet	58 (19%)	0% (0 pp)	485 (11%)	0 pp	5 (5%)	0% (7 pp)
Cottonseed oilcake and other solid residues, whether or not ground or pellet	3 (-6%)	0% (5 pp)	6 (16%)	0 pp	35 (9%)	0% (1 pp)
Groundnut oilcake and other solid residues, whether or not ground or pellet	10 (-8%)	0% (2 pp)	16 (-12%)	0 pp	0 (-16%)	0% (4 pp)
Linseed oilcake and other solid residues, whether or not ground or pellet	0 (2%)	0% (5 pp)	60 (6%)	0 pp	0 (137%)	0% (0 pp)
Cottonseed oil, crude, whether or not gossypol has been removed	0	10% (0 pp)	3 (20%)	1 pp	1 (-7%)	0% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Cereals

Zambia has the right climatic conditions to produce basic food crops like maize, wheat or rice that could alleviate hunger in the region. For maize especially, Zambia possesses a strongly growing comparative advantage that enables it to grow its exports. The regional market (notably the United Republic of Tanzania, Kenya and Botswana) is especially attractive for seeds. With imports as high as US\$ 1.7 billion, the Arab Republic of Egypt may be considered for other maize exports: the market offers Zambia a yet to be realized export potential of US\$ 12.9 million.

For Zambia to become a reliable maize provider, a number of challenges should be addressed: according to the DTIS, home-market trade obstacles in the form of quantitative restrictions, subsidies and price control interventions have contributed to price volatility and deterred private investment in the sector. A more transparently communicated policy based on export permits and national reserves could achieve both domestic food security and greater export revenues.

In addition to maize, Zambia produces wheat, rice, millet and sorghum. These crops could help diversify Zambia's limited export basket. Table 78 shows that, in the regional market, rice is in high and growing demand. Zambia could benefit from tariffs that are on average eight percentage points lower than those faced by other suppliers.

Table 78: Zambia's exported products with potential: Cereals

Product	Total X potential	China		EU		East Africa		
	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused	
		thousand)	potential	thousand)	potential	thousand)	potential	
Maize (corn) seed	42 945	67	100%	1 537	100%	36 159	33%	
Maize (corn) nes	30 232	1 582	100%	1 613	100%	5 347	29%	
Maize (corn) bran, sharps and other residues, pelleted or not	8 190	72	100%	79	100%	7 587	48%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 79: Zambia's related products for export diversification: Cereals

	China		EU		East Afri	ca
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.
Grain sorghum	400 (161%)	0% (1 pp)	129 (-5%)	1 pp	127 (1%)	0% (3 pp)
Durum wheat	153 (11%)	65% (0 pp)	1 590 (11%)	0 pp	68 (46%)	1% (1 pp)
Rice in the husk (paddy or rough)	6 (22%)	65% (-29 pp)	63 (1%)	2 pp	18 (-1%)	1% (1 pp)
Rice, semi-milled or wholly milled, whether or not polished or glazed	772 (36%)	65% (-26 pp)	1 766 (5%)	5 pp	1 307 (7%)	5% (8 pp)
Rice, broken	105 (49%)	65% (-33 pp)	275 (2%)	5 pp	99 (2%)	2% (15 pp)
Wheat or meslin flour	13 (37%)	65% (-2 pp)	1 016 (9%)	0 pp	523 (9%)	2% (6 pp)
Maize (corn) bran, sharps and other residues, pelleted or not	33 (334%)	0% (0 pp)	74 (10%)	0 pp	17 (5%)	0% (0 pp)
Cereal groats and meal nes	0 (39%)	5% (2 pp)	26 (14%)	1 pp	4 (1%)	0% (1 pp)
Maize (corn), hulled, pearled, sliced or kibbled	0 (-52%)	65% (0 pp)	58 (6%)	1 pp	7 (-12%)	1% (1 pp)
Maize (corn) oil, crude	0 (-28%)	0% (9 pp)	134 (4%)	2 pp	4 (-12%)	0% (9 pp)

Fonio, quinoa, triticale and other unmilled cereals	2 (-4%)	0% (0 pp)	267 (16%)	1 pp	9 (18%)	0% (1 pp)
Millet	0 (101%)	0% (0 pp)	52 (5%)	3 pp	11 (-24%)	0% (6 pp)
Oats, rolled or flaked grains	3 (8%)	0% (14 pp)	101 (16%)	0 pp	11 (3%)	2% (1 pp)
Oats, hulled, pearled, sliced or kibbled	0 (-25%)	0% (20 pp)	9 (11%)	1 pp	1 (-2%)	1% (3 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Floriculture

Zambia exports perishable products by airfreight. Despite good growing conditions, falling world prices and high local production costs have weakened Zambia's competitive stance in cut flowers, leading to a falling comparative advantage. According to the World Bank, the withdrawal of the duty-free status for imported inputs and equipment in 2010 has aggravated the situation.⁵⁵ As a consequence, existing potentials are close to exhaustion and new market opportunities are scarce. In light of these difficulties, the experts from the Zambia Development Agency were rather sceptical about the prospects of this sector. They stated that 18 companies had to close after the government phased out incentives.

Table 80: Zambia's exported products with potential: Floriculture

	Total X potential	China		EU		East Afr	ica
Product	(US\$ thousand)	X potential (US\$		X potential (US\$		X potential (US\$	unused
		thousand)	potential	thousand)	potential	thousand)	potential
Cut flowers and flower buds for bouquets, fresh	5 535	29	99%	3 113	O 25%	676	31%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 81: Zambia's related products for export diversification: Floriculture

	China		EU		East Africa	
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Cuttings and slips, unrooted	4 (13%)	0 pp	303 (4%)	0 pp	7 (-0%)	1% (0 pp)
Cut flowers and flower buds for bouquets or ornamental purposes, excl. fresh	3 (13%)	22 pp	336 (6%)	0 pp	3 (4%)	16% (4 pp)
Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, dormant	70 (10%)	2 pp	513 (5%)	0 pp	8 (-4%)	2% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Sugar and sugar-related products

Like the three other PIGA countries, Zambia enjoys large tariff advantages for sugar in the EU and has consequently directed its exports to this market. More than half of all exports go to Italy and Spain – two markets that have seen above-average import growth over the past five years, both as compared to other markets and products. Yet current potentials are exhausted, stressing the need for market diversification. China, Egypt and other East African countries seem

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⁵⁵ World Bank (2014): The Republic of Zambia – Diagnostic Trade Integration Study (DTIS).

viable options. The United Republic of Tanzania, for instance, is a growing market in East Africa that offers similarly advantageous tariff conditions as the EU (25% SADC tariff applied to Zambia as compared to 35% MFN tariff). Very recent data indeed indicates that Zambia started exporting to the United Republic of Tanzania in the second quarter of 2015.

In stakeholder consultations, the export potential for sugar cane and molasses was confirmed. Sixty per cent of sugar is produced by large companies with many smallholders linked to them through an outgrower system.

Table 82: Zambia's exported products with potential: Sugar and sugar-related products

	Total X potential	Ch	ina			EU		East Afr	ica	
Product	(US\$ thousand)	•		unused		X potential	(US\$	unused	X potential (US\$	unused
		China	potentia	al	thousand)		potential	thousand)	potential	
Raw cane sugar	100 188	9	676 • 10	00%		18 121	O 2%	41 020	97 %	
Cane molasses	3 946		-	-		1 058	100%	2 301	9 29%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 83: Zambia's related products for export diversification: Sugar and sugar-related products

	China	EU		East Africa		
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$ million)	Applied tariff and
	million) and growth	tariff adv.	million) and growth	adv.*	and growth	tariff adv.
Chewing gum containing sugar, except medicinal	9 (9%)	0% (9 pp)	216 (3%)	2 pp	136 (-2%)	6% (1 pp)
Fructose, chemically pure	2 (4%)	30% (-1 pp)	163 (6%)	1 pp	4 (4%)	0% (0 pp)
Maple sugar and maple syrup	0 (34%)	30% (0 pp)	69 (7%)	3 pp	1 (13%)	1% (1 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

4.4.3. Other agro-based products

Zambia exports a few other vegetable- or animal-based products. Peas and coffee showed a promising export performance until the mid-2000s, but have since experienced steep declines. While the modest remaining export potential in peas stems from the comparative advantage that Zambia maintains, the potential for coffee exports is purely demand-side driven, as Zambia has lost and keeps losing international competitiveness. The general perception is that lack of long-term financing is behind the downturn. The FAO has registered increasing production volumes somehow contradicting the weak export performance.

Honey has been considered to be a product with significant growth potential by the government and international support organizations alike (see, for instance, ITC's project on Zambian honey). Up to now, exports have not taken off as expected. Saudi Arabia is the market promising highest potentials for Zambian honey producers.

During the interviews, a high potential for cassava was also expressed. Currently, cassava production is mainly done by smallholders. While produced at high quantities of 1.1 million metric tons in 2013, exports of cassava or cassava-based products have not yet been registered. With high Chinese demand, the

product could nevertheless be an interesting option for export diversification (see table 84). Industrial starch furthermore has uses in mining and can serve as an input into pharmaceuticals.

Table 84: Zambia's exported products with potential: Other agro-based products

	Total X potential	China		EU		East Africa		
Product	(US\$ thousand)	X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused	
	(03\$ tilousaliu)	thousand)	potential	thousand)	potential	thousand)	potential	
Peas, shelled or unshelled, fresh or chilled	2 745		- -	1 65	5 0 1%	727	7 🔴 64%	
Coffee, not roasted, not decaffeinated	1 028		8 ● 100%	60	5 ① 48%	49	9 🕒 26%	
Honey, natural	1 016	4	4 • 100%	32	8 🕒 24%	49	9 🕒 34%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 85: Zambia's products for export diversification: Other agro-based products

	China		EU		East Africa		
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and	
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.	
Manioc (cassava), fresh or dried, whether or not sliced or pelleted	1 589 (12%)	0 pp	34 (3%)	1 pp	1 (-1%)	1% (1 pp)	
Manioc (cassava) starch	741 (19%)	0 pp	36 (5%)	9 pp	10 (-2%)	0% (5 pp)	
Tapioca subst. prep. from starch in flake, grain, pearl, sifting or sim forms	6 (24%)	8 pp	15 (3%)	10 pp	1 (-4%)	0% (0 pp)	

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

4.4.4. Cotton and textiles

Zambia has good climatic conditions for growing cotton. According to the Enterprise Map, an area spanning more than 800,000 ha would be suitable for cotton cultivation (currently used is an area of 300,000 ha). So far, price fluctuations have hampered the stabilization of outputs, as the many smallholders operating in the sector cannot compensate for temporary losses and are forced to switch to other crops. As a consequence, Zambia's cotton exports have been volatile, peaking in 2004 and 2012 at US\$ 122 and US\$ 114 million respectively, but experiencing steep declines in between, currently settling at US\$ 62 million (direct data reported by Zambia). Yet export potentials are large, mainly thanks to strong demand in key Asian markets such as China, Viet Nam or the People's Republic of Bangladesh.

Zambia's textile industry has collapsed under the competition from cheap (second-hand) clothing imports. Textiles have declined by 82% since 2001, today generating around US\$ 6 million export revenues, with clothing contributing only approximately US\$ 0.5 million. Due to the fact that Zambia possesses the capabilities it takes to produce garments, our methodology identifies numerous textile-

Sector info*

National export priority? No

Employment growth: -6% (16%)

Female labour participation: 27% (39%)

Prominence of SMEs: 75% (97%)

Foreign ownership share: 28% (7%)

Share of exporting firms: 5% (0%)

* World Bank enterprise survey (2013). Sample size = eight (30) firms of ISIC sector "Manufacture of textiles" ("Manufacture of wearing apparel; dressing and dyeing of fur").

based products as feasible diversification options. Cotton yarn, for instance, located at the next step of the cotton value chain, would be in reach and could generate substantial revenues, especially from exports to China. The interviewed expert from the Zambia Development Agency saw an interest in industry development up to spinning and ginning.

Challenges to realize additional exports in textiles: 56

- Volatile market price for cotton yarn,
- Regional competition due to duty-free access to the Zambian market and comparably lower freight costs than in Zambia.

Table 86: Zambia's exported products with potential: Cotton and textiles

	Total X potential	China		EU		East Africa	
Product	(US\$ thousand)	X potential (US\$ thousand)		X potential (US\$ thousand)		X potential (US\$ thousand)	unused potential
		tilousariu)	potential	tilousaliu)	potential	tilousaliu)	potential
Cotton, not carded or combed	213 890	84 699	● 62%	2 038	● 71%	19 925	0 1%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 87: Zambia's related products for export diversification: Cotton and textiles

	China		EU		East Afri	ca
Product	Market imports (US\$	Applied tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff
	million) and growth	and tariff adv.	million) and growth	adv.*	million) and growth	and tariff adv.
Wool, not carded or combed	2 496 (4%)	38% (0 pp)	839 (2%)	0 pp	10 (14%)	0% (0 pp)
Twine, cordge and cable, with rubber or plastic	53 (4%)	0% (4 pp)	618 (6%)	3 pp	57 (6%)	0% (1 pp)
Coconut, abaca, ramie and other vegetable fibres, raw, processed, not sp	198 (12%)	0% (3 pp)	88 (9%)	0 pp	4 (7%)	0% (0 pp)
Cotton yarn (not sewing thread), 85% or more cotton, not for retail	3 778 (20%)	0% (3 pp)	1 862 (-1%)	1 pp	37 (4%)	2% (4 pp)
Cotton, carded or combed	16 (9%)	40% (0 pp)	81 (-4%)	0 pp	11 (6%)	1% (0 pp)
Fine or coarse animal hair, not carded or combed	88 (10%)	0% (9 pp)	259 (-0%)	0 pp	6 (-0%)	0% (0 pp)
Jute and other textile bast fibres (not flax, true hemp or ramie), raw, pr	53 (-26%)	0% (0 pp)	13 (9%)	0 pp	11 (6%)	2% (17 pp)
Cotton yarn (not sewing thread), less than 85% cotton, not for retail	206 (13%)	0% (2 pp)	165 (4%)	1 pp	10 (2%)	15% (4 pp)
Other made textile articles, sets, worn clothing, etc.	344 (12%)	0% (6 pp)	18 842 (4%)	5 pp	1 713 (7%)	3% (10 pp)
Woven fabric of cotton, less than 85%, mixed with manmade fibre, weight >200	148 (3%)	0% (4 pp)	553 (5%)	2 pp	30 (12%)	0% (10 pp)
Woven cotton fabrics, 85% or more cotton, weight more than 200 g/m ²	443 (-0%)	0% (0 pp)	1 451 (1%)	1 pp	103 (0%)	2% (6 pp)
Woven fabric of synthetic staple fibre (>85% of such fibre), mixed with cotton (wt)	69 (-3%)	0% (8 pp)	477 (2%)	3 pp	65 (2%)	1% (18 pp)
Synthetic filament tow	195 (-14%)	0% (5 pp)	207 (-2%)	1 pp	55 (6%)	1% (0 pp)
Yarn of artificial staple fibre, not for retail sale	35 (-14%)	0% (3 pp)	475 (-3%)	1 pp	5 (-11%)	5% (10 pp)
Wool and fine or coarse animal hair, carded or combed	122 (2%)	0% (4 pp)	1 210 (4%)	1 pp	4 (-12%)	0% (0 pp)
Yarn of synth staple fibre, not for retail sale	152 (-3%)	0% (3 pp)	1 308 (-0%)	1 pp	84 (8%)	2% (11 pp)
Cotton yarn (not sewing thread), for retail sale	7 (-32%)	0% (3 pp)	107 (2%)	0 pp	7 (-10%)	0% (4 pp)
Yarn of other vegetable textile fibres, paper yarn	3 (0%)	0% (6 pp)	25 (1%)	1 pp	1 (2%)	1% (2 pp)

⁵⁶ ICG (2014): An Enterprise Map for Zambia.

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Terry towelling	7 (-2%)	0% (12 pp)	56 (-1%)	1 pp	4 (-4%)	0% (13 pp)
Woven fabrics of artificial staple fibres	73 (-8%)	0% (12 pp)	647 (6%)	6 pp	71 (17%)	0% (22 pp)
Woven fabrics of jute or of other textile bast fibres of hd no. 53.03	2 (4%)	0% (3 pp)	50 (-3%)	3 pp	11 (-16%)	0% (11 pp)
Artificial filament yarn, not for resale	68 (-6%)	0% (5 pp)	334 (2%)	0 pp	3 (6%)	0% (1 pp)
Nar woven fabrics, o/t those of hd no. 5807	172 (-2%)	0% (10 pp)	890 (2%)	2 pp	22 (3%)	2% (1 pp)
Yarn of jute or of other textile bast fibres of hd no. 53.03	50 (42%)	0% (0 pp)	46 (-14%)	0 pp	4 (-16%)	1% (8 pp)
Yarn of fine animal hair, not for retail sale	15 (17%)	0% (5 pp)	117 (6%)	0 pp	0 (22%)	3% (0 pp)
Carpets and other textile floor covering of felt, not tufted or flockd	2 (11%)	0% (14 pp)	457 (1%)	0 pp	4 (-4%)	1% (4 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

4.4.5. Rubber and rubber products

Zambia's Sixth National Development Plan sees potential for rubber in the Luapula Province. Local stakeholders confirmed that rubber is an interesting option that has, however, not taken off yet. One problem seems to be related to the long-term nature of the crop that requires security on land tenure rights and patience regarding the return on investment. Our analysis confirms that natural and synthetic rubber would be a feasible option for export diversification with favourable demand conditions in China and the EU.

According to World Bank data (see box), foreign investors are active in the sector that is otherwise dominated by SMEs.

Sector info*

National export priority?

Employment growth: -1%

Female labour participation: 6%

Prominence of SMEs: 83%

Foreign ownership share: 36%

Share of exporting firms: 4%

No

Table 88: Zambia's products for export diversification: Rubber and rubber products

	China	EU		East Africa		
Product	Market imports (US\$	Applied tariff and	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	tariff adv.	million) and growth	adv.*	million) and growth	tariff adv.
Natural rubber, balata, gutta-percha, etc.	7 097 (-4%)	7% (0 pp)	5 362 (-8%)	0 pp	204 (-10%)	0% (0 pp)
Synthetic rubber and factice from oil	4 101 (-2%)	0% (2 pp)	8 454 (2%)	0 pp	102 (6%)	0% (0 pp)
Cellulose and its chemical derivatives nes in primary forms	269 (10%)	0% (6 pp)	1 879 (3%)	1 pp	85 (13%)	1% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

^{*} World Bank enterprise survey (2013). Sample size = 23 firms of ISIC sector "Manufacture of rubber and plastic products".

4.4.6. Wood and wood products

With two-thirds of its area forested, Zambia has high potential to export wood. The Revised Sixth National Development Programme aims at implementing a tree planting programme to sustainably grow, harvest and process wood. Thanks to investment into more efficient machinery (ICG, 2014), wood exports have increased despite rising domestic demand. China is the principal market for Zambia's wood exports. Other high potential markets are India and South Africa.

Zambia may also diversify its wood-based exports up the value chain. Our method identifies wood pulp, builders' carpentry and railway sleepers as feasible opportunities. Pulps in particular are highly demanded by China and EU countries.

Sector info*

National export priority?

Yes

Employment growth:

-6%

Female labour participation:

6%

Prominence of SMEs:

100%

Foreign ownership share:

10%

Share of exporting firms:

1%

Table 89: Zambia's exported products with potential: Wood and wood products

	Total X potential	China		EU		East Africa		
Product (US\$ thousand)		X potential (US\$	unused	X potential (US\$	unused	X potential (US\$	unused	
		thousand)	potential	thousand)	potential	thousand)	potential	
Wood in the rough	30 109	12 666	O 12%	575	100%	563	100%	
Wood sawn and chipped lengthwise, sliced or peeled	7 334	2 032	O 13%	553	99%	2 342	92%	

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 90: Zambia's related products for export diversification: Wood and wood products

	China		EU		East Africa		
Product	Market imports (US\$	Applied tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff	
	million) and growth	and tariff adv.	million) and growth	adv.*	million) and growth	and tariff adv.	
Chemical wood pulp, soda or sulphate, other than dissolving grades	7 747 (7%)	0 pp	11 012 (-2%)	0 pp	71 (16%)	2% (0 pp)	
Fuel wood, wood in chips or particles, sawdust and wood waste and scrap	1 066 (15%)	0 pp	3 506 (9%)	0 pp	20 (0%)	0% (1 pp)	
Chemical wood pulp, dissolving grades	1 613 (10%)	0 pp	955 (7%)	0 pp	3 (33%)	0% (0 pp)	
Wood charcoal (including shell or nut charcoal)	46 (21%)	0 pp	409 (4%)	0 pp	13 (3%)	0% (0 pp)	
Semi-chemical wood pulp	764 (-0%)	0 pp	342 (2%)	0 pp	1 (-16%)	0% (0 pp)	
Builders' joinery and carpentry of wood	46 (19%)	7 pp	5 859 (3%)	0 pp	129 (7%)	6% (3 pp)	
Railway or tramway sleepers (cross-ties) of wood	4 (-17%)	0 pp	86 (7%)	0 pp	4 (47%)	0% (0 pp)	
Mechanical wood pulp	27 (-1%)	0 pp	192 (-10%)	0 pp	0 (57%)	0% (0 pp)	
Wood wool, wood flour	3 (6%)	3 pp	40 (8%)	0 pp	1 (-10%)	0% (1 pp)	

^{*} World Bank enterprise survey (2013). Sample size = 19 firms of ISIC sector "Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials".

Chemical wood pulp, sulphite, other than dissolving grades	53 (6%)	0 pp	329 (-17%)	0 pp	7 (32%)	0% (0 pp)
Natural cork, roughly squared or in rectangular blocks or strips	2 (5%)	8 pp	33 (15%)	0 pp	0 (-33%)	0% (0 pp)
Natural cork, waste cork, crushed, granulated or ground cork	8 (6%)	1 pp	148 (6%)	0 pp	0 (62%)	0% (0 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

4.4.7. Construction materials

In 2014, Zambia was the world's fifth-largest copper exporter. The huge demand in China still leaves space for future export growth. Government attempts to diversify away from copper have also led to the exploration of other minerals, such as cobalt, iron, nickel, zinc and lead. To add value, most copper is semi-processed into cathodes or alloys before being exported, but only a small fraction of less than 0.15% is fully transformed into an end product. A joint UKAid/World Bank report from 2011 found that copper resources do not bring Zambia into the position of becoming a competitive copper manufacturer. The report says that regional demand would need to grow substantially to make fabrication commercially viable (ICG, 2014). Indeed, the export potential analysis finds the regional potential for copper wire being exhausted. Insulated wire, however, offers considerable growth potential, for instance, in the Kenvan market, which has grown faster than the world average. Zambia would enjoy a substantial tariff advantage over other major suppliers, like China.

Interviewed experts also considered inputs into the mining industry (steel-related products and grinding balls) as an area of interest for Zambian regional export development. The sector sees two to three new market entrants each year. The largest player is an Indian-Zambian joint venture, they say. Our analyses suggest that some iron- and steel-based products already have export potential.

* World Bank enterprise survey (2013). Sample size = 36 (7/33) firms of ISIC sector "Manufacture of other non-metallic mineral products" ("Manufacturing of basic metals"/"Manufacture of fabricated metal products, except machinery and equipment").

Yes

8% (10%/13%)

30% (13%/8%

92% (100%/97%)

42% (45%/26%)

6% (3%/5%)

Sector info*

National export priority?

Female labour participation:

Employment growth:

Prominence of SMEs:

Foreign ownership share:

Share of exporting firms:

With (European) demand being strong, others may be considered for product diversification. In light of a booming local and regional construction sector, cement was indicated as an opportunity sector as well.

Challenges to realize additional exports in mineral- and metal-based products: 57

- Locally available raw materials are not a huge advantage in a market where prices are set on global commodity exchanges,
- Additional inputs are costly to import,
- High freight costs.

⁵⁷ ICG (2013): An Enterprise Map of Zambia.

Table 91: Zambia's exported products with potential: Construction materials

	Total X potential	China		EU		East Afri	ca
Product	(US\$ thousand)	X potential (US\$ thousand)		X potential (US\$ thousand)		X potential (US\$ thousand)	unused potential
Refined copper and copper alloys, unwrought	4 005 588	2 078 313	45 %	313 456	3 2%	133 451	O 14%
Unrefined copper; copper anodes for electrolytic refining	2 509 661	2 032 898	O 29%	35 579	99%	2 749	O 25%
Cobalt mattes and other products and articles of cobalt (incl. waste	125 793	84 876	33%	7 850	42 %	1 415	99%
Copper wire	64 471	1 471	100%	7 030	100%	38 329	O 0%
Insulated wire and cable	29 841	1 273	100%	3 707	100%	15 124	● 72%
Ferro-alloys	8 713	158	O 25%	1 559	● 72%	2 233	● 70%
Unwrought lead	6 841	122	O 20%	405	100%	1 340	o 60%
Copper mattes; cement copper (precipitated copper)	6 158	4 230	O 0%	95	100%	-	_
Copper stranded wire, cables, plaited bands, not electr. insulated	4 488	119	100%	695	100%	2 651	1 42%
Copper plates, sheets and strips, of a thickness exceeding 0.15 mm	3 499	163	95%	314	100%	785	● 62%
Bars and rods of iron/non-al/s, nfw than forged, hr, hd,/hot-extrud	3 208	37	100%	235	100%	1 803	85%
Angles, shapes and sections of iron or non-alloy steel	2 547	8	100%	88	100%	1 454	80%
Copper bars, rods and profiles	2 011	79	100%	95	100%	69	1 47%

Note: The table lists products with a total export potential of more than US\$ 1 million.

Table 92: Zambia's related products for export diversification: Construction materials

	China		EU		East Afr	ica
Product	Market imports (US\$	Tariff	Market imports (US\$	Tariff	Market imports (US\$	Applied tariff and
	million) and growth	adv.*	million) and growth	adv.*	million) and growth	tariff adv.
Nickel matte, nickel oxide sinters	913 (-4%)	0 pp	1 278 (-5%)	0 pp	44 (-24%)	0% (0 pp)
Unwrought nickel	2 290 (-12%)	1 pp	6 656 (3%)	0 pp	24 (-12%)	0% (0 pp)
Unwrought aluminium	821 (-1%)	2 pp	20 314 (1%)	1 pp	149 (-3%)	0% (0 pp)
Pig iron and spiegeleisen in pigs	285 (-33%)	1 pp	1 779 (2%)	1 pp	2 (4%)	1% (0 pp)
Semi-finished products of iron or non-alloy steel	153 (-20%)	2 pp	8 462 (-3%)	0 pp	189 (19%)	1% (3 pp)
Unwrought zinc	1 268 (4%)	1 pp	4 175 (2%)	0 pp	144 (19%)	1% (0 pp)
Cements, portland, aluminous, slag, supersulfate and similar hydraulic c	53 (-21%)	4 pp	2 160 (1%)	0 pp	912 (3%)	0% (2 pp)
Unwrought tin	346 (-8%)	1 pp	1 420 (3%)	0 pp	32 (-5%)	0% (0 pp)
Ferrous prod. obtained by direct reduction of iron ore (minimum pure iron of 99.9)	294 (-24%)	1 pp	755 (0%)	0 pp	4 (-24%)	5% (0 pp)
Flat-rolled prod of iron or non-al/s wd>/=600mm, clad, plated or coated	2 780 (-4%)	5 pp	19 340 (-0%)	0 pp	1 086 (7%)	7% (5 pp)
Aluminium wire	48 (-1%)	7 pp	1 339 (5%)	2 pp	92 (0%)	0% (0 pp)
Beryllium, chromium, germanium, etc. and art of these metals, incl. waste and scrap	89 (0%)	4 pp	615 (-3%)	1 pp	6 (-14%)	0% (0 pp)
Nickel powders and flakes	88 (2%)	4 pp	259 (-2%)	0 pp	3 (-21%)	0% (0 pp)

EXPORT POTENTIALS OF ETHIOPIA, KENYA, MOZAMBIQUE AND ZAMBIA

Copper mattes, cement copper (precipitated copper)	252 (-17%)	1 pp	166 (-17%)	0 pp	1 (-53%)	0% (0 pp)
Iron and non-alloy steel in ingots or other primary forms, nes	25 (12%)	2 pp	246 (11%)	0 pp	9 (17%)	2% (0 pp)
Hand saw, blade for saw (including slitting, slotting and toothless saw blades)	159 (5%)	7 pp	1 364 (4%)	1 pp	48 (5%)	0% (1 pp)
Nickel plates, sheets, strip and foil	227 (-9%)	6 pp	624 (5%)	0 pp	2 (-1%)	0% (1 pp)
Lead plates, sheets, strip and foil; lead powders and flakes	5 (-0%)	6 pp	200 (4%)	0 pp	10 (-19%)	6% (1 pp)
Zinc dust, powders and flakes	19 (1%)	5 pp	93 (-7%)	0 pp	4 (-32%)	0% (0 pp)
Molybdenum and articles thereof, incl. waste and scrap	55 (-1%)	3 pp	297 (2%)	1 pp	3 (-12%)	0% (0 pp)
Cadmium and articles thereof, including waste and scrap	21 (-2%)	4 pp	18 (-25%)	0 pp	0 (-10%)	0% (0 pp)
Bars and rods, hot-rolled, in irregularly wound coils, of other alloy steel	174 (5%)	3 pp	1 351 (1%)	0 pp	46 (40%)	1% (2 pp)
Ferrous waste and scrap; re-melting scrap ingots or iron or steel	3 731 (-10%)	0 pp	17 270 (-1%)	0 pp	44 (-1%)	0% (13 pp)

Note: The table lists products of the sector that are among the 10% easiest to reach given the country's current supply capacities, sorted according to the global diversification rank. * Applied tariff is 0% for all products in this table.

Zambia finally has a small potential to export surveying instruments. Most of this potential is in the regional market. Of the US\$ 1.4 million in export that may be realized, 70% are yet to be tapped. Botswana, where photogrammetric surveying instruments and appliances account for a relatively high share in total imports, offers the best chances for export success.

4.5. New sectors with export potential

In addition to established sectors with export potential and related diversification opportunities, the four PIGA countries may become able to diversify into new areas unrelated to current supply capacities. These new products may be developed with the help of FDI from China, a partner in the PIGA project. China is likely to invest in areas where it has substantial export experience and where it finds promising demand and market access conditions in Europe and in the regional market. Accordingly, the products and sectors featured in this section have two common characteristics:

- 1) China has a comparative advantage in these products (corrected and dynamic RCA > 1).
- 2) The products are among the top 5% in terms of demand and market access conditions in the EU and the regional market for each country.

Tables 93 and 94 list products that meet these criteria, in the EU and in the regional market. They contain information about the strength of Chinese RCA, data about market imports and growth as well as the tariff advantage (or disadvantage) PIGA countries face when exporting to these markets. As the EU grants duty-free access to the four PIGA countries, they all enjoy the same preferential margin over competitors. Yet the "demand potentials" they are confronted with differ, because: (i) Their geographic positions enable them more or less to transport distance-sensitive goods to the end market, and, more importantly, because (ii) They have weaker or stronger established trade links to certain EU countries that drive these demand potentials. This explains why, despite identical demand and tariff conditions, the demand potential ranks differ. A lower rank indicates better export opportunities given demand, tariffs, distances and established trade relations.

Note that enabling factors other than China's comparative advantage and market demand and access conditions are not accounted for in this analysis. The local availability of natural resources or production factors, whether in the form of capital, labour or land, ultimately influence the success of the investment. In the light of lacking information about the type and extent of Chinese investments, the purpose of this section, however, is to only show market opportunities feasible for Chinese investment. They may take the form of Greenfield investments needing substantial input from the investor or of joint ventures with a local partner that may already be active in the sector.

4.5.1. Opportunities with export potential to the EU

Due to the fact that the four PIGA countries find identical demand and tariff conditions in the EU market, there is a big overlap of the products suggested for investment. Many products broadly fall into the manufacturing sector, where European demand in large and where China has strong comparative advantages. Other sectors, for instance, apparel and agro-processing, benefit from the strong tariff advantages PIGA countries enjoy when exporting to the EU. China, which faces MFN tariffs in the EU, could take advantage of these favourable market access conditions through foreign investment.

Ethiopia

Thanks to very large EU demand, different electronic assembly products seem attractive for Chinese investment into Ethiopia (data-processing machines, telephone sets, printers, receivers and cameras). Demand for metals is similarly high, but these products are overall a bit less promising, as many European markets tend to import from neighbouring countries, which gives African exporters a disadvantage in terms of transport costs.

For leather articles and footwear, Ethiopia faces demand growth and a significant tariff advantage over non-LDC competitors in the EU. Here, investors could additionally benefit from an established leather and clothing industry with locally available production inputs, skilled workers and basic infrastructure. A final set of products falls into the category "chemicals and plastics". Rubber tyres seem particularly interesting, because the large and growing demand potential encounters Ethiopian attempts to expand rubber tree plantations. ⁵⁸

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⁵⁸ www.nazret.com/blog/index.php/2014/04/21/ethiopia-eyes-untapped-rubber-production.

Kenya

Prepared fowl meat turns out to be an interesting option for foreign investment into Kenya. Current suppliers of the product pay a tariff rate that is – on average – 26 pp higher than the one charged to Kenya. Exports from China face an MFN tariff of between 23% and 71% depending on the exact tariff line. Even though demand and tariff conditions are the same for all four PIGA countries, fowl meat only ranks among the top 5% of products with greatest demand potential in Kenya. The reason is that Kenya has very strong trade links with the United Kingdom, the EU's principal market for fowl meat. These supplier-buyer linkages turn Kenya into an attractive destination for Chinese FDI. Chinese investors will also benefit from a considerable head count of 42,413 chickens and a developed food industry in Kenya.

As opposed to other PIGA countries, Kenya also faces relatively high demand potential in machinery parts and jewellery exports to the EU. In the case of jewellery, Kenya again benefits from high demand in the United Kingdom, Kenya's major trade partner in the EU. In the case of machinery parts, the distance component also plays a role. While most other European countries import the product from nearby suppliers, the United Kingdom, where Kenya often has the best opportunities due to strong trade links, also imports machinery parts from distant suppliers, like China or the United States. This implies that exports from Kenya are less disadvantaged in terms of transportation costs as compared to exports from other PIGA countries that might have stronger linkages with continental European countries.

Other products with investment potential are similar to those identified for Ethiopia. A few items, like plastic furniture or game articles, have significant demand potential as well, but do not strictly apply to the notion of Greenfield investment, because Kenya already has export potential in its own capacity (see section 4.2.). ⁵⁹ Yet, with the help of foreign investment, existing production capacities could be expanded.

Mozambique

Most products suggested for Greenfield investment in Mozambique overlap with those suggested to the other PIGA countries. Yet a few differences are worth noting: in contrast to Ethiopia and Kenya, Mozambique currently does not have an operating textile or leather industry. However, with significant investment, it may experience a revival. Demand in the EU is large and still growing and the tariffs applied to Mozambique are between two and 10 percentage points lower than those applied to China.

Due to close trade relations with Spain and Belgium – the top EU importers of engines after Germany – Mozambique also appears to be suitable for investment into this sector. These countries, however, have a tradition to import directly from European neighbours (Belgium) or from the United States and Mexico (Spain).

Zambia

Like for the other countries, most opportunities for Greenfield investment can be found in rubber and plastics, electronic assembly, apparel and leather articles and a few other manufactured items. Flat-rolled products of stainless steel rank better in Zambia than in any other PIGA country. As we abstract in this section from local supply conditions, note that this finding only indirectly results from the fact that Zambia has already developed an export capacity in the iron and steel sector in its own right. A number of reasons turn Zambia into a top destination for Chinese investment: first, among all EU countries, Zambia has the closest export ties with Italy, which is the EU's fourth-largest importer of flat-rolled stainless steel products. Second, and in contrast to other European markets, Italy also imports the product from distant suppliers, notably from China. Close linkages to a major market where Zambia does not face a strong distance disadvantage turn the country into the most attractive location for foreign investment into flat-rolled products of stainless steel. Other enabling factors include the fact that Zambia already sells related products like ferro-alloys to Italy and that China can draw from its experience with investments into Zambia's mining industry.

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⁵⁹ The corresponding ranks have been removed.

Table 93: FDI-trigged product diversification with high potential in the EU market

						Ra	nk	
Sector	Product	China's RCA	Market imports (US\$ million) and growth	Tariff adv.	Ethiopia	Kenya	Mozambique	Zambia
Agro- based	Fowl (gallus domesticus) meat, prepared and preserved	1.1	3 581 (6%)	26 pp	_	23	-	_
pu	New pneumatic tyres, of rubber	1.9	32 479 (3%)	1 pp	27	32	28	30
als	Articles of plastic nes Heterocyclic compounds with nitrogen hetero-atom; nucle	3.6	24 769 (6%) 21 407 (4%)	1 pp	43 23	38 37	40 22	41 32
emicals a plastics	Plastic packing goods or closures stoppers, lids, caps, etc.	1.6 1.6	19 861 (4%)	1 pp 1 pp	23	61	_	32
Che	Oxygen-function amino-compounds	2.4	7374 (5%)	2 pp	37	-	12	
	Automatic data processing machines; optical reader, etc.	4.7	98 453 (1%)	2 pp 0 pp	1	1	5	5
	Telephone sets (excl. line telephone sets) and other vo	4.0	86 629 (7%)	0 pp	3	3	6	6
	Parts and accessories for printers, copying machines, c	2.6	52 582 (-3%)	0 pp	7	7	8	11
	Insulated wire and cable	2.2	38 077 (5%)	0 pp	31	28	44	45
	Television receivers (incl. video monitors and video projectors)	3.2	37 599 (-5%)	1 pp	14	11	24	24
	Diodes and transistors, and sim semiconductor devices, etc.	2.7	33 214 (-19%)	0 pp	9	12	9	8
	Electrical app. for switching (excl. fuse, switches, etc.), not ex	1.5	28 792 (3%)	0 pp	41	40	55	53
	Other furniture and parts thereof	3.1	28 446 (2%)	0 pp	38	22	45	51
	Parts of telephone sets and other transmission apparatus	3.7	27 927 (-6%)	1 pp	16	17	29	36
	Seat (o/t dentists' and barbers' chairs, etc.) and parts thereof	3.9	26 469 (4%)	0 pp	35	25	42	56
	Tap, cock, valve for pipe, tank for the like, incl. pressure	1.5	25 758 (5%)	1 pp	47	39	39	37
	Electric transformer, static converter (for example, rect	2.9	24 302 (-0%)	1 pp	21	27	46	40
	Cruise ship, cargo ship, barges	2.6	19 913 (-15%)	0 pp	36	64	20	21
	Other printers, copying and facsimile machines, computer	3.9	19 850 (-0%)	1 pp	12	15	36	46
rin	Prepared unrecorded media for sound record (tapes)	1.2	17 140 (-3%)	0 pp	61	56	-	-
Manufacturing	Electric instantaneous water heater, space htg, hair dryers	4.4	16 531 (4%)	1 pp	50	36	49	42
nufa	Machinery parts (hd 84.25 to 84.30)	1.0	16 528 (4%)	0 pp	-	70	-	-
Ma	Electric motors and generators (excluding generating se	2.3	15 471 (4%)	1 pp	-	-	-	57
	Lamps and lighting fittings nes, signs, nameplates, illumi	4.8	14 654 (9%)	1 pp	33	34	48	50
	Ball or roller bearings	1.3	13 487 (4%)	2 pp	66	-	_	_
	Engines, spark-ignition reciprocating or rotary int. co	1.9	13 348 (2%)	1 pp	-	-	62	-
	Other toys, scale model (puzzles of all kinds, stuffed t	4.7	13 053 (5%)	1 pp	48	24	38	39
	Television cameras, transmission app. for radio-telephony	2.1	12 431 (-6%)	3 pp	15	13	33	43
	Articles of jewellery and parts thereof	1.7	11 734 (8%)	1 pp	_	48	-	20
	Air conditioning machines, with motor-driven elements	3.5	11 202 (1%)	1 pp	- E4	- E4	52	38
	Articles for funfair, table and parlour games, and auto bowling Electric accumulator	4.4 2.5	9 840 (-9%) 9 548 (6%)	0 pp	56 63	54 67	_	_
	Articles and equip. for gymnastics, athletics or sports/out	4.2	8 009 (3%)	1 pp 1 pp	72	53	_	_
	Mic. & stand, loudspeakers; headphones & earphones, sound	4.2	7 393 (6%)	1 pp	64	71		
	Motorcycles, side-cars	4.4	6 957 (-1%)	3 pp	59		56	
	Parts and accessories of motorcycles and cycles	3.0	6 672 (5%)	3 рр 2 рр	67	69	68	60
	Radar apparatus, radio navigational app. and radio remote co	1.6	6 509 (2%)	2 pp 1 pp	69	-	-	-
	Flat-rolled prod of iron or non-al/s wd>/=600mm, clad., p	2.1	19 340 (-0%)	0 pp	-	_	60	55
als	Flat-rolled products of stainless steel, of a width of	2.0	14 525 (2%)	0 pp	65	_	59	27
Metals	Iron and steel screws, bolts, nuts, coach-screws, etc.	1.2	13 790 (5%)	1 pp	70	66	_	_
	Ferro-alloys	2.2	10 750 (-1%)	0 pp	51	59	50	34
	Articles of apparel, accessories, not knit or crochet	3.8	85 781 (4%)	4 pp	5	4	4	2
	Articles of apparel, accessories, knit or crochet	4.3	84 279 (4%)	4 pp	4	2	3	4
es	Footwear, upper of leather	2.7	25 438 (4%)	2 pp	18	20	21	19
Textiles	Other made textile articles, sets, worn clothing, etc.	4.7	18 842 (4%)	3 pp	20	16	26	23
Te	Trunks, suitcases, camera cases, handbags, etc., of leather	5.0	17 243 (7%)	3 pp	17	18	13	10
	Footwear nes, outer soles and uppers of rubber or plast	6.0	10 344 (7%)	10 pp	19	21	14	26
	Footwear, upper of textile mat.	5.0	8 746 (12%)	9 pp	26	30	23	31

Note: The table is sorted according to market imports. Cells containing no information (for ranks) indicate that the product is not within the top 5% of demand potential for that country.

4.5.2. Opportunities with export potential to East Africa

Twenty-seven out of the 48 products that have been identified with high demand potential in the EU also rank among the top 5% best opportunities in the regional market. They mostly relate to electronic assembly, metals, other manufactured items and apparel and footwear. Yet there are important structural differences. Applied tariffs are generally positive and, because the four PIGA countries are members of different regional trade agreements (section 2.2.), in addition to supplier-buyer linkages and transportation costs, the tariff indicator plays a role in determining which country is most attractive for FDI. As a result, the products are more dispersed across countries and sectors than in the case of the EU as the target market.

Ethiopia

Ethiopia is the only PIGA country where preserved tomatoes and carrots rank among the top 5% of products with demand potential in the regional market. In the case of tomatoes, the 25% average regional tariff is not to Ethiopia's disadvantage, as other suppliers generally face even higher duties. Yet, despite the fact that Kenya, Mozambique and Zambia enjoy larger margins, Ethiopia turns out to be the most promising destination for agro-based investments, because it has strong links and is adjacent to Somalia, where tomatoes account for 0.29% of a large share of total imports and where the share of carrots has grown rapidly over the past five years.

Other products with relatively high regional demand potential only for Ethiopia comprise batteries, mattresses, ceramics, glassware, iron- and steel-based household articles and fabrics made of artificial staple fibres. For the last product, investors could benefit from an established textile industry already providing some of the necessary trade infrastructure and production skills and equipment. In Somalia, which is Ethiopia's largest trade partner in East Africa, printed woven fabrics of artificial fibres account for a particularly large share of total imports (1.44%).

Kenya

Kenya already registers small exports in a number of products indicated as having great regional demand potential and, therefore, suggested for foreign investment. Electronics, machinery parts, glass and paper containers, and prefabricated buildings fall into this category. So far, Kenya has exported prefabricated buildings, for instance, to Somalia and the United Republic of Tanzania, but unexploited potentials also exist in Zambia, where the local construction boom has resulted in a strongly growing demand for the product. Kenya exports prefabricated buildings free of duty to Zambia, giving it a tariff advantage over competitors. Together with a growing, but so far still small RCA, this has resulted in a modest regional export potential currently standing at US\$ 1.5 million (see section 4.2.7.). Yet data also suggests that Kenya itself is a large importer of the good, meaning that local production is currently insufficient to meet local demand. Investment from China is expected to give a boost to the sector, which could increase production for local and regional sales substantially.

Other products suggested for Greenfield investment particularly into Kenya include tubes and pipes of plastic or of iron and steel. Both products are already exported in minor quantities. Demand is high in South Africa and Angola. However, Kenya may benefit more from close trade ties with the United Republic of Tanzania (for iron and steel pipes) and the DRC (for plastic pipes), where demand is a bit lower, but fast-growing.

Mozambique

Thanks to substantial tariff cuts among SADC member states, Mozambique and Zambia often enjoy greater tariff advantages in East African markets than Ethiopia and Kenya.

Tariffs that are on average 19 (20) percentage points lower than those charged to competitors lead, for instance, in knitted (non-knitted) apparel, to a high regional demand potential, making Mozambique an interesting destination for foreign investment. In South Africa, the most important market for garments in the region, Mozambique even enjoys DFQF access. Other products from the sector with a unique top 5% rank for Mozambique are wigs, eyebrows and eyelashes. The products are already significantly exported to the region and unused potential worth more than US\$ 10 million remains (see section 4.3.3.). Ninety per cent of it can be found in South Africa. With total South African imports of wigs, eyebrows and eyelashes of US\$ 62 million, substantial increases in exports even beyond the identified potentials seem possible. In the past five years, however, Mozambique has seen its comparative advantage decline. Chinese investment may help reverse this trend.

Another product that ranks better in Mozambique (and in Zambia) due to large tariff advantages is pneumatic tyres of rubber. China would benefit from the strong tariff advantage of 10 (14) percentage points that Mozambique (Zambia) enjoys in the regional market over other competitors, including China. The product would also fit squarely into government-supported efforts to plant rubber trees in both countries.

Zambia

In addition to SADC, Zambia is also member to the COMESA FTA, giving it a preferential margin over Mozambique when exporting to big regional markets, like Kenya, for instance. For that reason, products that are generally charged with high tariffs enjoy particularly good demand potential for exports from Zambia, turning the country into a very attractive destination for apparel, rubber or leather sector investments.

Zambia also benefits from strong trade links with South Africa, the key market, at least in the southern cone of Africa. These ties also make Zambia an excellent destination for Greenfield investment even in sectors where tariff differences hardly play a role, such as the electronic assembly of telephone sets or data-processing machines.

Table 94: FDI-trigged product diversification with high potential in the regional market

			Market			Applied to	ariff and	tariff adv. faced	by:		
Sector	Product	China's RCA	imports (US\$ million) and	Ethiopia	Rank	Kenya	Rank	Mozambigue	Rank	Zambia	Rank
			growth	Еппоріа	Kalik	Kenya	Kalik	wozambique	Kalik	Lambia	Kalik
	Trunks, suitcases, camera cases, handbags, etc., of leather	5.0	580 (10%)	23% (5 pp)	58	22% (5 pp)	_	10% (18 pp)	30	4% (23 pp)	26
Agro- based	Tomatoes nes, prepared or preserved, other than by vinegar	2.6	117 (11%)	25% (4 pp)	64	24% (6 pp)	-	22% (7 pp)	_	16% (14 pp)	-
Ą	Carrots and turnips, fresh or chilled	2.0	8 (8%)	18% (-5 pp)	67	13% (-1 pp)	_	15% (-3 pp)	-	13% (0 pp)	_
CS	New pneumatic tyres, of rubber	1.9	1 787 (6%)	16% (-0 pp)	22	13% (3 pp)	13	5% (10 pp)	9	1% (14 pp)	8
asti	Mineral or chemical fertilizers, nitrogenous	1.7	884 (9%)	1% (-0 pp)	62	0% (-0 pp)	39	0% (0 pp)	31	0% (0 pp)	44
Chemicals & plastics	Insecticides, fungicides, herbicides packaged for retail	1.1	802 (8%)	3% (-1 pp)	68	3% (-0 pp)	38	2% (1 pp)	44	1% (1 pp)	51
8 S	Plastic packing goods or closures, stoppers, lids, caps, etc.	1.6	644 (9%)	18% (-4 pp)	36	14% (-1 pp)	10	13% (1 pp)	49	9% (5 pp)	53
lica	Article of plastic nes	3.6	614 (10%)	13% (0 pp)	45	13% (1 pp)	52	9% (5 pp)	-	5% (9 pp)	62
Ten	Tubes, pipes and hoses and fittings thereof of plastics	1.0	490 (6%)	19% (-3 pp)	-	16% (-0 pp)	43	16% (2 pp)	-	12% (5 pp)	-
Ö	Unsaturated acyclic and cyclic monocarboxylic acid and anhy	2.4	131 (-14%)	0% (0 pp)	-	0% (0 pp)	_	0% (0 pp)	59	0% (0 pp)	_
	Telephone sets (excl. line telephone sets) and other vo	4.0	4 167 (-1%)	1% (0 pp)	24	1% (1 pp)	17	1% (0 pp)	8	1% (1 pp)	7
	Automatic data processing machines, optical reader, etc.	4.7	2 249 (2%)	0% (-0 pp)	-	0% (-0 pp)	49	0% (0 pp)	11	0% (0 pp)	10
	Self-propelled bulldozer, angledozer, grader, excavator, etc.	1.1	2 039 (11%)	1% (-0 pp)	51	2% (-0 pp)	23	1% (0 pp)	18	1% (1 pp)	21
	Machinery parts (hd 84.25 to 84.30)	1.0	1 926 (5%)	4% (-1 pp)	-	3% (1 pp)	22	2% (2 pp)	19	1% (2 pp)	20
	Taps, cocks, valves for pipe, tank for the like, incl. pressure	1.5	1 200 (4%)	7% (-2 pp)	-	6% (-2 pp)	-	2% (3 pp)	29	1% (3 pp)	29
	Electric transformer, static converter (for example, rect	2.9	1 168 (5%)	3% (-1 pp)	-	4% (-1 pp)	44	1% (1 pp)	35	1% (2 pp)	32
	Other furniture and parts thereof	3.1	1 152 (15%)	18% (1 pp)	31	17% (2 pp)	26	13% (6 pp)	25	8% (11 pp)	23
	Insulated wire and cable	2.2	1 146 (7%)	13% (-2 pp)	44	11% (1 pp)	18	10% (3 pp)	17	6% (7 pp)	15
	Parts and accessories for printers, copying machines, c	2.6	1 112 (-5%)	1% (-0 pp)	-	1% (0 pp)	-	1% (0 pp)	33	1% (0 pp)	30
	Electric generating sets and rotary converters	2.1	1 057 (26%)	2% (-0 pp)	49	3% (-0 pp)	62	1% (0 pp)	54	1% (1 pp)	50
	Machinery for sorting, screening, washing, agglomerating and shaping	1.5	1 047 (7%)	2% (0 pp)	_	2% (0 pp)	28	2% (0 pp)	55	1% (1 pp)	52
бL	Parts of telephone sets and other transmission apparatus	3.7	874 (3%)	5% (1 pp)	_	3% (2 pp)	67	3% (3 pp)	40	1% (5 pp)	38
Manufacturing	Refrigerators and freezers, etc.	2.0	772 (5%)	14% (-3 pp)	56	11% (-0 pp)	40	5% (6 pp)	26	2% (9 pp)	33
fac	Board and panels, equipped with two or more switches, fuses	1.1	731 (7%)	8% (-2 pp)	-	6% (-1 pp)	56	3% (3 pp)	-	2% (4 pp)	68
anu	Electrical app. for switching (excl. fuses, switches, etc.), not excl.	1.5	730 (4%)	6% (-2 pp)	-	6% (-2 pp)	-	2% (2 pp)	48	1% (3 pp)	42
Ž	Television receivers (incl. video monitors and video projectors	3.2	717 (2%)	10% (-0 pp)	-	9% (1 pp)	-	4% (5 pp)	41	3% (7 pp)	39
	Motorcycles, side-cars	4.4	690 (7%)	13% (2 pp)	-	13% (4 pp)	42	14% (2 pp)	-	11% (5 pp)	67
	Public transport type passenger motor vehicles	1.5	688 (2%)	16% (1 pp)	-	12% (5 pp)	47	6% (11 pp)	60	3% (13 pp)	64
	Other printers, copying and facsimile machines, computer	3.9	656 (1%)	2% (0 pp)	-	1% (0 pp)	-	1% (0 pp)	-	1% (1 pp)	63
	Seat (o/t dentists' and barbers' chairs, etc.) and parts thereof	3.9	616 (11%)	14% (-0 pp)	-	13% (0 pp)	_	6% (7 pp)	50	3% (11 pp)	49
1	Trailers and semi-trailers, other vehicles not mechanically	2.2	504 (11%)	8% (-2 pp)	-	6% (-0 pp)	41	3% (3 pp)	-	2% (4 pp)	-
	Electronic instantaneous water heater, space htg, hair dryers	4.4	498 (4%)	13% (-3 pp)	-	12% (-2 pp)	-	3% (8 pp)	57	1% (9 pp)	56
	Electric accumulator	2.5	403 (8%)	7% (2 pp)	-	3% (5 pp)	68	7% (2 pp)	-	2% (7 pp)	-
	Packing containers, of paper, paperboard, cellulose wad	1.8	356 (4%)	13% (-3 pp)	-	8% (1 pp)	24	11% (-0 pp)	56	3% (6 pp)	66
1	Prefabricated buildings	1.5	325 (2%)	13% (4 pp)	18	13% (6 pp)	63	15% (3 pp)	_	12% (6 pp)	-
	Primary cells and primary batteries	3.4	286 (7%)	11% (6 pp)	63	7% (9 pp)	-	12% (6 pp)	-	3% (14 pp)	-
	Mattress supports, mattresses, quilts, etc.	5.0	268 (5%)	18% (-5 pp)	66	17% (-4 pp)	_	6% (8 pp)	_	3% (10 pp)	_

	Structures (rods, angle, plates) of iron and steel nes	2.0	1 349 (10%)	12% (0 pp)	37	10% (2 pp)	9	11% (2 pp)	53	8% (6 pp)	35
	Flat-rolled prod of iron or non-al/s wd>/=600mm, clad, p	2.1	1 086 (7%)	8% (1 pp)	21	4% (4 pp)	8	9% (-0 pp)	34	3% (5 pp)	40
tals	Articles of iron or steel nes	1.6	625 (4%)	9% (-2 pp)	60	7% (-0 pp)	64	6% (1 pp)	-	4% (4 pp)	-
me	Tubes, pipes and hollow profiles of iron or steel, nes	1.1	472 (5%)	14% (-2 pp)	_	9% (3 pp)	35	9% (3 pp)	-	6% (6 pp)	-
and metals	Glazed ceramic flags and paving, hearth and wall tiles, mosaic cub	2.8	398 (13%)	19% (1 pp)	70	16% (4 pp)	-	13% (9 pp)	-	8% (13 pp)	-
	Flat-rolled products of iron or non-alloy steel wd>/=600mm, cr, n	1.0	274 (6%)	5% (10 pp)	53	4% (10 pp)	-	15% (-1 pp)	-	3% (10 pp)	-
Minerals	Glassware used for table, kitchen, toilet, office, etc.	4.1	246 (6%)	9% (9 pp)	61	8% (9 pp)	-	15% (3 pp)	-	3% (14 pp)	-
Ĭ	Iron and steel tables and household articles	4.9	223 (7%)	17% (2 pp)	69	15% (4 pp)	-	9% (10 pp)	-	3% (15 pp)	-
	Carboy, bottle and other containers of glass	1.3	189 (0%)	12% (-5 pp)	-	6% (-1 pp)	69	9% (-2 pp)	-	3% (3 pp)	-
	Wire of iron or non-alloy steel	2.2	136 (7%)	5% (0 pp)	57	4% (1 pp)	-	5% (1 pp)	-	3% (3 pp)	_
	Articles of apparel, accessories, knit or crochet	4.3	1 889 (8%)	31% (-5 pp)	19	31% (-4 pp)	19	7% (19 pp)	4	3% (23 pp)	3
	Articles of apparel, accessories, not knit or crochet	3.8	1 814 (9%)	32% (-4 pp)	23	32% (-3 pp)	15	8% (20 pp)	2	2% (25 pp)	2
	Other made textile articles, sets, worn clothing, etc.	4.7	1 713 (7%)	18% (3 pp)	17	13% (7 pp)	12	12% (9 pp)	13	4% (17 pp)	12
(0	Footwear nes, outer soles and uppers of rubber or plastic	6.0	1 083 (11%)	20% (5 pp)	12	18% (7 pp)	11	11% (14 pp)	16	3% (21 pp)	16
Textiles	Woven fabrics of synthetic filament yarn (incl. hd no. 54.04)	4.6	518 (6%)	14% (6 pp)	42	15% (6 pp)	-	11% (11 pp)	-	4% (18 pp)	57
Lex	Footwear, upper of textile mat	5.0	395 (17%)	22% (-2 pp)	_	21% (-1 pp)	-	3% (18 pp)	28	1% (19 pp)	27
'	Woven cotton fabrics, 85% or more cotton, weight less t	5.2	381 (9%)	17% (7 pp)	_	12% (11 pp)	58	13% (12 pp)	_	6% (18 pp)	-
	Footwear, upper of leather	2.7	350 (6%)	26% (-4 pp)	_	25% (-3 pp)	-	3% (19 pp)	36	1% (21 pp)	36
	Wigs, eyebrows, eyelashes, etc.	6.7	229 (34%)	23% (-2 pp)	_	21% (0 pp)	-	13% (9 pp)	65	11% (11 pp)	-
	Woven fabrics of artificial staple fibres	5.5	71 (17%)	7% (12 pp)	32	8% (10 pp)	-	16% (3 pp)	-	1% (17 pp)	-

Note: The table is sorted according to market imports. Cells containing no information (for ranks) indicate that the product is not within the top 5% of demand potential for that country.

5. Summary

Tables 95, 96, 97 and 98 summarize the results of the export potential analyses and validation missions. For each PIGA country, a range of existing products from the agricultural and the manufacturing sectors have been identified as interesting for potential intervention. Many of these existing value chains offer possibilities to diversify, for instance, from raw hides and skins to finished leather articles or from oilseeds and nuts to edible oils. FDI-triggered diversification opportunities with high demand potential also exist and are presented in italics. These are products where China already possesses a comparative advantage and will, therefore, be in a strong position to invest. Many of these products broadly fall into the manufacturing sector, with a focus on electronic assembly, or into the textile and leather sectors. Underlined products have been emphasized by interviewed experts during the validation missions. In a nutshell, the findings for each country are as follows.

Ethiopia has strong capacities to export agro-based products. As the PIGA country with the most livestock, many of its products with export potential are animal-based. Ethiopia also has potential to export nuts and oilseeds, pulses, spices, fresh fruits and vegetables, cut flowers and coffee. Ethiopia finds diversification opportunities up the value chain, notably in the production of edible oils and leather articles. Its current prospects for manufactured articles are limited to textiles and semi-processed wood. To engage in more value-added activities, (Greenfield) foreign investment would be needed. With the help of Chinese investors, Ethiopia may, for instance, exploit opportunities in synthetic fabrics, insecticides and fertilizers or batteries that face promising demand conditions in the regional market.

As the most advanced of the PIGA economies, *Kenya's export opportunities are spread across the entire agricultural and manufacturing value chains*. For instance, Kenya has potential to export food and beverages like juice blends, malt beer or sugar confectionary to the regional market, or canned tuna or pineapples to the EU. Kenya's Industrial Transformation Programme forcefully supports the further development of the agro-processing sector. Kenya also has possibilities to grow and further diversify its manufactured exports. It already has high export potentials in paper, plastic and glass packaging as well as in washing liquids, insulated wire and aluminium tables, notably to the regional market. Other products with excellent regional demand potential are also already produced in small quantities (for instance, mattresses and prefabricated buildings). The production of these items could be expanded with the help of Chinese investment.

While aluminium and other minerals dominate total exports, Mozambique also has a sound agricultural base. It finds potential to grow its exports in the fishery sector, along the entire oilseed value chain, in pulses, bananas, cereals and sugar cane. Products for export diversification include canned tuna, fish meal, rice and coffee. The extractive sector offers options to diversify up or downstream, for instance, into construction materials. With the help of foreign investment, Mozambique's apparel sector may be revived. Finally, since much of country's surface is covered by forests, another interesting diversification opportunity could lie in the development of value-added wood products, such as pulp (for exports to the EU) or packaging paper (for exports to the regional market).

Zambia's economy is strongly focussed on copper, which represents a high share of total exports. Diversification is, thus, a priority for the country. To satisfy national copper demand, China already runs large-scale investment projects in Zambia. Copper-related industries such as electronics or industrial machinery also offer investment opportunities, as regional and European demand is high. The agricultural sector may be an alternative source of future export revenues: oilseeds and oilcake, cereals and sugarbased products have great potential for regional exports. Rubber and related products, such as pneumatic tyres or footwear, also face significant demand and favourable market access conditions in the EU.

Table 95: Ethiopia's sectors with export potential in key markets

		Existing product	s with potential	New products for	or diversification
		EU	East Africa	EU	East Africa
		Goat meat	<u>Livestock</u>	Froze	n cuts
	Animal-based				Milk powder
	7 ii iii ii dadda	Honey and beeswax			
		Leather (footwear)		<u>Leather bag</u>	<u>is and cases</u>
<u>Б</u>		Nuts, <u>oi</u>	<u>lseeds</u>	Edibl	e oils
Agro-processing		Soya beans			
90 80		<u>Puls</u>	<u>ses</u>		
- 0-		Spic	ces		
Ag	Vegetable- based	Fresh and chille	ed vegetables		Prepared tomatoes and carrots
		Fresh and prepared fruits		Dried fruits, juices	
		Coff	ee		
		<u>Floriculture</u>			
		Cotton yarn and apparel		Wool- and other woven fabrics	
	Textiles			Car	pets
				Footwear (with textile materials)	Synthetic fabrics
	Wood-based	Sawn and chipped wood		Wood pulp	, marquetry
				Footwear (with rubl	ber, plastic material)
	Rubber and plastics			Plastic articles	s and furniture
ring				Rubbe	er tyres
Manufacturing	Chemicals			Chemical compounds	Insecticides and fertilizers
Man	Electronics				Batteries
_	Liectionics			Electronic	assembly
	Metal-based			Iron and steel (household) articles	Ceramics and glassware
					Mattresses
	Miscellaneous			Vehicle	e (parts)
	manufactured articles			Sport, game equipment, toys	
					Prefabricated buildings

Note: Products in italics are suitable for Greenfield investment. Underlined products have been emphasized in stakeholder interviews.

Table 96: Kenya's sectors with export potential in key markets

		Existing produc	ts with potential	New products for	or diversification			
		EU	East Africa	EU	East Africa			
	Animal-based	Canned tuna, frozen fish fillets		Preserved shrimps, fish oils				
				Fish	meal			
				Fowl meat				
		Hides and skins		<u>Leather articles</u> (footwear, apparel, <u>bags)</u>				
	Vegetable- based	<u>Nuts</u>	Vegetable fats and margarine	Sesame see	ds, edible oils			
ing		Pulses						
sess		Fresh or chille	ed vegetables					
Agro-processing		Canned pineapples and juice	Juice blends					
Agi		Mangoes		Ban	anas			
			Malt beer		Cereal flour, uncooked pasta			
			Chewing gum and sugar confectionary					
		Tea and	d coffee					
			Spices					
		<u>Floriculture</u>						
		Sowing	seeds					
	Textiles	Арр	arel	Cotton yarn and mixed fabrics				
		Vegetable fibres	Second-hand clothing	Carpets				
	Chemicals	Footwear (with plast	tics, rubber material)	Rubbe	er tyres			
	and plastics	Plastic packaging	g, plastic furniture	Plastic articles				
			Soap and organic washing liquids	Chemical compounds	Fertilizers, insecticides			
ō			Petroleum jelly					
Manufacturing	Wood-based		Paper packaging	Sawn and chipped wood, wood pulp				
anuf	Stones		Glass containers					
Ĕ				Jewellery articles				
	Electronics		Insulated wire					
		Electronic	assembly					
	Metal-based		Flat-rolled products of iron	Other iron and	d <u>steel articles</u>			
		Machine	ery parts					
			Aluminium tables and household articles					

Other manufactured products		Prefabricated buildings Mattresses		
	Game equipment	Ballpoint pencils	Toys, sport equipment	

Note: Products in italics are suitable for Greenfield investment. Underlined products have been emphasized in stakeholder interviews.

Table 97: Mozambique's sectors with export potential in key markets

		Existing products with potential		New products	for diversification
		EU	East Africa	EU	East Africa
		Frozen shrimps, lobster		Fish fillets	Whole frozen fish
	Animal-based			Fish meal,	canned tuna
٥ ت		Reptile and bovine leather		Leather articl	es and footwear
Agro-processing		Sesame seeds, nuts			
oce		Edibl	e oils		
o-pr		Pulses			
Agr	Vegetable-	Bananas		Pine	apples
	based	Cerea	l bran		Rice and other cereals
		Black	< tea	Co	offee
		Sugar cane a	and molasses		
		Cot	ton	Apparel, footwear	(with textile material)
	Textiles	Vegetable fibres			
			Wigs, eyebrows, eyelashes		
	Wood-based	Sawn and ch	nipped wood	Wood pulp	Paper packaging
	Metal-based	Unwrought aluminium, iron- and steel-based articles		Ferro	o-alloys
		Copper		Nickel	
ng				Plastic	furniture
cturi	Rubber and			Footwear (with rul	ober, plastic material)
Manufacturing	plastics			Rubb	per tyres
Маг				Plastic articles	Plastic packaging
	Chemicals			Chemical compounds	Insecticides, fertilizers
				Electron	ic assembly
	Electronics				Refrigerators and freezers
	Automotivo			Vehic	le (parts)
	Automotive			Engines	
	Other manufacturing			Toys	Machinery (parts)

Note: Products in italics are suitable for Greenfield investment. Underlined products have been emphasized in stakeholder interviews.

Table 98: Zambia's sectors with export potential in key markets

		Existing produc	ts with potential	New products for	or diversification
		EU	East Africa	EU	East Africa
				Frozen fish (fillets)	
	Animal-based			Fish	meal
ing		Reptile <u>leather</u>		<u>Leather article</u>	s and footwear
ess			Cottonseed oilcake	Soya bean oilcake	
proc		Peas			
Agro-processing	Vegetable- based		Maize		Wheat (flour), rice, grain sorghum
		Cut flowers			
		Sugar	<u>cane</u>		Chewing gums
		Cot	ton	Cotton yarn, wool	
	Textiles				with textile material)
				Twine, cord (with	rubber, plastics)
				Natural rubber	
	Dubbasand			Rubbe	er tyres
	Rubber and plastics			Footwear (with rub)	ber, plastic material)
				Plastic article	s and furniture
					Plastic packaging
ıring	Wood-based	Sawn and cl	nipped wood	Chemical wood pulp	
Manufacturing	Chemicals			Chemical compounds	Insecticides, fertilizers
Mar	Minanda	Copper (wire),	insulated wire	Nickel, zinc	<u>Cement</u>
	Minerals and metals	Cobalt			
		Iron and steel articles			
				Electronic	assembly
	Electronics				Refrigerators and freezers
	O41		Surveying instruments	Vehicle	e (parts)
	Other manufacturing		mstruments	Machine	ry (parts)
				Toys	

Note: Products in italics are suitable for Greenfield investment. Underlined products have been emphasized in stakeholder interviews.

Annex I Ethiopia's export products by sector

Table A.1: Vegetable products

Product	X value (in US\$ million)	Trade balance as a share	Top three destinations
	and growth (in %)	of total trade (in %)	
Coffee, not roasted, not decaffeinated	811 (6%)	100%	Germany, Saudi Arabia, United
			States of America
Sesamum seeds, whether or not broken	445 (16%)	100%	China, the State of Israel, Turkey
Vegetables nes, fresh or chilled	366 (18%)	100%	Somalia, Djibouti, United
3	, ,		Kingdom
Cut flowers and flower buds for bouquets,	276 (23%)	100%	The Netherlands, Belgium, Saudi
fresh	, ,		Arabia
Kidney beans and white pea beans, dried,	100 (32%)	100%	Pakistan, Yemen, India
shelled, whether or not skinned or split	(==,		
Chickpeas, dried, shelled, whether or not	34 (-6%)	100%	Pakistan, United Arab Emirates,
skinned or split			Sudan (North + South)
Cuttings and slips, unrooted	32 (17%)	95%	The Netherlands, Germany,
			Belgium
Broad beans and horse beans, dried, shelled,	27 (-2%)	100%	Sudan (North + South), Egypt,
whether or not skinned or split			Djibouti
Other oilseeds	27 (-6%)	100%	United States of America, China,
			United Kingdom
Potatoes, fresh or chilled nes	19 (62%)	100%	Somalia, Sudan (North + South),
			France

Table A.2: Live animals and animal products

Product	X value (in US\$ million)	Trade balance as a share of	Top three destinations
	and growth (in %)	total trade (in %)	
Live bovine animals	142 (22%)	100%	Somalia, Sudan (North + South), Egypt
Goat meat, fresh, chilled or frozen	58 (19%)	100%	United Arab Emirates, Saudi Arabia, the
			Kingdom of Bahrain
Live animals, nes	42 (15%)	88%	Egypt, Sudan (North + South), Libya
Sheep, live	23 (53%)	100%	Saudi Arabia, United Arab Emirates,
			Djibouti
Sheep carcasses and half	6 (109%)	100%	Saudi Arabia, United Arab Emirates,
carcasses, fresh or chilled			Bahrain

Table A.3: Mineral products

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Petroleum oils, not crude	162 (590%)	52%	The State of Kuwait, Saudi Arabia,
			South Africa
Niobium, tantalum and vanadium	15 (-5%)	100%	China, United States of America, the
ores and concentrates			Kingdom of Thailand

Table A.4: Precious stones and jewellery

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Gold in other semi-manufactured form non-	80 (-3%)	100%	Switzerland, South Africa
monetary (incl. gold plated with platinum)			
Gold in unwrought forms, non-monetary	58*	100%	Switzerland, Saudi Arabia
Precious and semi-precious stones (o/t diamonds)	5 (66%)	100%	India, United States of
unworked, simply sawn and rough shaped			America, Hong Kong, China

^{*} Growth rate could not be established due to insufficient data.

Table A.5: Leather and leather products

Product	X value (in US\$ million) and	Trade balance as a share of	Top three
	growth (in %)	total trade (in %)	destinations
Skins (in the dry state) and leather of sheep or	62 (10%)	99%	China, Italy, Hong
lamb, without wool on			Kong
Hides and skins (in the dry state) and leather of	26 (7%)	97%	China, Hong Kong,
goats or kids, without wool on			Italy

Annex II Kenya's export products by sector

Table A.6: Vegetable products

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Black tea (fermented) and partly fermented tea in packages exceeding 3 kg	1 224 (3%)	92%	Egypt, Pakistan, United Kingdom
Cut flowers and flower buds for bouquets, fresh	555 (6%)	100%	The Netherlands, United Kingdom, Russian Federation
Coffee, not roasted, not decaffeinated	242 (-1%)	98%	Germany, United States of America, the Kingdom of Sweden
Beans, shelled or unshelled, fresh or chilled	130 (0%)	94%	United Kingdom, the Netherlands, France
Cuttings and slips, unrooted	54 (3%)	92%	The Netherlands, Germany, Italy
Vegetable products, nes	45 (-17%)	99%	Somalia, United Kingdom, the Netherlands
Vegetables nes, fresh or chilled	41 (-1%)	100%	United Kingdom, the Netherlands, Somalia
Nuts nes	37 (21%)	97%	United States of America, the Netherlands, Hong Kong, China
Avocados, fresh or dried	37 (6%)	100%	France, United Arab Emirates, the Netherlands
Peas, shelled or unshelled, fresh or chilled	31 (-6%)	99%	United Kingdom, the Netherlands, Germany

Table A.7: Mineral products

Product	X value (in US\$ million)	Trade balance as a share	Top three destinations
	and growth (in %)	of total trade (in %)	
Petroleum oils, not crude	172 (-34%)	-90%	Uganda, United Arab Emirates,
			Rwanda
Portland cement nes	91 (65%)	90%	Uganda, United Republic of
			Tanzania, the Republic of Serbia
Salt (including table salt and denatured salt)	34 (13%)	85%	Uganda, United Republic of
pure sodium chloride and sea water			Tanzania, Rwanda
Fluorspar, containing by weight more than	28 (19%)	100%	Italy, India, Germany
97% of calcium fluoride			
Titanium ores and concentrates	13	95%	China, United States of America,
			Chinese Taipei
Cement clinkers	8	-79%	Uganda, Rwanda, United Republic
			of Tanzania
Butanes, liquefied	6 (-46%)	-73%	Uganda, Rwanda, the Republic of
·			Senegal

Table A.8: Food, beverage and tobacco

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Cigarettes containing tobacco	107 (23%)	95%	Somalia, Mauritius, Uganda
Pineapples nes, o/w prepared or preserved, sugared, sweetened, spirited or not	66 (6%)	100%	Germany, Spain, the Netherlands
Beans nes, prepared or preserved, o/t by vinegar or acetic acid, not frozen	36 (-3%)	99%	France, Belgium, Germany
Beer made from malt	36 (-23%)	62%	Uganda, Serbia, Sudan (North + South)
Chewing gum containing sugar, except medicinal	34 (24%)	92%	Uganda, United Republic of Tanzania, the Democratic Republic of the Congo
Tobacco, unmanufactured, partly or wholly stemmed or stripped	30 (1%)	-25%	Belgium, Russian Federation, Germany
Tobacco extracts and essences	25 (18%)	93%	Egypt, Sudan (North + South), the People's Democratic Republic of Algeria
Tunas, skipjack and atl bonito, prepared, preserved, whole or in pieces, excl. minced	23 (9%)	81%	Italy, Spain, Portugal

Sugar confectionery nes (including white	22 (13%)	64%	The Democratic Republic of the Congo,
chocolate), not containing cocoa			United Republic of Tanzania, Uganda
Tea or maté extracts, essences and	21 (-5%)	95%	United States of America, Japan, Ireland
concentrates and preparations thereof			

Table A.9: Chemicals

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Pharmaceutical products	86 (19%)	-69%	United Republic of Tanzania, Uganda, Somalia
Disodium carbonate	53 (8%)	93%	India, Thailand, Pakistan
Carbonates of metals nes; peroxocarbonates (percarbonates) of metals	45 (-32%)	98%	India, United Arab Emirates, Thailand
Silicates of metals nes; commercial alkali metal silicates	28 (592%)	90%	United Republic of Tanzania, United Arab Emirates, Uganda
Organic surface-active washing and cleaning products and preparations (incl. for the skin), for retail sale	26 (33%)	5%	Uganda, United Republic of Tanzania, Zimbabwe
Soap nes	25 (-18%)	88%	Malawi, the Democratic Republic of the Congo, United Republic of Tanzania
Toilet soap and prep., shaped; papers and non- wovens impreg. with soap toilet use	25 (3%)	37%	Uganda, United Republic of Tanzania, Zimbabwe
Soap and orgn surf prep., shaped, nes; papers and non-wovens impreg. W. soap or prep. nes	21 (64%)	79%	United Republic of Tanzania, the Democratic Republic of the Congo, Somalia
Insecticides, fungicides, herbicides packaged for retail sale	20 (2%)	-69%	Ethiopia, United Republic of Tanzania, Uganda

Table A.10: Textiles and textile products

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Women's and girls' trousers and shorts, of cotton, not knitted	56 (6%)	82%	United States of America, Canada, the Republic of Poland
Men's and boys' trousers and shorts, of cotton, not knitted	31 (17%)	47%	United States of America, Germany, Canada
Women's and girls' trousers and shorts, of cotton, knitted	21 (-12%)	77%	United States of America, Germany, United Arab Emirates
Pullovers, cardigans and similar articles of manmade fibres, knitted	20 (25%)	65%	United States of America, Canada, Uganda
Coconut, abaca manila hemp or musa textilis nee, ramie, agave and other	19 (8%)	90%	China, the Kingdom of Morocco, Spain
Pullovers, cardigans and similar articles of cotton, knitted	17 (-12%)	73%	United States of America, Canada, the Netherlands
T-shirts, singlets and other vests, of other textile materials, knitted	14 (78%)	53%	United States of America, United Republic of Tanzania, Canada
Women's and girls' trousers and shorts, of synthetic fibres, not knitted	11 (141%)	66%	United States of America, Mexico, Canada
Men's and boys' trousers and shorts, of synthetic fibres, knitted	10 (26%)	48%	United States of America, Canada, Mexico
Women's and girls' trousers and shorts, of synthetic fibres, knitted	10 (51%)	65%	United States of America, Canada, United Kingdom

Annex III Mozambique's export products by sector

Table A.11: Mineral products

Product	X value (in US\$ million)	Trade balance as a share of	Top three destinations
	and growth (in %)	total trade (in %)	
Petroleum oils, not crude	383 (42%)	-53%	South Africa, Malawi, Zimbabwe
Electrical energy	254 (0%)	5%	South Africa, Zimbabwe, Botswana
Natural gas, liquefied	250 (17%)	100%	South Africa
Bituminous coal, whether or not	184 (82%)	29%	Chinese Taipei, China, South
pulverised, but not agglomerated			Africa
Coal nes, whether or not pulverised, but	133 (194%)	88%	India, Kenya, Mauritius
not agglomerated			
Titanium ores and concentrates	125 (15%)	100%	China, United States of America,
			Spain
Petroleum oils and oils obtained from	58	100%	South Africa, the Netherlands, the
bituminous minerals, crude			Sultanate of Oman
Zirconium ores and concentrates	48 (8%)	100%	Italy, China, Spain
Granite, crude or roughly trimmed	21 (-0%)	100%	Italy, Spain, Japan
Nickel ores and concentrates	18 (-86%)	100%	The Republic of Finland, United
			Kingdom, China

Table A.12: Precious stones and jewellery

Product	X value (in US\$ million)	Trade balance as a share	Top three destinations
	and growth (in %)	of total trade (in %)	-
Precious and semi-precious stones nes, further	210 (271%)	100%	China, France, United States
worked than sawn or rough shaped			of America
Rubies, sapphires and emeralds, further worked	32 (67%)	100%	United States of America,
than sawn or rough shaped			Switzerland, France
Gold in unwrought forms, non-monetary	13 (149%)	100%	Switzerland, the Lebanese
			Republic

Table A.13: Food, beverages and tobacco

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Tobacco, unmanufactured, partly or wholly stemmed or stripped	233 (11%)	90%	Russian Federation, the Netherlands, Germany
Raw cane sugar	120 (22%)	29%	Spain, Portugal, Italy
Wheat bran, sharps and other residues, pelleted or not	13 (12%)	86%	South Africa, Viet Nam, United Arab Emirates
Cane molasses	12 (7%)	100%	South Africa, United Kingdom, Republic of Korea (South Korea)
Tobacco, unmanufactured, not stemmed or stripped	12 (-8%)	62%	Malawi, the Netherlands, Poland
Tobacco refuse	9 (49%)	100%	Poland, France, Russian Federation

Table A.14: Metals

Product	X value (in US\$ million)	Trade balance as a share of	Top three destinations
	and growth (in %)	total trade (in %)	
Aluminium, unwrought, not alloyed	1 374 (-6%)	100%	Belgium, Italy, Spain
Aluminium, unwrought, alloyed	47 (-17%)	100%	Germany, Poland, France
Ferrous waste and scrap, iron or steel, nes	16 (24%)	100%	India, Viet Nam, Indonesia
Pipe, line, i/s, longitudinally subm arc	11 (6%)	16%	South Africa, United States of
wld,int/ext cc sect,dia >406.4mm			America
Other line pipe of a kind used for oil or gas	7 (12%)	80%	South Africa, United States of
pipelines, of iron or steel			America, Canada
Copper, unrefined, copper anodes for	7 (-19%)	100%	Republic of Korea, China,
electrolytic refining			Germany
Waste and scrap, copper or copper alloy	5 (30%)	100%	South Africa, India, Republic of
			Korea

Table A.15: Wood and wood products

Product	X value (in US\$ million) and	Trade balance as a share of total	Top three
	growth (in %)	trade (in %)	destinations
Other logs of wood	163 (27%)	94%	China, Viet Nam,
			India
Wood, sawn, and chipped lengthwise,	64 (15%)	88%	China, Viet Nam,
sliced or peeled			France

Annex IV Zambia's export products by sector

Table A.16: Vegetable products

Product	X value (in US\$ million) and	Trade balance as a share of	Top three destinations
	growth (in %)	total trade (in %)	-
Maize (corn) seed	24 (11%)	79%	United Republic of Tanzania,
			Kenya, Botswana
Cut flowers and flower buds for	24 (-1%)	100%	The Netherlands, Germany, United
bouquets, fresh			Kingdom
Maize (corn) nes	16 (-20%)	94%	Kenya, South Africa, United
			Republic of Tanzania
Soya bean flour and meals	7	98%	United Republic of Tanzania, South
			Africa, Kenya
Barley	7	100%	Uganda, United Republic of
			Tanzania

Table A.17: Precious stones and jewellery

Product	X value (in US\$ million)	Trade balance as a share	Top three destinations
	and growth (in %)	of total trade (in %)	
Precious and semi-precious stones (o/t diamonds)	33 (11%)	95%	India, the Republic of
unworked, simply sawn or rough shaped			Singapore, South Africa
Rubies, sapphires and emeralds, further worked	30 (38%)	98%	United States of America,
than sawn or rough shaped			France, Italy
Diamonds, unsorted, whether or not worked	28 (137%)	100%	United Kingdom
Precious and semi-precious stones nes, further	8 (168%)	96%	Singapore, Israel, China
worked than sawn or rough shaped			

Table A.18: Food, beverages and tobacco

Product	X value (in US\$ million) and growth (in %)	Trade balance as a share of total trade (in %)	Top three destinations
Tobacco, unmanufactured, partly or wholly stemmed or stripped	145 (18%)	99%	China, Germany, Japan
Raw cane sugar	62 (-4%)	98%	Italy, Spain, Portugal
Tobacco, unmanufactured, not stemmed or stripped	6 (-10%)	99%	China, Belgium, the Netherlands
Refined cane or beet sugar, solid, without flavouring or colouring matter	6	84%	Kenya, Spain, United Kingdom

Table A.19: Textiles and textile articles

Product	X value (in US\$ million) and growth	Trade balance as a share of total	Top three destinations
	(in %)	trade (in %)	-
Cotton, not carded or	113 (6%)	100%	China, South Africa,
combed			Bangladesh

Table A.20: Metals

Product	X value (in US\$ million)	Trade balance as a share	Top three destinations
	and growth (in %)	of total trade (in %)	
Copper cathodes and sections of cathodes,	2 764 (1%)	100%	China, Republic of Korea, Saudi
unwrought			Arabia
Copper, unrefined, copper anodes for	1 544 (5%)	100%	China, India, Republic of Korea
electrolytic refining			·
Cobalt mattes and other products and articles	128 (-3%)	100%	China, Japan, United States of
of cobalt (incl. waste and scrap)			America
Wire of refined copper of which the max	117 (-11%)	98%	South Africa, Kenya, United
cross-sectional dimension > 6mm			Republic of Tanzania
Refined copper products, unwrought, nes	31 (-6%)	100%	India, Egypt, South Africa
Waste and scrap, copper or copper alloy	8 (4%)	100%	India, South Africa, Republic of
			Korea
Copper mattes; cement copper, precipitated	7 (-54%)	96%	China, the Republic of Bulgaria,
copper			Poland

EXPORT POTENTIALS OF ETHIOPIA, KENYA, MOZAMBIQUE AND ZAMBIA

Plate, sheet and strip of refined copper, not in	6 (-51%)	91%	Egypt, Kenya, South Africa
coil, exceeding 0.15mm thick			
Stranded wire, cable, plaited bands and the	6 (19%)	73%	South Africa, United Republic of
like of copper, not elec. insulated			Tanzania, Botswana

Annex V Data sources

Use of direct and mirror data in export potential assessments

	Ethiopia	Kenya	Mozambique	Zambia
Exports	direct + mirror	direct + mirror (2012 and 2014: only direct)	mirror (2010: direct and mirror)	mirror
Imports	mirror	direct + mirror (2012 and 2014: only direct)	mirror	mirror

Data sources for export potential assessments

Variable	Source	Link
Export and import values	ITC Trade Map	www.trademap.org
Ad valorem tariffs	ITC Market Access Map	www.macmap.org
Price elasticities	GTAP database (Hertel et al., 2004)	www.gtap.agecon.purdue.edu/resources/download/2931.pdf
Distances	CEPII GeoDist database (Mayer and Zignago, 2011)	www.cepii.fr/CEPII/fr/bdd_modele/presentation.asp?id=6
GDP growth projections	World Economic Outlook (WEO) database	www.imf.org/external/ns/cs.aspx?id=28
Prices	CEPII Trade Unit Values (TUV) database (Berthou and Emlinger, 2011)	www.cepii.fr/cepii/en/bdd modele/presentation.asp?id=2
Female employment	World Bank enterprise survey	www.enterprisesurveys.org
Foreign ownership share	World Bank enterprise survey	www.enterprisesurveys.org
Employment growth	World Bank enterprise survey	www.enterprisesurveys.org
SMEs	World Bank enterprise survey	www.enterprisesurveys.org

Annex VI Interview summaries

Ethiopia

	Sector structure notes	Opportunities and rationale for selecting sector	Challenges and constraints to develop sector or product
General	Smallholders dominate certain sectors such as coffee, honey and sesame. Chinese investment concentrated on leather manufacturing, tanneries and textile?	Highlighted sectors include flowers, textile and garments, agriculture, leather and leather manufacturing, wood furniture, aquaculture, coffee and honey. Industrial parks are expected to support investment and export development.	 General challenge with transportation and high cost of logistics. Up to 44 days' transit to Djibouti Port. General challenge on current local management capabilities. High level of informality in commercial relationship with China (on both sides). Government has got involved in disputes to solve non-compliance on price agreements or quality standards. Limited information on prices, trends and market dynamics for local producers. Industrial parks not yet fully utilized; issues with electricity and management mainly. Some "resentment" from local companies to see special treatment given to foreign companies and industrial parks "filled" with foreigners. Labour permits for foreigners supposed to be granted for "special qualifications", but suspicion of overuse of facility. Investment facilitation includes cheap loans or coinvestment. Some respondents felt that this was an area where overstatement and misuse was abundant.
Leather and leather manufacturing	 Largest Chinese investment and main partner for Ethiopia. Most tanneries are foreign owned. Wet blue leather cannot be exported by law. Most finished leather is exported, not transformed locally. Shoe manufacturing has more international investment than other parts of the chain. 	Industry is not yet working at full capacity. Overall leather sector is considered attractive and has not yet been tapped as much as other priority sectors.	Low efficiency for workers; machinery.
Agriculture	Sesame seed has strong potential, but considered too dependent on China	High potential in sesame, pulses, honey and coffee.	Phytosanitary standards; permission to sell honey in the EU.

	Sector structure notes	Opportunities and rationale for selecting sector	Challenges and constraints to develop sector or product
	market. • Mainly small farms owned by locals. • Up to 5 000 ha, the land leasing is arranged directly by the regions. Otherwise, managed through a "land bank" centrally.	Honey production with no chemicals. Potential to differentiate products based on origin, for example, coffee.	Capacity and skills gap.
Flowers	 Sheritopia is the largest firm, with 14 000 employees. Most firms have about 200–300 employees. Current orientation to Europe (Dutch) market mainly. 		
Textile	 Sector has significant foreign investment (excl. Turkey) and generates large employment. Raw cotton imported from Egypt and Sudan. Most focussed on cotton, also some wool and silk, very limited synthetic. Some textile firms setting up own cotton plantations. Some textile mills still government owned (being privatized). Garment sector women employment ratio is 60%-70% women. 		 Very low productivity: machinery, skills, culture. Challenges with electric power supply. System of distribution of energy not compatible with factories. Low wages and high rotation of personnel.

Kenya

	Sector structure notes	Opportunities and rationale for selecting sector	Challenges and constraints to develop sector or product
General	 SMEs employ 50% of population; fastest-growing segment. Land tenure mix of communal, government and private. Country is water deficient. Moving from export processing zones to special economic zones in the country. 	 Need to seek sectors with higher value added and lower volatility. Semi-arid areas could be further utilized with irrigation to expand production. There is currently a construction boom and anything to do with this sector will grow significantly. There are benefits from playing in the whole chain, not just in one or two particular products, as there are additional benefits from the linkages and strength of the chain as a whole. 	 General challenge with price of energy. Investments bringing it down 20%–30%, but still expensive. Cost of logistics is also quite high. Kenya went down on competitiveness index ranking from position 139 to 145, lowered by corruption index. Not enough development finance available (low rates, long maturities). Trust can be a major issue for foreign

	Sector structure notes	Opportunities and rationale for selecting sector	Challenges and constraints to develop sector or product
		 Numerous opportunities for import substitutions in multiple sectors. Kenya made progress on Doing Business report from position 129 to position 108. An SME fund to be established, but still unclear size of fund and contributors. Export processing zones have opportunities, but constrained to export markets. Special zones should be able to sell to domestic market, satisfy demand growing of middle class. 	companies and investment. Foreign companies face a number of challenges, main ones around getting work permits and land or location opportunities. Limited skills beyond basics in manufacturing, leather and apparel production. Limited SME know-how, access to market, credit. Higher cost of labour (relative to other African countries). Complex tax system. Incidence of HIV, AIDS and malaria.
Leather sector	 Employment in leather industry estimated at 14 000 during peak times. Informal sector is the biggest employing, accounting for 10 000 (of the 14 000) workers. Most leather good producers are micro, small. Tanneries are larger and have foreign investment. Most modern is Alpharama. Livestock herd one of largest in Africa; 60 million heads. Bata largest player; two to three mid-players (1 000 pairs a day) and thousands of small players (<200 pairs a day). 	 Not focus on blue leather; rather source it from other countries when needed. May want to consider "moving" the tanneries so as to start from the beginning and eliminate inefficiencies as well as potential environmental externalities. 	 Still a number of issues outstanding on cattle herding and abattoirs, etc. Challenges on chemicals, technology, skills, cost, leather quality and environment considerations. High cost of chemicals (25% duty on imports). Informal organization only among farmers and traders. Productivity is very low, with five to seven pairs per employee, up to 13 in some areas, much lower than Asia.
Agriculture and agro-processing	 Agriculture contributes 26% of GDP, 65% of exports and 70% of informal employment in rural areas (Agriculture Strategy Document). Farm structure: Small-scale (<3 ha) is 75% of total output and 70% of marketed. Medium and large-scale account for 30%. Large commercial farms account for 40% of irrigated land, smallholders for 42% and government management schemes for 18%. Land availability is 576 000 km², only 16% high or medium agricultural potential. 	 Considered important sector for social stability and to increase farmers' income. Possibility to add value through preservation also has upside on making it less volatile or time critical. 	 Low-quality agricultural inputs. Low use of fertilizers and machinery among small farmers. Land availability: Viable area can be expanded with irrigation. Reduced agriculture extension service.
Flowers	Few, large players.	Heavy concentration on roses; few owners; opportunities for diversification.	
Textile and	 Cotton has higher presence of women on 	Cotton sector could be expanded in semi-arid areas.	EPZs constrain the access to domestic

	Sector structure notes	Opportunities and rationale for selecting sector	Challenges and constraints to develop sector or product
garments	the fields. • Garment factories also employ majority women.	 Industry geared to AGOA agreement, important to diversify markets. Opportunity to diversify into mixed or synthetic. Market expanding on this area more rapidly than pure cotton. Opportunity to diversify fabric, variety and quality. Move towards a more differentiated "Sri Lanka" model (vs. a "Viet Nam" model). Chinese technology in cotton growing could be applicable to small-scale cotton growers and to outgrower mechanisms. Kenya has less social issues in textile relative to other DCs. 	 markets. Cotton growing not always up to expectations on safe use of pesticides. Water shortage could also be an issue in cotton growing. Limited research exists on cottonseeds. Second-hand clothing competes against garment sector in the local and regional markets. Very low productivity compared to Asia. Lack of vocational and technical training opportunities.

Mozambique

	Challenges	Opportunities
Market	 Non-tariff measures, especially in Europe (quality, sanitary, phytosanitary and sustainability, etc.). Traceability and natural resource conservation requirements, especially in Europe markets. Commodity price volatility. 	 Significant export potential and diversification opportunities in Europe (agriculture, food and beverage), the regional market (agriculture, food and beverage) and China (wood products, agriculture, food and beverage). Free trade agreements; preferential access rates with EU; in the regional market; China.
Business level – competitiveness factors	 Technical skills – limited vocational.training. Labour productivity. High financing costs. Informal or illegal activities. 	 Labour availability and cost. Relative high labour efficiency market.
Business environment	Transport cost and time.High level of bureaucracy.	 Government support to trade and development agenda. Matchmaking programme by government for MSMEs as suppliers to large companies.
Infrastructure	 Low energy tariffs deter investment in energy. Export zones still not working at capacity. 	Deepwater port in Nacala; new airport in Nacala.
Trade policy	High level of duties paid on parts and inputs (15%–25%).	Capital equipment and machinery exempt for new investments.
Foreign investment	Skills for feasibility studies, investor appraisal and investor accompaniment could be upgraded.	 Export and industrial zones. Promotion policies for new FDI, considering "special purpose vehicles", could also ease access to finance.
Sustainable development – economic, social and environmental	Foreign investment still doesn't have a solid record on promoting sustainable economic, social and environmental well-being.	Increasing opportunities to connect goals to market requirements, especially in EU markets.

Zambia

	Challenges	Opportunities
Market	 Non-tariff measures, especially in Europe (quality, sanitary, phytosanitary and sustainability, etc.). Traceability and natural resource conservation requirements, especially in Europe markets. Commodity price volatility. 	 Significant export potential and diversification opportunities in Europe (agriculture, food and beverage), the regional market (agriculture, food and beverage, textiles, inputs to mining and machinery) and China (metals, stones, textiles, agriculture, food and beverage, wood and wood products). Regional location attractive; neighbour to eight countries. Free trade agreements; preferential access rates with EU; the regional market; China.
Business level – competitiveness factors	 Technical skills – limited vocational training. Labour productivity. High financing costs. Informal or illegal activities. 	Labour availability and cost.
Business environment	Transport cost and time.Currency instability.	
Infrastructure	 Export zones with uneven success; missing some basic infrastructure Roads, port facilities and efficiency. 	Abundant water sources for energy generation.
Trade policy	 High level of duties paid on parts and inputs (15%–25%). 	Capital equipment and machinery exempt for new investments.
Foreign investment	 Foreign investment considered "piece meal" by different areas of government; would need an integrated view. Skills for feasibility studies, investor appraisal and investor accompaniment could be upgraded. 	 Promotion policies for new FDI (0% income tax for five years; duty exempt for capital equipment). Export and industrial zones.
Sustainable development – economic, social and environmental	Foreign investment still doesn't have a solid record on promoting sustainable economic, social and environmental well-being.	Increasing opportunities to connect goals to market requirements, especially in EU markets.





