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MINISTRY OF INDUSTRY

National Import Substitution Strategy for Selected Manufacturing Industry Sub-Sectors in Ethiopia

Manufacturing Industry Development Institute (MIDI)

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Acronyms

AfCFTA	Africa Continental Free Trade Agreement
CAGR	Compounded (Cumulative) Annual Growth Rate
CIT	Corporate Income Tax
CMT	Cut Make Trim
CSB	Corn-Soy Blend
ECI	Export Complexity Score
ETB	Ethiopian Birr
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GMP	Good Manufacturing Practice
HGER	Homegrown Economic Reform
HS	Harmonized System
ICT	Information Communication Technology
IS	Import Substitution
ISI	Import Substitution Industrialization
ISIC	International Standard
ISS	Import Substitution Strategy
IT	Information Technology
KW	Kilo Watt
NTB	Non-Tariff Barriers
PCI	Product Capacity Index
PLC	Private Limited Company
RHS	Raw Hides and Skins
SME	Small and Medium Enterprises
SSA	Sub-Saharan Africa
TVET	Technical and Vocational Education and Training
TYDP	Ten-Year Development Plan
USD	United States Dollars
VAT	Value Added Tax
WWI	World War I
WWII	World War II

Organizations

ATI	Agricultural Transformation Institute
CCIRDC	Chemical and Construction Inputs Industry Research and Development Centre
CSA	Central Statistical Agency
DBE	Development Bank of Ethiopia
ECAE	Ethiopian Conformity Assessment Enterprise
ECC	Ethiopian Customs Commission
ECCSA	Ethiopian Chamber of Commerce and Sectoral Associations
EEP	Ethiopian Electric Power
EEU	Ethiopian Electric Utility
EFCCC	Environment, Forest, and Climate Change Commission
EIIDE	Ethiopian Industrial Inputs Development Enterprise
ELIA	Ethiopian Leather Industry Association
ESI	Ethiopian Standards Institute
ESS	Ethiopian Statistics Services
FAO	Food and Agriculture Organization
FBIRDC	Food and Beverage Industry Research and Development Centre
FDA	Food and Drugs Authority
FEACC	Federal Ethics and Anti-Corruption Commission
IMF	International Monetary Fund
ITC	International Trade Centre
JETRO	Japan External Trade Organization
KEC	Kaizen Excellence Centre
LLIRDC	Leather and Leather Products Industry Research and Development Centre
MIDI	Manufacturing Industry Development Institute
MInT	Ministry of Innovation and Technology
MITI	Ministry of International Trade and Industry *(Japan)*
MoA	Ministry of Agriculture
MoI	Ministry of Industry
MoJ	Ministry of Justice
MoM	Ministry of Mines
MoTRI	Ministry of Trade and Regional Integration
MoWSA	Ministry of Women and Social Affairs
MTEIRDC	Manufacturing Technology and Engineering Industry Research and Development Centre
NBE	National Bank of Ethiopia
OEC	Observatory of Economic Complexity
PMO	Prime Minister's Office
PPPA	Public Procurement and Property Authority
PSI	Policy Studies Institute
SMEDA	Small and Micro Enterprises Development Agency
TGIRDC	Textile and Garment Industry Research and Development Centre
UNCTAD	United Nations Conference on Trade and Development
WB	World Bank
WTO	World Trade Organization

FOREWORD

I am pleased to introduce the "National Import Substitution Strategy for Selected Manufacturing Industry Sectors in Ethiopia" document, which presents a comprehensive roadmap towards reducing import dependency and fostering domestic production capabilities for five manufacturing sectors. This strategy is a significant milestone in our ongoing efforts to promote a balanced and sustainable economic growth, enhance industrial competitiveness, and strengthen Ethiopia's economic self-reliance.

Import substitution has long been recognized as a crucial approach to mitigate the challenges associated with excessive reliance on imported goods. By nurturing our manufacturing sector, we aim to harness our abundant resources, talents, and capabilities to meet domestic demands and reduce our dependence on external sources. We believe this approach complements our export diversification strategy we have been implementing.

This strategy outlines a holistic framework to identify priority products that span major manufacturing industry sectors, encompassing textiles, food and beverage, leather, chemicals and construction inputs, and metal and engineering. It delves into key areas such as regulation, infrastructure development, investment, and fostering a conducive business environment. Through a combination of targeted interventions for competitive product manufacturers, we seek to foster an ecosystem that encourages local production, innovation, and value addition for the manufacturing industry.

Through the continued implementation of flagship initiatives like the "Ethiopia Tamrit Movement," we aim to accomplish a multifaceted array of objectives. This strategic approach is poised not only to fortify our economy but also to create job prospects, facilitate the transfer of technology, and elevate the overall competitiveness of our manufacturing sector. The environment fostered by the Ethiopia Tamrit Movement will play a pivotal role in executing the diverse recommendations outlined in our strategy.

I would like to extend my gratitude to the dedicated team of experts, carefully selected from the six Research and Development Centers of the Manufacturing Industry Development Institutes, as well as the invaluable contributions from our esteemed stakeholders and industry leaders who have contributed their expertise and insights to the development of this strategy. I must also take this opportunity to recognize the pivotal role played by the Tony Blair Institute that provided a dedicated and professional team for this assignment. Their unwavering commitment and collaboration have been instrumental in shaping this document and enhancing our in-house expertise, which serves as a roadmap for realizing our vision of a robust and self-reliant manufacturing sector.

I encourage all stakeholders, policymakers, and industry players to embrace this strategy, recognize the immense potential it holds, and work together to build on it and translate it into concrete actions. The journey towards import substitution requires concerted efforts, bold decision-making, and continuous evaluation to ensure its effectiveness and long-term sustainability.

Together, let us embark on this transformative path and usher in a new era of economic resilience, industrial growth, and prosperity for Ethiopia.

[Melaku Alebel]

[Minister]

[Federal Democratic Republic of Ethiopia, Ministry of Industry]

1 EXECUTIVE SUMMARY

The purpose of this document is to outline an inward-looking industrial approach for Ethiopia's manufacturing industry to enhance domestic market competitiveness and ensure balanced growth. With Ethiopia's trade balance persistently negative at an average of $8 billion over the past decade, it has placed significant pressure on foreign exchange reserves, discouraged local production and innovation, and undermined the country's economic sovereignty. As part of the Home-Grown Economic Reform agenda, one of the objectives is to implement a two-pronged sector development strategy aimed at diversifying exports and decreasing imports by designing tailored policy instruments for the productive sectors. The objective of this strategy is to identify competitive products to support industrialists from the food and beverage, textile, leather, chemical and construction inputs, and metal and engineering manufacturing industries and, to develop a five-year phased implementation roadmap after assessing the root causes of sectoral challenges; the agriculture, mining, and pharmaceuticals sectors are also lightly incorporated to identify sectoral overview for import substitutability. This strategy is developed for a timely intervention to boost the market share of domestically produced manufactured goods and stabilize the foreign currency shortage.

The strategy followed different guiding approaches to identify competitive manufacturing industry products. A rigorous framework has been built to assess import volume, value, and local production efficiency to prioritize products. The competitive product analysis uses data categorized in accordance with the Harmonized Commodity Description and Coding System (HS), an internationally accepted nomenclature for the classification of products that allows participating countries to classify traded goods on a common basis for customs purposes[1.] Primary data from 197 manufacturers have been collected and analyzed to determine competitive industries and supply-side challenges, supplemented by the national manufacturing survey secondary data from ESS (previously CSA) 2019/2020 publication and sectoral diagnostic studies by Dalberg Advisors for the Ministry of Industry, among others. Nine International benchmarking have been conducted to identify strategic interventions for Ethiopia for the next five years while also prioritizing quick-win interventions to roll out under the Ethiopia Tamrit Movement, a flagship initiative pioneered by the Country's top government leadership.

Using a ten-year import trade performance and domestic productivity analysis, 93 import substitutable commodities are identified under five manufacturing industry sub-sectors. Based on ten years of data from 2011-2021 on imports, domestic productivity and manufacturing enterprise capacity, 11 priority food and beverage commodities have been identified with potential substitutability until the medium term for most products. 33 priority textile and garment commodities have been identified with 49% domestic market share; cotton, natural and synthetic fibres are also identified as strategic commodities to further accelerate their competitiveness in the domestic market. While 8 commodities are identified from the leather and leather products sector with 66% domestic market share, petrochemicals are identified as a strategic commodity to improve the productivity of these commodities as well as the competitiveness of 23 prioritized commodities from the chemicals and construction inputs sector. The rest 18 prioritized commodities are from the metal

[1] Competitive products categories are defined at HS4 level. Further disaggregation of product groupings to that of HS6 and HS8 levels will be required to provide strategic support for the five sub-sector commodity producers that are efficient.

and engineering sector in which the development of the iron ore, nickel, copper, and tantalum strategic minerals are crucial to generate sustainable raw material for the sector and enhance productivity.

A set of 71 strategic interventions are proposed for the next five years under five key pillars: regulatory, market, finance, infrastructure, and production efficiency. These interventions aim to address barriers and strengthen the macro and business-enabling environment for manufacturers of the prioritized commodities. The interventions are also structures across key implementation tools such as commodity and manufacturer specific incentives, capacity-building programs, direct government support, cautious tariff protection, and collaborative marketing platforms and systems that create a resilient framework for sustainable and balanced manufacturing industry growth. Priority focus areas for implementation are also identified as ongoing interventions geared towards enhancing sector-wide competitiveness and newly proposed interventions from countries' lessons:

- Examples of these interventions include the promotion and expansion of the warehouse receipt system for priority and strategic commodities, the development of new performance-based incentives targeting manufacturers in the fibre, yarn, fabric, trim, and accessories sectors, and the revision of public procurement procedures to enforce the mandatory procurement of competitive local products, to mention few.
- Building on the experiences of other countries, strategic recommendations such as the establishment of a manufacturers federation to leverage bulk purchase advantages and absorb market volatility are proposed. Additionally, a long-term approach to developing the value chains for strategic commodities and providing time-bound preferential treatment to manufacturers producing competitive products are identified as key strategies to pursue. By implementing these interventions, Ethiopia can overcome various barriers, unlock the potential of its manufacturing sector, and foster a more favourable environment for sustainable growth and competitiveness.

The strategy outlines a two-fold resource mobilization approach.

1. **Firstly, it identifies an estimated amount of USD 18,753,904.18 to implement interventions by aligning their resource requirements with the budgetary allocations specified in the Ethiopia Tamrit movement's three-year initiatives plan**. A detailed implementation plan will also be developed in the next phase for interventions that do not have a direct alignment with the existing Ethiopia Tamrit initiative but fall within the broader programmatic areas identified under the Movement. Furthermore, the five national cluster structures established under the movement can serve as valuable mechanisms for coordinating government support and resources, offering a timely opportunity for providing guidance and oversight during the implementation of the strategy and the allocation of resources. By leveraging these structures, effective resource allocation and successful execution of the strategy can be ensured by all implementing institutions including the Ministry of Industry and the Manufacturing Industry Development Institute.
2. **Secondly, the strategy emphasizes the importance of maximizing the potential of strategic resources and fostering knowledge transfer from the mining and natural resources sectors to other areas of the economy.** To achieve this, the strategy recommends implementing medium to long-term interventions aimed at developing value chains for strategic commodities. This involves leveraging upstream, downstream, and horizontal linkages with resource extraction and processing activities. By jointly undertaking long-term projects, the government and the private

sector can collaborate to enhance resource extraction and processing capabilities for a learning economy and manufacturing society. Exploring and developing these interconnections can form the foundation of an effective industrial strategy.

It is high time for Ethiopia to transition from a primary commodity-driven economic development and trade model to a resource-led industrialization focused on value-addition. This shift will enable the country to capitalize on its resources and unlock its transformative potential, fostering sustainable economic growth and diversification. By embracing a strategy that nurtures linkages and value-chain development, Ethiopia can position itself as a dynamic and competitive player in the global market while fostering domestic economic resilience and self-reliance.

Alternative industrialization policy approaches will accelerate the modest value-addition growth for Ethiopia's manufacturing sector. This limited growth registered under the export diversification industrialization policy is attributed to challenges such as low-capacity utilization, heavy reliance on imported raw materials, and a decline in demand for Ethiopia's merchandise both in domestic and export markets. This strategy aims to improve the sector's competitiveness and promote innovation by developing domestic industries using principles that do not distort the market, by mobilizing domestic production capability and resources. Through a combination of targeted government support, market-oriented policies, and a focus on technological advancement, the strategy aims to achieve greater economic self-sufficiency and create sustainable jobs for accelerated growth of the sector. Now is the time for collective action and unwavering commitment to support the manufacturing industry of Ethiopia and implement this strategy, as it holds the key to unlocking our economic potential, reducing import dependency, and building a self-reliant and thriving manufacturing sector for a prosperous future.

2 SECTION I

2.1 Introduction and Background

Import Substitution Industrialization (ISI) is an 18th-century industrialization concept applicable in the 21st century to promote domestic manufacturing competitiveness. The theoretical and archaic definition of import substitution (IS) describe IS as a development strategy focusing on the promotion of domestic production of previously imported goods through stages beginning with nondurable consumer goods, gradually transitioning to manufactured goods export and export diversification[2]. Having different labels, Import Substitution Strategy (ISS) or Import Substitution Industrialization (ISI) or IS, such industrial policy, as Dani Rodrik puts it in his working paper "Industrialization Policy for the 21st Century[3]", as an interactive process that requires strategic and planned interaction between the private and public sectors to discover where action is needed and what type of action can bring forth the greatest response to generate policy initiatives in response to market constraints and bring about industry competitiveness[4]. This document will use the term Import Substitution Strategy (ISS) from this point forth.

It is a popular industrialization tool widely adopted since the mid-20th century. Broadly speaking, policies to encourage industrial development were implemented in three phases: state-led import substitution, structural adjustment, and investment climate reform[5]. Strategically implemented as an infant industry protection concept in the early 1950s, many Asian, Latin American, and Independent African countries adopted import substitution policies after the 1960s before it got abandoned when the Washington Consensus[6] surfaced in the early 1980s. Based on Peterson Institute for International Economics Trade and Investment Policy Watch Senior Researcher, Douglas A. Irwin, the waning down of imports substitution as an industrialization strategy is illustrated using a Google N-gram of book references to import substitution where the concept took off in the 1960s, stagnated in the 1970s and 1980s, and declined in the 1990s.

ISS has been implemented using policy tools, instruments, and strategic development practices. Applicable to consumer goods with less cost disadvantage than intermediate goods, restricting import through direct and indirect tariffs, and Non-Tariff Barriers (NTB) is the first form of IS practiced by many countries after the Second World War[7]. Supporting domestic manufacturers through targeted subsidy is another, where countries provide grants to support producers and protect market share. For example, in the United States, the Trump administration has been taking steps to "re-shore" the production of automobiles, semiconductors, and other manufactured goods to boost American output and create manufacturing jobs[8]. Tailored industry support through a prioritized industry development approach is the last type of IS where governments design integrated practices including finance, skills and knowledge development, technology transfer, and labor market development using time-bound performance measures[9].

The 4th industrialization trend demands governments roll out non-distortionary, time-bound, and performance-based policy tools to develop their industries. Countries remain divided on protection policy implementation under the global market system. The struggle to reach a consensus on subsidies, tariffs, intellectual property protection, and the role of state-owned enterprises in

[2] Bussell, Jennifer. (2028). "Import substitution industrialization". *Encyclopaedia Britannica*, 19 Apr. 2018, https://www.britannica.com/topic/import-substitution-industrialization. Accessed 12 December 2022.
[3] https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/industrial-policy-twenty-first-century.pdf
[4] Ibid.
[5] Gebreeyesus, M., & Coxhead, I. (2018). Made in Africa Industrial Policy in Ethiopia. World Development, 105, 383-392. doi:10.1016/j.worlddev.2018.01.013
[6] Irwin, D. A. (2012). The Rise and Fall of Import Substitution. Peterson Institute for International Economics.
[7] https://pdf.usaid.gov/pdf_docs/PNABI344.pdf
[8] Retrieved from https://www.epi.org/publication/reshoring-manufacturing-jobs/
[9] https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/industrial-policy-twenty-first-century.pdf

international commerce remains a prominent issue at the WTO even after the multilateral organization has been dealing with the issues since the time of its inception[10]. Especially with the challenges of COVID-19, and the disruption of the global supply chain countries are resorting more to protectionism policies. However, during the Doha Rounds, in 2015, a consensus was reached for developing countries including large emerging markets like China, Brazil, and India, for the protection of manufacturing and service sectors to remain if the WTO rules are not compromised, supported by non-distortionary domestic policy practices[11]. By adopting technology, time-bound, and selected intervention, countries are expected to follow protectionist policies and industrialization strategies without compromising regional and international trade rules and distorting market efficiency. It requires working closely with the private sector, building state and institutional capability to monitor performance, and rolling-out market development programs.

ISS resurfaced as a primary focus in Ethiopia after being implemented widely for more than half a century. The implementation of ISS has been practiced under different economic systems using various types of policy instruments. During the Imperial regime from 1930 -1974, the government followed a private-led market-oriented economic policy where its import substitution strategy targeted labor-intensive industries to promote domestic productivity and competitiveness through a protectionist tariff system, and state-led investment on strategic sectors[12]. Continuing the focus on labor-intensive industries, the Derg regime followed a planned economy principle by reforming of import substitution strategy by introducing quota restrictions, creating a monopolistic marketing system for nationalized private and state-owned enterprises, and by creating to take tailored financial and subsidy schemes from 1974 - 1991[13].

Several measures and policy tools can be utilized for a country to implement import substitution strategies where recent experiences put non-distortionary government support at the forefront to implement inward-looking industrialization strategies including import substitution. As a country, Ethiopia has been implementing import substitution strategies for several decades with disappointing results for the manufacturing industry.

The main purpose of this document is to develop an import substitution strategy for five manufacturing industry sectors. This document layouts the relevant framework for institutions within the MoI and outside for identifying competitive commodities for import substitution in the future and proposes specific interventions to be implemented under the Ethiopia Tamrit import substitution initiative. It can also be used as input for trade and competition policies that the country intends to develop and preliminary commodity areas in the manufacturing industry to achieve the HGER 2.0 national import substitution targets.

The document is intended foremost to articulate the strategic direction of activities to be taken by the Ministry of Industry to substitute imports for selected commodities in the coming years. Following this body of work, there is a need to further develop similar strategies for other sectors and manufacturing industry sub-sectors. This includes subsequently disaggregating product categories beyond the classification used in this document to reach detailed planning efforts. Additional detailed work on planning and execution needs to be completed including further disaggregation of high-potential product categories and identification of geographic distribution of government support to develop catalytic products value-chains.

[10] Retrieved from WTO.pdf
[11] Ibid.
[12] Equbay, Arkebe. "Made in Africa: Industrial Policy in Ethiopia." African Affairs 116, no. 462 (2017): 582-604.
[13] Ibid.

2.2 Objective and Scope

Three main objectives are covered in this strategy, with specific out-of-scope areas:

I. **To define import substitution and identify why it is used as an industrialization strategy for Ethiopia:** by briefly assessing the import substitution experience and the rationale for why now, the strategy aims to provide key principles and definitions for import substitution strategy for the manufacturing sector in Ethiopia.

II. **To prioritize high-potential competitive commodities and value chains and identify their bottlenecks:** Using the competitiveness framework adopted from UNCTAD and the WB, the strategy will identify competitive commodities and assess the market characteristics to develop a priority substitute commodity priority list by HS4 and HS6 2022 Harmonized System for textile and apparel, leather and leather products, food and beverage, metal and engineering, and chemical and construction inputs sectors.

III. **To develop value-chain-specific and cross-cutting interventions with a high-level implementation plan:** the strategy will assess countries that have implemented import substitution strategies to adopt learning for improving domestic manufacturing and competitiveness based on the value-chain challenges of identified commodities under the five sectors. A ten-year implementation plan will be developed with sector-specific strategic, institutional, operational, programmatic, and regulatory interventions including the strategy implementing organs.

Sector diagnosis, export comparativeness, and a detailed plan are out of the scope of this strategy. The overall manufacturing sector competitiveness is not part of this strategic commodity assessment. The scope of the strategy is limited to the five sectors. The study aims to provide commodity-specific strategic intervention for implementation by the MoI and relevant public and private implementing bodies focusing on import substitution– export comparison and specific intervention to improve production capacity including the institution-level planning and resource mapping are out-of-scope areas.

2.3 Strategy Development Approach and Methodology

2.3.1 Approach

The project team conducted extensive research on Ethiopia's import substitution history for this report. This strategy draws upon primary data work by MIDI technical team as well as interviews (see table 1), secondary studies conducted by five MIDI research centres, sectoral diagnosis study conducted by Dalberg Advisors, and extensive review of secondary literature.

Table 1: Key stakeholders consulted

Institution Name	Name of participant	Position
Ministry of Industry	Ato Melaku Alebel	Minister
Ministry of Industry	Ato Tarekegn Bululta	State Minister
Ministry of Industry	Ato Hassan Mohammed	State Minister
Manufacturing Industries Development Institute	Dr. Milkesa Jagema	Director General
Manufacturing Industries Development Institute	Ato Sileshi Lemma	Deputy Director General
Manufacturing Industries Development Institute	Dr. Hadgu H/Kiros	Deputy Director General
Ministry of Industry	Ato Shibeshi Seyoum	Chief Executive Officer
Ministry of Mines	Dr. Eyob Bekele	Chief Executive Officer

Ministry of Agriculture	Ato Esayas Lemma	Chief Executive Officer
Ministry of Finance	Ato Mulay Weldu	Director
Ministry of Planning and Development	Ato Habtamu Yalew	Director
Ministry of Trade and Regional Integration	Ato Ahmed Tusa	Advisor
Ministry of Revenue	Ato Fekadu Bekele	Advisor
Ethiopian Customs Commission	W/ro Genet Abraham	Director

Additional stakeholders consulted

Institution Name	Name of participant	[1] MoTI, Ethiopian Industrial Development Strategic Plan (2013- 2025), 2013.
Public Sector		
Ministry of Industry	Ato Zerihun Abebe	Chief Executive Officer
Ministry of Industry	Dr. Fekadu Ashine	Chief Executive Officer
Ministry of Industry	W/ro Maryamawit Engdawork	Advisor
Ministry of Industry	Ato Asfaw Abebe	Advisor
Ministry of Industry	Ato Hadish Halefom	Advisor
Ministry of Industry	Ato Daniel Olani	Advisor
Chemical and Construction Inputs Industry Research and Development Centre	Dr. Fekadu Ashine	Deputy Director
Ethiopian Enterprise Development	Dr. Alebachew Nigussie	Director General
Ethiopian Enterprise Development	Paulos Berga	Deputy Director General
Ethiopian Enterprise Development	Abdulfeta Yesuf	Deputy Director General
Ministry of Mines	Engineer Lelisa	
Ministry of Mines	Ato Kaleb Gebreyes	
Ministry of Mines	W/ro Enat Fenta	
Ministry of Mines	Ato Jiksa	
Ministry of Agriculture	Ato Sibhat	
Ministry of Agriculture	Ato Fekadu	
Ministry of Agriculture	Ato Fisseha	
Ministry of Agriculture	Ato Mitiku	
Ministry of Agriculture	W/ro Samrawit	
Ministry of Agriculture	W/ro Netsanet	
Private Sector		
Adama Spinning	Yimer Yimam	
ASBM Industrial PLC	Alemayehu Feyissa	
Booez Food Complex	Gadissa Hundessa	
EEOMIA	Adise Garkobo	

ELICO (Ethio-leather)	Solomon T/Mariam	
EMA	Tesfaye Haile	
ETGAMA	Ageazi G.yenus	
Ethiopian Automotive Industries Association	Endris Mohammed	
Faffa Food S.C.	Haile W/Giorgis	
Frankun ET Automotive	Fitsum Deribe	
Frankun ET Engineering	Zerubabel Gugssa	
Jay Jay Textiles	Lemma Tegegn	
Kanoria Africa Textile	Dinakaran Subburaj	
Marathon Motor Engineering PLC	Fiseha Teshome	
MNS Manufacturing	Rahel Leake	
Repi Soap and Detergent	Mufid Sabor	
Roda Business Group PLC	Aklilu Abate	
Wonji Sugar Factory	Jemal Aman	

In addition to these interviews, this report also reflects insights from a range of national and sector-specific studies including an extensive set of secondary literature, referenced in footnotes throughout this document and highlighted in Table 2 below.

Table 2: Reviewed documents

National Document
Homegrown Economic Reform Agenda
10-Year Plan: A Pathway to Prosperity
Ethiopia Industrial Development Strategic Plan
Ministry of Industry Ethiopia Manufacturing Industrial White Paper
Manufacturing Industry Policy Diagnostic Report
Plan of Action for Job Creation
National Bank of Ethiopia Annual Reports
Addis Chamber Journal of Trade and Business, Competitiveness of Ethiopian Industries
Report on Large and Medium Scale Manufacturing and Electricity Industries Survey
Sector Specific Document
Ethiopian Subsector Analysis Food and Beverage Processing
Ethiopian Subsector Analysis Machinery and Equipment
Ethiopian Subsector Overview Plastic and Rubber
Ethiopian Subsector Analysis Chemical and Pharmaceuticals
Ethiopian Subsector Analysis Leather and leather Products
Ethiopian Subsector Analysis Textile and Apparel
Ethiopian Subsector Analysis Wood, Paper, and Furniture

Ethiopian Subsector Analysis Motor Vehicles and Semi-Trailers
Ethiopian Subsector Analysis Iron and Steel
Ethiopia: Science, Technology, & Innovation Policy Review
Industrial Park Development in Ethiopia Case Study Report
Ethiopia Textile and Clothing Value Chain Roadmap
Realizing New Productive Capacity in Ethiopia's Textiles and Apparel Sector: Strategy and Policy Recommendations
An abstract to Ethiopia's textile chemical processing/ finishing industry
Ethiopia Leather Value Chain Strategy
Creating New Productive Capacity for the Leather Industry: National Leather Roadmap
A Preliminary Assessment on Technology Utilization of Ethiopian Selected Manufacturing Industries
Study of the challenges of the Leather Industry
Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry
Analysis of Achievements and Challenges of Metal, Engineering, Chemicals and Construction Inputs Industries
Manufacturing Growth Inhibition: From Linkage and Input Supply Perspective
Forward and backward linkage analysis of manufacturing industries
Applying Input-Output Model to Investigate the Inter-Industrial Linkage of Transportation Industry
Industrialization policy and industrial development strategy in Ethiopia
Standards related foods and food products
Ethiopia's Manufacturing Industry Opportunities, Challenges and Way Forward: A Sectorial Overview
Ethiopia's Food and Beverage Processing and Auxiliary Industry Strategy
Agricultural taxation and economic growth in Ethiopia
Cotton and textile industry sector development 10 years strategic plan
Cotton Development and Textile Industry 10-year roadmap
Textile and Apparel Import Substitute Product Identification and Analysis of Trade Balance
Public Administration in Ethiopia: Case Studies and Lessons for Sustainable Development
Export Trade Incentive Schemes Nexus Export Performance in Ethiopia
Business Opportunity Report, Ethiopia Textile & Apparel Industry
Factors Affecting Consumers' Attitude towards Domestic Products in Developing Countries: A Conceptual Paper
The Ethiopian Leather and Leather Products Sector: An Assessment of Export Potentials to Europe and Austria
Chemical and Construction Inputs Industry Development Institute 2013 – 2022 E.C. Strategic Plan
Analysis of Achievements and Challenges of Metal, Engineering, Chemicals and Construction Inputs Industries
Enhancing Basic Metal Industry Global Competitiveness Through Total Quality Management
Development of Ethiopian Steel industries; Challenges, Prospects and Policy Options
Analysis of Small Hydro Power for Rural Electrification
A natural experiment of industrial policy: Floriculture and the metal and engineering industries in Ethiopia Working Paper
Analysis Of Causes for Under-Capacity Production Of The Ethiopian Re-Bar Manufacturing Industry

Competitiveness of Ethiopian Industries: The Case of Metal & Metal Products Industry
Case Study Documents
The Political Economy of Argentina
Import Substitution and the Argentine Economy
Argentina's Import Substitution Industrialization in Historical Perspective
Changing Commercial Policy in Japan during 1985–2010
Industrial and Trade Policies of Japan: The Experience of the Postwar Period
The Economic Development of Japan: Sources of Economic Growth before World War II
Japanese Economic Development: From Postwar to Abenomics
The Japanese Economy
Russian Federation Industrial Production 2000-2022
Import Substitution and Production Localisation in Russia
Russia's import substitution: Effects and consequences
South Korea's Economic Development, 1948–1996
The Korean Miracle (1962-1980)
The story of VietNam's economic miracle
Vietnam's Industrial Policy Designing Policies for Sustainable Development
The evolution of Vietnamese industry
The German Miracle: An Analysis of the German Economy
Research and Development Expenditure, Trade Balance, Unemployment Rate, Industrial Production, Economic Growth
Innovation and Institutional Embeddedness of Multinational Companies
BMW Industrial Strategy 2030
The History of US Trade Policy
Trade wars, Trump tariffs and Protectionism Explained
he US Semiconductor Industry: Protectionist Policies and the Strategic Role of Government
The Economic Effects of Trade Protectionism: The US Steel Industry
Assessing the Impact of the Trump Administration's Tariffs
The Impact of the 2018 Trade War on U.S. Prices and Welfare

2.3.2 Methodology for identifying competitive products for import substitution

The exercise to identify competitive commodities for import substitution was carried out across the textile and apparel, leather and leather products, food and beverage, metal and engineering and chemical and construction inputs sectors and followed the following process.

I. Identification of competitive commodities through rigorous analytical framework – The project team developed a competitive framework model to identify sub-sectors and products with the greatest competitiveness potential to replace imports. Identification of these competitive sub-sectors and products involved using a model that assesses demand and supply both on the 2022 HS04 (product) level across several quantitative

and qualitative criteria- focusing on medium and large-scale manufacturers of the five sub-sectors. The criteria are developed based on the 1985 United Nations Conference on Trade and Development (UNCTAD) Trade and Development Report that analysed import substitution in developing countries [14]and the 2018 World Bank "Export Diversification and Economic Growth" report[15] that discusses the importance of import substitution as a means of promoting export diversification and economic growth and provides a framework for identifying and prioritizing goods for import substitution. Based on these scholarly works, the methodology for identifying competitive commodities and prioritizing for import substitution generally involves the following steps:

A. *Identify imported goods trend by volume and value (quantitative):* The first step is to identify the goods that are being imported, the volume of imports and their value over a certain period. This information can be obtained from various trade statistics. After identifying import volume and value, the next step under this is to identify those that we import the highest. For the Manufacturing Sector Import Substitution, the MoI focuses on five sectors that the Ministry is responsible for. This is the first step to identify the commodities that a country is spending its scares foreign currency. Once identified, we will rank those goods we import the highest (Table 3).

Table 3: Demand identification

Category	Criterion	Rationale	Specific metric	Definition[16]
Volume	Demand	Identifies sizeable and growing opportunist for identifying sub-sectors and commodities for substitution	Demand size in Tones	Total import values of commodities based on their HS 4 product level for the five sectors identified
			Demand growth in percent	Average of the YoY median growth rates from 2010 to 2021 for the five sectors total
Value			Demand size in USD	Total import values of commodities based on their HS 4 product level for the five sectors identified
			Demand growth in percent	Average of the YoY median growth rates from 2010 to 2021 for the five sectors total
Calculation method: The import volume and value refer to the quantitative measurement of the amount of goods that are imported over a specific period, usually expressed in units such dollar amount, as tons, liters, or number of units. The volume and value trend can be measured by tracking the changes in the volume of imported goods over time, usually on a monthly, quarterly, or yearly basis. For this strategy, we used yearly amounts. I. Selection of goods to be measured: The first step is to identify the goods to be measured				

[14] United Nations Conference on Trade and Development (UNCTAD). (1985). Trade and Development Report 1985. Retrieved from https://unctad.org/system/files/official-document/tdr5_en.pdf. https://unctad.org/system/files/official-document/tdr5_en.pdf

[15] World Bank. (2018). Export diversification and economic growth. Retrieved from https://documents.worldbank.org/en/publication/documents-reports/documentdetail/577921468150573677/export-diversification-and-economic-growth

[16] UNCTAD Handbook of Statistics 2022

based on the specify sector/sub-sector. This involves selecting the categories of goods that are most relevant to the industry or sector being analyzed. The goods selected may be based on their level of importance to the economy, their contribution to GDP, or their strategic value.

II. Secondary data collection: The next step is to collect data on the volume and value of imports for the selected goods. This data can be obtained from government agencies, customs and trade databases, or industry associations. We used ITC, UNCOMTRADE, ESS, MoR, and ECC.

III. Calculation of import volume trend: Once the data is collected, the import volume trend can be calculated. This involves tracking the changes in the volume of imports over time, usually by comparing the volume of imports in the current period with that of the previous period. The trend can be expressed as a percentage change or as a numerical value.

IV. Analysis of trend and ranking: The final step is to analyze the trend in volume and value of imports and identifying those that are highly demanded. This involves identifying any patterns, trends, or anomalies in the data and ranking according to their local demand.

B. *Determine the import dependency (quantitative):* The next step is to determine the level of import dependency for each imported good. This can be done by analysing the domestic production capacity and comparing it to the level of imports for each imported good. This step will identify how much a country depend on its imports by identifying its domestic production capacity of its substitute good in terms of volume. The smaller the gap between the import volume and the local production capacity, the lesser the dependency on the imported goods. If the gap is wide between domestic production volume and import volume, the higher a countries dependency on import for that particular good.

Table 4: Import dependency

Category	Criterion	Rationale	Specific metric	Definition[17]
Production capacity	Import dependency	Identifies a country's reliance on imported goods.	Production in value	The maximum possible output of a manufacturing business, measured in units of output per period.
			Production growth in value	Average of the YoY median production growth rates from 2010 to 2021 for the five sectors total.
Calculation method: Import dependency is determined by analyzing the ratio of a country's imports to its total domestic consumption or production. 1. Define the scope: The first step is to define the scope of the analysis. This involves determining which goods to include in the analysis, as well as the time frame for the analysis. Based on the five sectors and the H4 products identified above, the scope will be limited to those commodities identified 2. Collect data: The next step is to collect data on the country's production of the goods included in the analysis. This data can be obtained from government agencies, international trade databases, or industry associations. For this strategy, primary data from 156 manufactures was collected, supported by the ESS manufacturers survey of 2019/2020 years.				

[17] UNCTAD Handbook of Statistics 2022

3. Calculate import dependency ratio: Once the data is collected, the import dependency ratio can be calculated by dividing the value of imports converted into birr by the value of domestic production for those ranked goods based on the first exercise. The resulting ratio indicates the percentage of domestic demand covered by domestic for those imports.
4. Interpret the results: Finally, the import dependency ratio can be interpreted to determine the level of a country's import dependency. A high ratio indicates that the country is highly dependent on imports, while a low ratio indicates that the country is less dependent on imports hence less dependency on import.

C. *Identify the potential for import substitution (quantitative):* Once the import dependency is determined, the next step is to identify the potential for import substitution. This can be done by analysing the competitiveness of the domestic industry based on the identified demand and domestic production capacity of those goods. Several data points are analysed to determine competitiveness but mainly domestic sells price, local manufacturers cost efficiency, use of technology, and local raw materials are the key parameters. The local demand for the goods can be determined by looking into the import and local production trend. In addition to secondary data for this analysis, primary data is relevant to assess manufacturers/local producers' current capacity in relation to these measures.

Table 5: Potential for substitution - market characteristic

Category	Criteria	Rational	Specific metrics	Definition
Sells price	The amount that customer pays to purchase a product or from the market	Identification of substitutable goods manufacturers from price and cost competitiveness and from technology use and local sourcing perspective in comparison to the imported goods	ETB amount of the products	Per unit of measure, such as per piece, per pound, or per litre; due to data unavailability and anomalies, gross value of production data was used as proxy
Cost efficiency	Production cost of manufactures for identified high demand imported and locally produced products		Total cost divided by total output and % production capacity used	Trend of total cost per manufacturer of a product divided by trend of total output value in ETB; due to data anomalies, percentage of production capacity utilized was used as proxy

Technology	Technology use and adoption to improve production and competition efficiency		Type of technology used *(qualitative)*	No. of industries using manual, semi-automated, or automated technologies for production
Local raw material sourcing	Dependency on imported raw materials vs local		% of imported raw materials	Ratio of value of imported raw materials to total cost of raw materials (domestic + imported)

Calculation method: the potential of import substitution industries is evaluated by assessing their production performance, price and cost competitiveness, import dependence, technology adoption.

1. Define the scope: The first step is to define the scope of the analysis. This involves determining which goods to include in the analysis, as well as the time frame for the analysis. Based on the five sectors and the H4 products identified above, the scope will be limited to those commodities identified
2. Collect data: The next step is to collect data on the country's and surveyed firms' production, production capacity, sales, cost, import ratio, and technology use data for the prioritized commodities. For this strategy, country level production data was obtained from ESS manufacturers survey of 2019/2020 while primary data from 156 manufactures was collected.
3. Calculate production efficiency: once the data is collected, sales efficiency can be assessed by comparing per unit prices of commodities against that of import prices. Similarly, for cost efficiency, the trend of total cost per manufacturer of a product divided by trend of total output value can be used. However, due to data unavailability and anomalies in data submitted by the surveyed manufacturers, to assess overall production efficiency, the strategy evaluated overall growth in gross production of manufacturers and the percent of production capacity utilized to indicate the growth of sectors and the gap between potential production and current production to satisfy local demand of priority goods.
4. Calculate import dependency ratio: The import dependency ratio can be calculated by dividing the value of imported raw materials of manufacturers to the value of total cost of inputs (which includes the value of both imported and domestic raw materials required) for the priority commodities identified in the first exercise. The resulting ratio indicates the percentage of domestic demand for imported vs. domestic inputs for production of priority goods.
5. Evaluate technology utilization (qualitative): To evaluate the state of technology utilization across manufacturers, surveyed manufacturers discussed the type of machineries utilized for the production of priority goods. The categories indicated by manufacturers include manual, semi-automated, and fully automated manufacturing of priority goods.

D. *Prioritize the goods for import substitution (qualitative):* Based on the potential for import substitution, the next step is to prioritize the goods for import substitution.

This can be done by considering qualitative variables such as the impact of replacing the import of a certain good on the economy, the level of investment required to actual replace it locally, government focus in terms of policy support, the time required to achieve self-sufficiency, and conduciveness of the value-chain of the commodity in terms of the value chain development status.

II. *Desk review and synthesis of existing research* – Recognizing that significant prior work has been completed regarding production competitiveness improvement in Ethiopia, the selection of these commodities was complemented with a review of existing studies to explore the ecosystem, constraints, and the effectiveness of policy interventions to date. Various documents were reviewed including the 10-year plans of Ministry of Industry and Ministry of Agriculture, the MIDI document to identify competitive commodities have been priorly identified. Further, the project team also reviewed national policies and strategies. The complete list of documents reviewed is available in Table 2.

III. *Key stakeholder engagement and validation* – The team developed initial findings and held a public and private sector stakeholder engagement with exporters, development institutes, and associations. In addition, the team had a one-on-one engagement with the senior leadership at the Ministry of Agriculture, Ministry of Mines and Ministry of Trade and Regional Integration and Ministry of Industry to validate that the emerging insights were accurate, to get an up-to-date real-life perspective, and to fill identified gaps in the prior research.

In addition, through these stakeholder engagements the project team was able to identify competing priority products that are currently being considered for import substitution or limited to the domestic market for food security reasons. Finally, sub-sectors and products that would have more value through value-addition were identified.

Limitations of this approach

Although this is a common practice used to track changes in a country's import patterns over time and identify competitive goods for import substitute goods and manufacturers, and provides valuable insights into a country's trade dynamics, there are some limitations to consider, and the mitigations the strategy used:

Table 6: Limitations of the methodology and mitigation

Limitation	Mitigation
Incomplete data: The data used to track imports by volume and value is not complete or accurate. Ethiopia may not report all imports or may underreport the value or volume of imports. This can lead to errors or gaps in the data, which can affect the accuracy of the analysis. This is limitation is also observed when collecting primary data to identify import dependency and domestic potential. From national data sources such as ESS to survey of manufacturers, there were	To mitigate this limitation, the data used for this analysis are complete and made possible by using a combination of international and local data sources to complete and triangulate for accuracy. To address the challenges with regards to primary data from manufacturers, we have used several secondary data sources including MIDI data repository.

several gaps and anomalies in the data collected which affect the analysis.	
Currency fluctuations: Changes in exchange rates can affect the value of imports, making it difficult to compare import trends over time. A rise in the value of the local currency (ETB) relative to foreign currencies (USD) can make imports appear to be declining, even if the volume of imports remains the same.	To mitigate the impact of currency fluctuations, this strategy used inflation-adjusted values when comparing imports over time. This can provide a more accurate picture of changes in import trends.
Heterogeneous products: Some imported goods may be difficult to compare due to their heterogeneity. For example, it may be challenging to compare the value and volume of imports and production of different types of machinery or raw materials. This is mainly due to the use of Harmonized Systems (HS) code to track import of goods and services while production data is captured using the International Standard Industrial Classification (ISIC) system.	To mitigate this limitation, we group similar products together and track their import and production trends as a category using their HS 4 product classification. Furthermore, the strategy tracked imports by specific product categories using product H4 and H6 classification ID by using more detailed data on the price and quality of the imported goods from secondary sources.

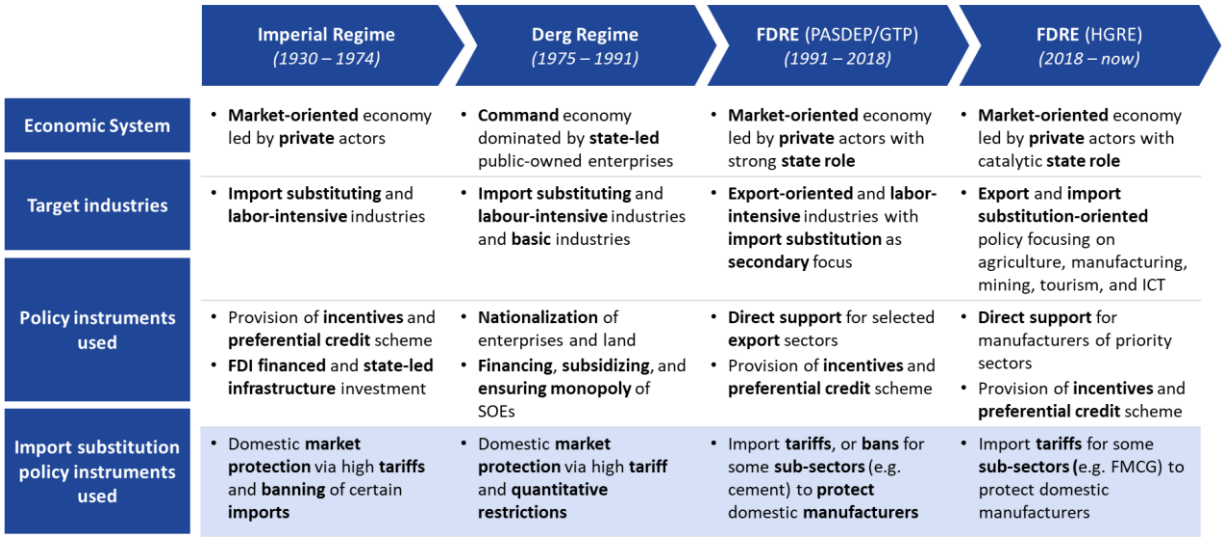
3 SECTION II

3.1 Ethiopia's Import Substitution Policies

3.1.1 Overview

From the 1950s to 2018s, Ethiopia had a series of inward industrialization policies that focused on state ownership and control of industry with swinging outcomes for the manufacturing sector. Although Ethiopia did not have an explicit import substitution strategy, protecting local markets and delinking industries from external supply, subsidizing capital goods import and production of raw materials, and government investment in roads, power, and water infrastructures are the key policy characteristics to encourage import substitution under the broader industrialization policy.

Figure 1: Ethiopia's import substitution policy trend overview



Source: (1) Industrial policy and development in Ethiopia: Evolution and present experimentation, Gebreyesus M, 2013; (2) Homegrown Economic Reform Agenda, Office of the Prime Minister, 2019

3.1.2 Pre 1991

The post WWII period from 1950's to early 70's saw a mixed industrialization policy with increased contribution of the manufacturing sector to the national economy. In the mixed approach to industrialization, under an ISI policy scope and supportive policy measures including consumer-oriented market measures and foreign direct investment facilitation, the sector's contribution to the GDP quadrupled from 1% in 1953 to 4.4% in 1974 [18]. Three policy factors contributed to the drastic increment; firstly the 1962 investment decree that offered an exemption from profit tax, duty-free machine imports, and equity participation in local firms for FDIs, secondly the establishment of state-owned large project such as utilities, services, factories, and commercial farms and lastly protective-tariff and state financing through the Development Bank of Ethiopia[19].

[18] Oqubay A. (2018). Industrial Policy and Late Industrialization in Ethiopia, Working Paper Series N° 303, African Development Bank, Abidjan, Côte d'Ivoire.

[19] Selamawit G K (2020). A Dissertation Submitted to the Department of Economics School of Graduate Studies of Addis Ababa University in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy in Development Economic. Addis Ababa, Ethiopia.

Centralized command system promoting import substitution under controlled planning led to the stagnation of the manufacturing sector from 1975 to 1991. No more mixed industrialization approach rather a pure import substitution policy and economic design were in place that focused on labour intensive light manufacturing with the continuation of state-owned enterprises taking a leading role in setting market conditions[20]. The policy had an anti-export bias, which also limited private sector involvement only to small enterprises such as grain mills[21]. The state had a monopoly over imports and exports, and four state-owned banks were the sole players in the financial sector. Moreover, labour and population mobility including private property ownership were tightly restricted. The labour-intensive industrialization period contributed not more than 5% to the GDP of the Ethiopian economy by 1991, with a marginal 0.5% increase in the more than a decade and half timeline.

Government inefficiency, lack of finance, and outdated policy measures led to the failure of the industrialization policy effectiveness, including import substitution measures: lack of investment in infrastructure due to mismanagement of state resources, lack of financing for domestic manufacturers and the private sector in particular, and hard-core restrictive trade policy practices failed and was unable to continue the growing manufacturing trajectory prior 1975. While countries transitioned there polices following global trends such as advent of technology in the manufacturing industry, Ethiopia's restrictive state apparatus failed to design progressive polices that utilized liberal trade principles and technology use an adoption. As a result, Ethiopia's products were unable to compete on cost in the international and domestic market leading to increased dependency on imports. In 1974, Ethiopia export share to the GDP dropped from 7.1% in 1970 -74 average level to 6.5% in 1991/92 in which Export in import financing contracted from 88.5% to 54.2% [22].

3.1.3 Post 1991

Holistic reform on government role in the economy, private sector orientation and tailored support for the manufacturing sector characterize Ethiopia's industrialization post-liberalization period from 1991 - 2018[23]. During this period, manufacturing in Ethiopia grew substantially spurred primarily by government investment. Liberalizing the banking sector and industries, putting in place government led industrial development schemes and programs, private -led export orientation have been the key policy interventions implemented to increase the share of manufacturing to the GDP post 1991. Some of these liberalized Public Owned Enterprises (POEs) include the food processing and textiles production industries to domestic and foreign investors. One thing however was clear from these policy interventions that the aptitude of the government to continue and follow previous inward industrialization policies and strategy was low, hence the restrictive ISI strategy was replaced by supportive ISI strategies that prioritized increasing local content and competitiveness overprotective tariff schemes.

National fiscal and financial sector reforms brought about noticeable impact on the manufacturing sector. Further to revising tax for manufacturing sector and introducing and sprouting private

[20] Tewodros M. Gebrewold (2015). The Effectiveness of Industrial Policy in Developing Countries: Causal Evidence from Ethiopian Manufacturing Firms. University of Leicester, UK.
[21] Newman, C. et al. (2016) Made in Africa: Learning to Compete in Industry. Washington D.C.: Brookings Institution's Press.
[22] https://eea-et.org/wp-content/uploads/2023/03/Berhanu-Lakew-DETERMINANTS-OF-ETHIOPIA-EXPORT.pdf#:~:text=The%20export%2FGDP%20ratio%20has%20declined%20from%20the%201970%2F71,further%20to%206.5%20percent%20in%201991%2F92%20%E2%80%93%202002%2F03.
[23] Equbay, Arkebe. "Made in Africa: Industrial Policy in Ethiopia." African Affairs 116, no. 462 (2017): 582-604.

commercial banks in the economy, reforms in commercial loan policies has been instrumental in reducing Ethiopia's reliance on imports by providing access to credit to facilitate the production of substitute products within the country. Liberalizing the banking sector led to deposit mobilization and credit expansion for state-led industrial projects, as well as private investment. This policy has aided in streamlining financing plans and undercutting imports, thus helping local industry benefit from the import substitution program [24]. Based on the review of different policy documents, three key interventions facilitated the growth of the manufacturing sector growth and the creation of SME ecosystem in Ethiopia, a conducive ecosystem for creating competitive industry and implement import substitution strategy.

I. **Tax revision was the major fiscal intervention that catered for manufacturing sector development post-liberalization.** Since 1991, Ethiopia enacted a uniform income tax system for both finance and manufacturing sectors[25]. Key reforms include a reduction in corporate taxes from 35% to 30% in 2000, the introduction of partial value-added taxation (VAT) in 2004, the establishment of a special purpose vehicle to acquire assets of distressed banks in 2009 and the full implementation of VAT across all sectors in 2014. These reforms allowed domestic and foreign firms to grow their productivity and diversify their markets as well as products.

II. **Policies to reform the policy bank ushered in an alternative financing source for investors and manufacturers.** The Ethiopian government implemented reforms to support the manufacturing sector. Providing access to crucial inputs such as capital goods and raw materials via preferential lending rates from banks or through state funding has been means of providing access to finance the sector. Coupled with the introduction of specialized financing programs to assist manufacturing companies in exporting including capacity building programs for manufacturers, the DBE has played a key role during this period.

III. **The introduction of microfinance institutions fostered small and medium scale manufacturing enterprises ecosystem.** In order to facilitate economic development and poverty reduction within manufacturing firms within Ethiopia, microfinance institutions were created by donor facilitation by law for providing financial services to small enterprises and to communities deemed un-bankable[26]. The institutions have enabled saving accounts, provided credit lines and other services such as training materials essential for activity within manufacturing firms especially for rural and relatively worse off urban communities.

The 1994 industrialization strategy, known as the "Industrial Development Strategy of Ethiopia," emphasized import substitution as a key component of the country's manufacturing sector development. The strategy aimed to promote domestic production of goods that were previously imported to reduce the country's reliance on imports and boost the domestic economy[27]. To achieve this goal, the strategy outlined several measures including import tariffs.

It proposed to put high tariff imposition on imported goods. The 1994 industrialization strategy proposed range of products that were subject to high tariffs consideration. Some of the specific products that were subject to high tariffs included imported agricultural products such as coffee, tea, and spices, as well as processed agricultural products like edible oils and sugar; imported textiles,

[24] Ibid.
[25] https://www.econstor.eu/bitstream/10419/63498/1/509140327.pdf
[26] Equbay, Arkebe. "Made in Africa: Industrial Policy in Ethiopia." African Affairs 116, no. 462 (2017): 582-604.
[27] 1994 Ethiopia Industrialization Strategy

garment, leather and leather products shoes, bags, and belts, as well as raw leather for processing; imported pharmaceuticals products, machinery, electronics, and automobiles; and imported chemicals and construction inputs are some of the products subject to high tariff.

The implementation of the import tariffs varied over time, and it is difficult to provide an exhaustive list of the specific tariffs imposed across time. The government set up a complex tariff structure, which aimed to protect local industries while also generating revenue for the government. The tariff structure included different rates for different types of products, with higher rates imposed on luxury goods and goods that were deemed to be harmful to the environment or public health. Up to now, Ethiopia continues to use import tariffs to protect domestic manufacturers. For instance, the country's 2020/2021 fiscal year tariff book includes a range of tariffs on different goods, including agricultural products, industrial inputs, and consumer goods. The specific tariffs imposed on different products are subject to change based on the needs of the domestic industry and the overall economic situation in the country[28]. However, in general, the Ethiopian government has maintained a policy of protecting domestic manufacturers through the use of tariffs, import licensing, and other measures.

Small-scale enterprises (SSEs) were identified as a key sector for promoting import substitution and industrialization under the "Developmental State" strategy. Special policy attention to selected sectors and communities was another measure under the 1994 industrialization strategy to implement import substitution. The special focus through proclamations and regulations for rural areas aimed at developing small enterprises and for selected sectors including the construction and horticulture sectors, attributed to inclusive economic development and increased manufacturing sector employment. The strategy recognized the importance of small and medium-sized enterprises (SMEs) in driving economic growth and job creation, hence the government has been implementing a range of policies and support measures to help them grow and compete in the domestic market including tax incentives, access to finance, and technical assistance.

One of the key policies implemented to support SSEs was the establishment of the Small and Micro Enterprise Development Agency (SMEDA) in 1997. SMEDA was tasked with promoting the development of small-scale enterprises by providing training, technical assistance, access to credit, and other forms of support. The agency also worked to create an enabling environment for SSEs by simplifying business registration procedures, providing access to market information, and promoting linkages between SSEs and larger firms.

Another important import substitution policy implemented to support SSEs was the establishment of special economic zones (SEZs), which provided targeted support and incentives to SSEs operating in specific industries. These zones were established in strategic locations across the country and offered benefits such as tax exemptions, simplified business registration procedures, and access to infrastructure and support services. In addition to these policies, the government also implemented measures to improve access to credit for SSEs. This included the establishment of microfinance institutions (MFIs) and the creation of a credit guarantee scheme, which provided guarantees to commercial banks that lent to SSEs. The government also worked to create linkages between SSEs and larger firms, in order to provide them with access to technology, marketing channels, and other resources.

[28] በአገሪቱ የኢኮኖሚ ማሻሻያ ፕሮግራም የዘጠነኛው ዙር የኑምሩክ ታሪፍ ማሻሻያ አጭር ሪፖርት 2017፤ የገንዘብ ሚኒስቴር አዲስ አበባ

The government did not rely solely on import substitution policies to promote industrialization under the 1994 strategy and the subsequent industry development strategies. The government also encouraged foreign investment in key industries, such as floriculture, cement textiles and leather, and promoted the development of export-oriented industries by establishing export processing zones or industrial parks including the provision of incentives and support services to help these industries grow and compete globally.

The regime followed unclear economic orientation – in one hand it promoted export-oriented industrialization for the private sector to take the lead in manufacturing industries and value-addition and on the other hand it relied on heavy government investments through the expansion of stat-led investment projects. Bold measures targeting domestic producers, markets and manufacturing industries were largely abandoned, rather export promotion, monitory policy revision and preferential incentive schemes were chosen to promote industrialization focusing on industry park enterprises and FDIs[29]. With several interventions underway to industrialisation in Ethiopia, the manufacturing sector contribution to the GDP remain below SSA average.

Overall, the Ethiopian government's "Developmental State" strategy represented a mix of import substitution policies, export-oriented industrialization, and public investment in agriculture and manufacturing. While the government did implement import tariffs to protect local industries, it also took a more nuanced approach that focused on developing key industries and promoting growth in multiple sectors of the economy.

Currently, the Government of Ethiopia is driving an ambitious economic reform under the Homegrown Economic Reform agenda, accompanied by a comprehensive 10-year perspective plan. Among the plan's key priorities is the manufacturing sector, and the government has set forth a series of objectives to support its development. One of the main targets is to significantly increase the average industrial capacity utilization within the manufacturing industry, aiming to raise it from the current 50% to 85%. Additionally, the government aims to foster the growth of small and medium-scale manufacturing enterprises by attracting high-quality investments and focusing on industries that leverage advanced technologies. With that, the goal is to expand the number of such enterprises from 2,000 to 11,000. Moreover, the government envisions the creation of 5 million new job opportunities within the manufacturing sector. This will be achieved by substantially increasing the number of job opportunities created annually, scaling up from 175 thousand to an estimated 850 thousand. These ambitious plans demonstrate Ethiopia's commitment to fostering industrial growth, job creation, and technological advancement in the manufacturing sector.

Import substitution plays a crucial role in the government's strategy for manufacturing development in Ethiopia. With the objective of reducing dependence on imports, the government has outlined plans to expand the manufacturing industries that produce substitutes for strategically imported goods. By bolstering the competitiveness of domestically manufactured industrial products, the government envisions raising the domestic market share of these products from 30% to 60%. Moreover, the government aims to capitalize on this increased domestic production by boosting export output from these products with a goal to elevate overall export production from the current USD 3 billion to a remarkable USD 18.3 billion of which USD 9 billion is targeted to come from the

[29] 1994 Ethiopia Industrialization Strategy

manufacturing sector[30]. Through these measures, the government seeks to enhance domestic competitiveness and drive the growth of strategic and viable industrial products, solidifying Ethiopia's position in the global manufacturing landscape.

3.2 Ethiopia's Import Trade Performance

Ethiopia's trade balance has been in deficit for a long time. According to the latest data of the Atlas of Economic Complexity (Figure 2) the trade deficit was at $7 billion in 2012 which increased to $13 billion in 2014. In 2020, the deficit decreased slightly to $6.8 billion due to a decrease in imports caused by the COVID-19 pandemic. Due to prolonged global trade recovery, the conflict in the Northern part of the country and the war in Ukraine, imports are expected to remain low in 2021 with a slight increase than 2020. The pattern of Ethiopia's trade balance deficiency over the years is mainly due to the country's reliance on imports for its economic growth and development. The role of export trade in the economy has been in decline, diminishing from 12.2 percent of GDP in 2011 to 6.7 percent in 2020, with a significant reduction in the import to GDP ratio from 22.5 percent in 2011 to 12.8 percent in 2020. Export performance has historically been low, both in value terms, as well as a share of GDP. The trade deficit is driven largely by the gap between the value of Ethiopia's exports and imports of goods, as the country has a relatively small services sector.

Figure 2: National trade balance trend (2010-2020 Bn USD)

Source: Atlas of Economic Complexity, Harvard University Growth Lab

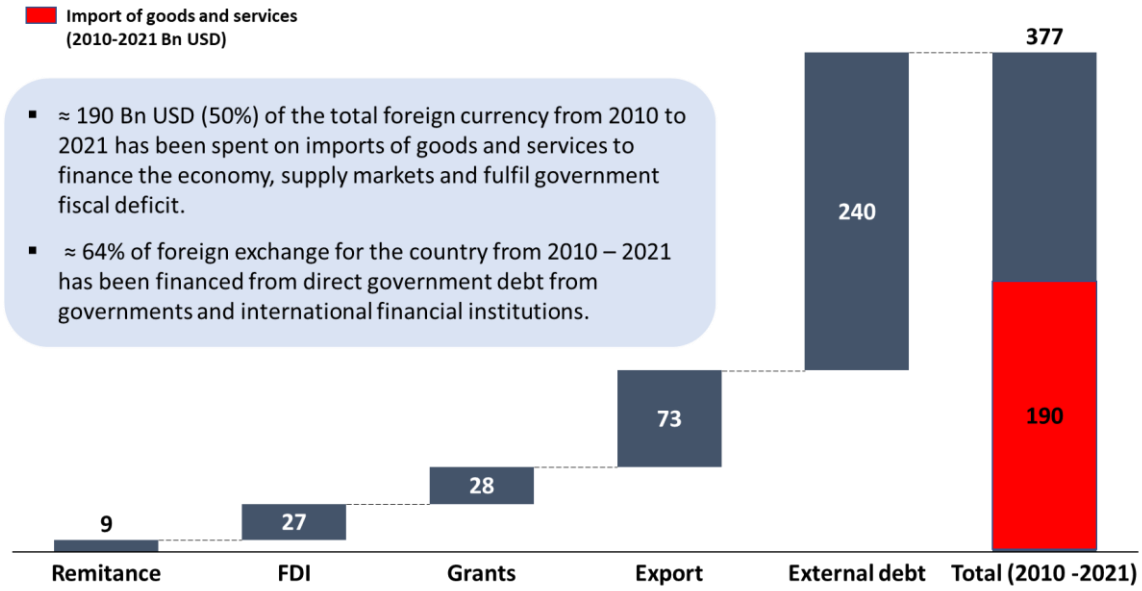
Ethiopia's trade composition consists of export commodities include coffee, oilseeds, flowers, and vegetables, while the top import commodities include machinery, vehicles, and fuel. Ethiopia's import trade composition is diverse, with a variety of goods being imported into the country. According to the latest data available from NBE in 2020, the top imports into Ethiopia and their respective shares of total imports were refined petroleum (12.4%), pharmaceuticals (6.5%), fertilizer (4.5%) wheat (4.4%), cars (4.1%), palm oil (3.6%), telecom equipment (3.4%), rice (2.9%), machinery for electricity (2.8%), and other furniture (2.5%). Other significant imports into Ethiopia include cement, sugar, iron and steel, and textiles. Overall, Ethiopia's trade balance deficiency has been a persistent challenge for the country's economic growth and development, and efforts to address this

[30] Planning and Development Commission, Ten Years Development Plan 2021 – 2030, 2020.

issue will require a combination of measures to boost export competitiveness, reduce import dependence, and attract more foreign direct investment.

Ethiopia's imports are financed by the country's financing model to implement its development policy and meet the domestic demand for goods and services. Ethiopia's investment boom was financed through succeeding influxes of foreign aid and external borrowing to drive the state-led economic and industrialization agenda, and social development. Government loans in the form of external debt 30 billion USD in 2021 drive imports financed mainly by international financial institutions such as the World Bank, ExcimBank of China, Africa Development Bank and International Monetary Fund. These loans were often used to import essential goods and services, such as fuel, food, and medical supplies and provide input for sector-based demands including mega government projects.

Figure 3: Total source of foreign exchange and imports (2010-2021 Bn USD)



Source: World bank World Economic Indicator

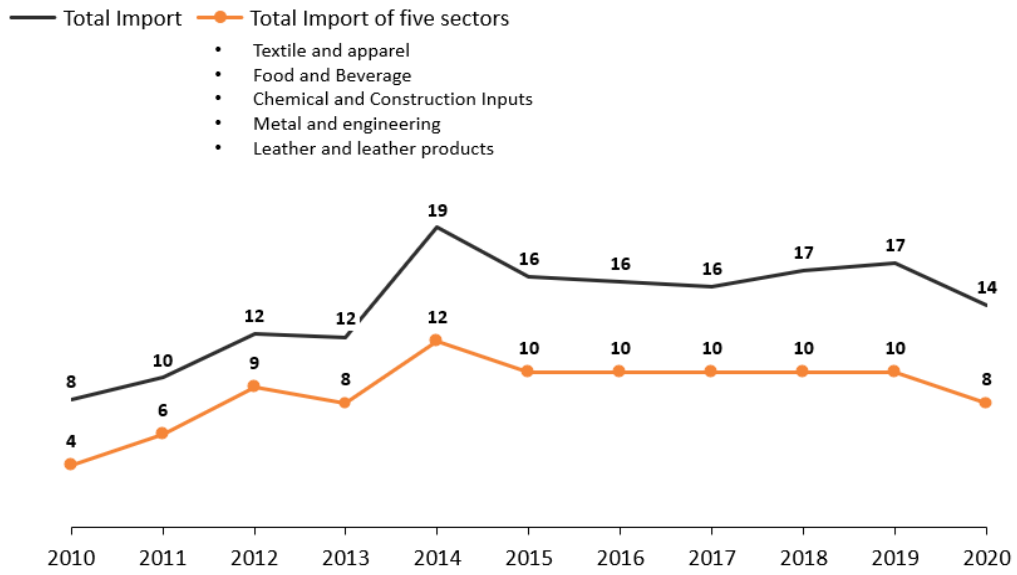
The second largest source of foreign currency in recent years has been the export estimated up to $ 8 billion in 2021 cumulatively. Ethiopia's exports per capita remain low with an annual growth rate of less than 5% from 5.3 billion in 2010 to 8 billion in 2021 - the major export items besides primary commodities is the service sector specifically the transportation sector due to Ethiopian airlines where more than 4 billion USD is generated in 2021. The third source of foreign currency is the FDI. Ethiopia has attracted significant FDI in recent years, which has contributed to the growth of its economy and import sector however foreign companies also import goods, services, and equipment from abroad to support their operations. The last sources of foreign currency for Ethiopia are remittance and grants both volatile in year-to-year value due to several factors including political, social and government institutions stability.

Capital and consumer goods are the largest imports to Ethiopia with the later expected to be larger in the coming years. Driven by rapidly growing population, expanding economy, and increasing urbanization Ethiopia's imports account semi-finished (22.4%), capital goods (29.7%), fuel (15.9%) and

consumer goods (28.9%) in rapidly growing population, expanding economy, and increasing urbanization based on NBE 2019/2020 report. From the total capital goods, 96.3% are industrial goods imports for the manufacturing sector and the remaining 3.7% account for capital goods for agriculture and transport sectors. Ethiopia's consumer goods market has been expanding rapidly in recent years.

Some of the largest consumer goods imported to Ethiopia include vehicles imports both new and used vehicles to meet the growing demand for transportation; electronics import driven by increasing use of technology such as smartphones, laptops, and home/office appliances are in high demand.; textiles and apparel are the other largest imports followed by food and beverage and cosmetics. According to figure 4, summarizes the major consumer and capital goods import category for textile and apparel, leather and leather products, food and beverage, chemical and construction inputs and metal and engineering sectors and their share from the total imports.

Figure 4: Total imports and the share of imports of selected five manufacturing sub-sectors (Bn USD)



Source: Atlas of Economic Complexity, Harvard University Growth Lab: https://atlas.cid.harvard.edu/explore/stack?country=73&year=2020&queryLevel=location&startYear=1995&productClass=HS&tradeDirection=import&product=undefined&target=Product&partner=undefined;

Note: sector categorization of Growth Lab data is re-organized to fit this strategy sector and product categorization.

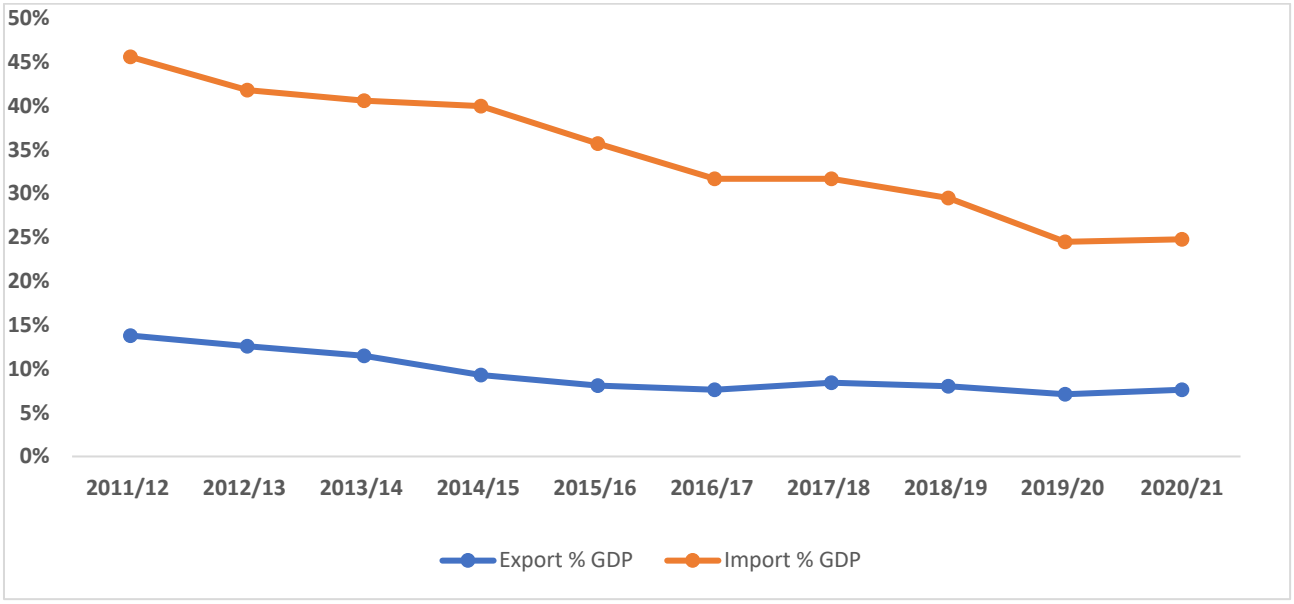
Ethiopia has been investing heavily in infrastructure development, which has led to an increase in imports of machinery, equipment, and raw materials. In the past ten years from 2010-2020, the highest import is recorded in 2014 where the five sectors combined imported close to 85% of the country total import with a value of $ 12 billion from the total imports of $ 14 billion USD. Over the years, the average share of imports of these sectors stands at 65% of the total imports of the country. Respectively, the highest importing sectors are the metal and engineering sector with an average 49% and chemical and construction input sector with an average 34% of total import share of these sectors for the trend years selected.

Underdeveloped and heavily commodity-concentrated product export portfolio has undermined Ethiopia's path to inclusive growth. As can be seen in figure 5, Ethiopia's export receipts remain less than 15% of GDP[31] with import 25%, where the export ratio is relatively lower than expectations of

[31] World Bank, WTO Accession, and Impacts on the Poor

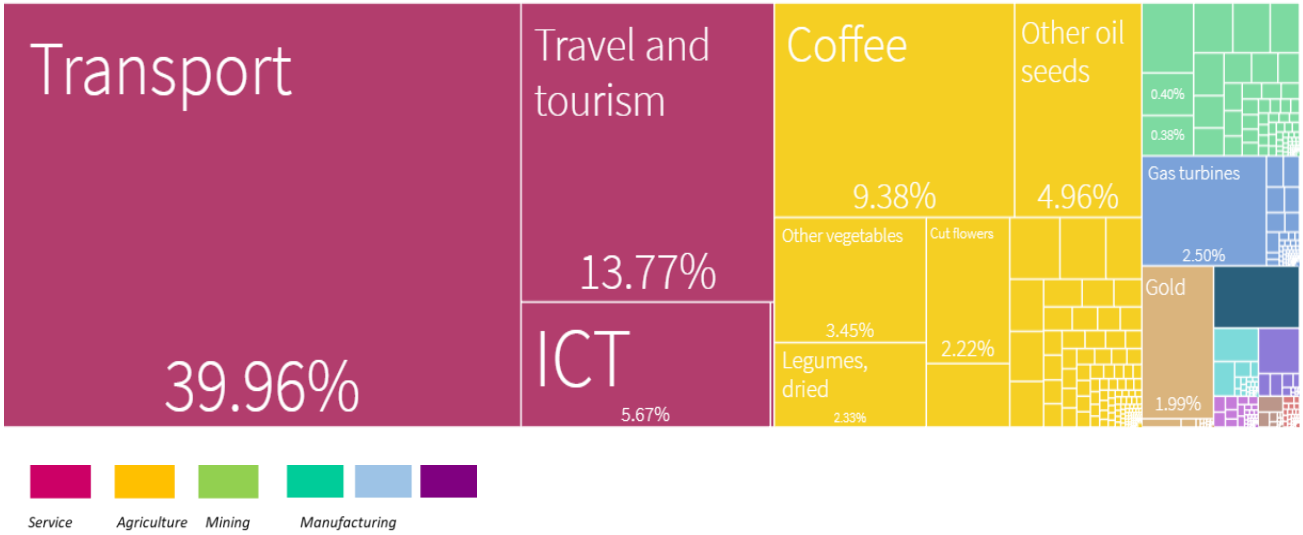
~24% for a country of its size well below most countries including Rwanda and India which achieved 21% and 18% respectively[32] and are heavily concentrated in few sectors and basic commodities (see figure 4). Other countries that have grown to middle-income status, like Vietnam and China, have achieved much higher ratios of exports-to-GDP (106% and 18% in 2020, respectively)[33]. With forex shortages presenting an increasing challenge, and the public sector-led model running its course, exports are a priority for Ethiopia.

Figure 5: Ethiopia's import and export share to GDP



Source: Atlas of Economic Complexity, Harvard University Growth Lab

Figure 6: Ethiopia's import mix in 2020



Source: Atlas of Economic Complexity, Harvard University Growth Lab

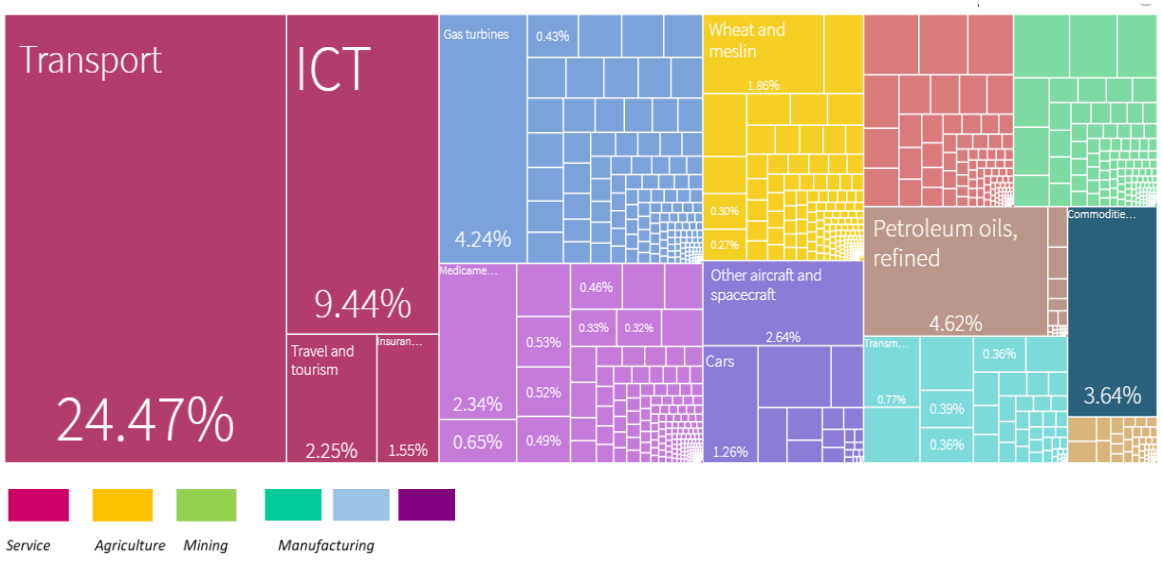
[32] The Case of Ethiopia, 2020 World Bank, Exports of goods and services (% of GDP), Accessed 12 October 2021

[33] World Bank, database. Accessed October 2021

Ethiopia imports a variety of commodities in terms of transport and ICT services that are the highest imports in 2020. As can be seen under figure 6, the main commodities imported under the transportation service sectors include vehicles (e.g., cars, buses, trucks, motorcycles), aircraft parts and equipment, ships and boats, railway, and tramway locomotives, rolling stock and parts, and bicycle and bicycle parts are the main items imported. When it comes to ICT, computer hardware and software equipment, telecommunications equipment, and accessories (e.g., mobile phones, SIM cards, routers, switches, modems), satellite equipment and services, electronic components and parts (e.g., microprocessors, memory chips, transistors) and IT consulting and other professional services are the main drivers of ICT import to Ethiopia in 2020. It's worth noting that Ethiopia has been making efforts to develop its own ICT sector, particularly in software development and business process outsourcing. As such, the country may become less reliant on imports in the future.

Limited export diversification, low value-earning on low value commodities, devaluation, and a low national production capacity are the main factors for Ethiopia's export underdevelopment. For example (see figure 7), in 2020, Ethiopia exported USD 7.05 billion in goods and services for which the country received an economic complexity score of -0.88, ranking 97 out of 146 countries, and far behind other countries in the region such as Kenya ranking 80, with an export complexity score (ECI) -0.47 and 103 in total exports ($6.52B)[34].

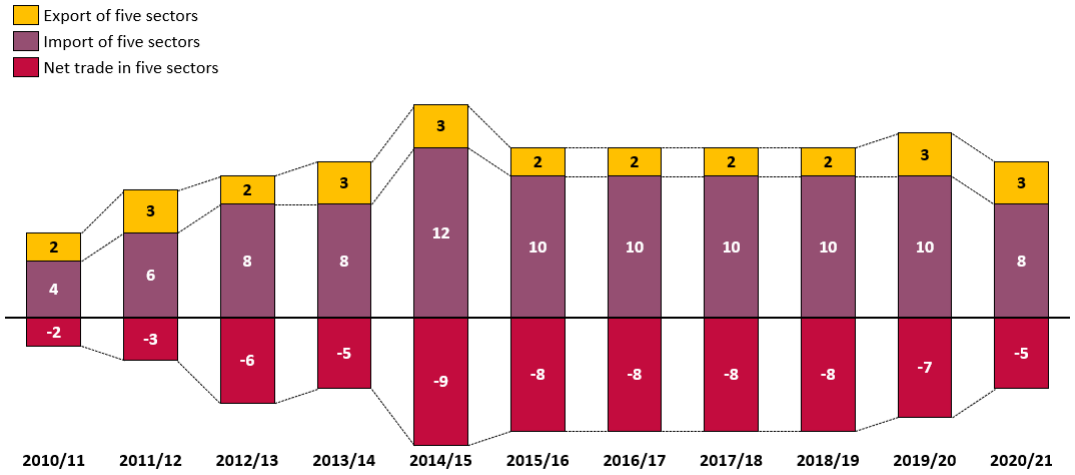
Figure 7: Ethiopia's export mix in 2020



Manufacturing industries in Ethiopia are net importers with a negative trade balance over the last ten years, with a stagnant export and a linearly growing import. Specifically, merchandise exports accounted by UNCOMTRADE grow at a substantially larger rate throughout the 2013-2014 years only to fall steeply below the IMF reporting around 2015. The trends reported by the IMF match preliminary estimates obtained from the NBE, which also show a stagnation of merchandise exports after 2012 (instead of a rise and fall pattern). As can be see under figure 8, the CAGR imports of the five sectors in the manufacturing sector have been increasing by a staggering 7% and only by 2% in export augmented the net negative balance for these sub-sectors.

[34] National Export Development Strategy White Paper, Ministry of Trade and Regional integration; 2020.

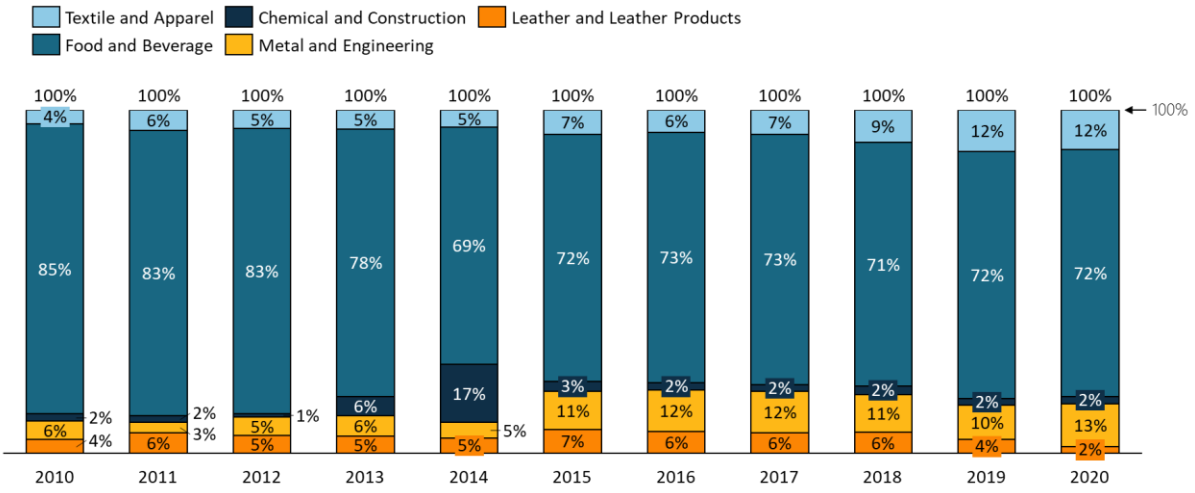
Figure 8: Five sub-sectors trade balance (2020-2020 Bn USD)



Source: Authors calculation using data from Atlas of Economic Complexity, Harvard University Growth Lab; Note (i) sector categorization of Growth Lab data is re-organized to fit this strategy sector and product categorization; Note (ii) the import and export figures for the agro-processing sector include agricultural products used as inputs for the manufacturing of food and beverage, textile and apparel, and leather and leather products resulting in the relatively high numbers when compounded for the five sub-sectors.

The nascent growth in manufactured goods export is mainly driven by government support, low cost of labour for manufacturers, access to market facilitated through preferential trade agreements, infrastructure development and industrial park development in this period are the main contributors for the small but growing manufactured goods export.

Figure 9: Export Share of the five manufacturing sub-sectors (%)

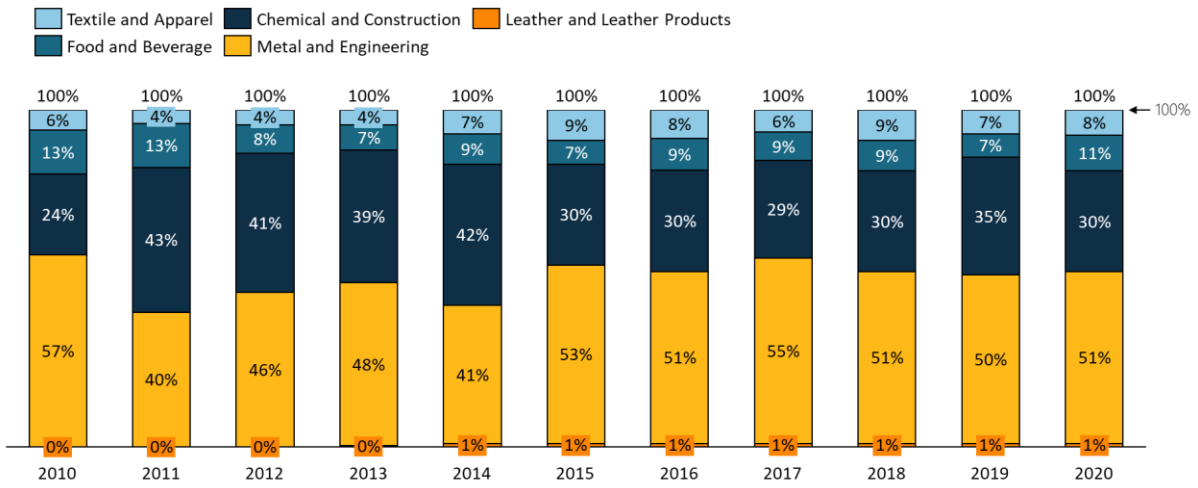


Source: Authors calculation using data from Atlas of Economic Complexity, Harvard University Growth Lab

The largest manufactured goods export comes from the food and beverage sector where besides the export of the major primary commodities such as coffee, oil seeds and pulses export of tea, spices, and cut flower are the main items exported. The main destination markets for this product category

are China with the largest destination market for Ethiopia's manufactured goods accounting 16.6% of Ethiopia's total export revenue with United States, Saudi Arabia, Germany, and the Netherlands accounting 11%, 10.4%, 7.6% and 4.7% respectively.

Figure 10: Import share of the manufacturing five sub-sectors (%)



Source: Authors calculation using data from Atlas of Economic Complexity, Harvard University Growth Lab

In summary, the manufacturing sector, these selected five sectors, are net importers of goods, with incommensurate export where some sectors have a much significant import than others.

A. **Metal and engineering are the largest import accounting more than 50% of imports from the five sectors with more than 4 billion USD spent in 2020**. The metal and engineering sector is an important component of Ethiopia's economy, and the country imports a range of commodities to support its growing industry. Some of the specific commodities that Ethiopia imports in this sector include iron and steels products such as coils, plates, pipes, and bars for use in construction, manufacturing, and other industries, wide range of machinery and equipment, various electrical equipment, automotive and automotive parts and accessories and non-ferrous metals: such as copper, aluminium, and zinc for use in various industries.

B. **Chemical and construction inputs sector import amounted between 1 billion to 5.2 billion USD from 2010-2020, more than 34% from the selected sectors.** Some of the specific commodities that Ethiopia imports in this sector include chemicals such as fertilizers, pesticides, and other chemicals used in the manufacturing and agriculture sectors, cement, construction materials import such as aluminium, glass, and other construction materials, various types of plastics including polyethylene and polypropylene; and paints including coatings, and related are also the major import commodities.

C. **Ethiopia's third largest imports are food and beverage commodities with an average of more than 700 MN USD in the last ten years.** Some of the specific commodities that Ethiopia imports in this sector include primary commodity used as inputs such as wheat from countries such as Russia, Ukraine, and Canada; sugar from various countries such as Brazil, India, and Thailand; edible oil such as sunflower oil, soybean oil, and palm oil, for use in cooking and food processing; meat, including beef, chicken, and mutton, from countries such as Brazil and Australia; and lastly beverages including soft and alcoholic drinks, beer, and wine, from countries such as Kenya and South Africa.

D. **Ethiopia is a major importer of textile and apparel products accounting more than 600 MN USD annually on average, with the majority of its imports coming from Asia, particularly China, India, and Bangladesh.** Some of the specific commodities that Ethiopia imports for the textile and apparel sector include yarn, particularly cotton yarn; fabrics: including cotton, polyester, and blended fabrics; finished garments, including T-shirts, shirts, dresses, and pants; textile accessories, such as zippers, buttons, and elastic bands, which are used in the production of garments; raw cotton from countries like Vietnam, Pakistan, and India; synthetic fibres such as polyester and nylon, which are used in the production of fabrics and clothing; and lastly dyeing and finishing chemicals, sewing machines and accessories are also some specific import commodities under this sector.

E. **With less than 60 MN USD on average in the past ten years, the leather and leather products are the lowest in import value compared to the five sectors.** Imports in 2021 were mainly raw hides and skins including fur skins worth $45.9 million, $28.6 million of leather footwear, $8.6 million of leather articles including bags, belts, gloves, and saddlery, import of $6.6 million of tanned or crust hides and skins, and $2.2 million import of leather apparel including jackets and coats. It's important to note that these figures are subject to change as new trade data becomes available. Additionally, there may be other imports of leather and leather products that are not included in this list.

3.3 The Rationale for Developing Import Substitution Strategy Now

To create macroeconomic stability, implementing import substitution strategies has a short-long term implication on exchange rate and interest rate, inflation, trade balance and a country's self-sufficiency program. Based on a study carried out in Ghana to examine the impact of IS policy on exchange rate and trade balance, the implementation of IS policy assured the appreciation and stabilization of the domestic currency value in Ghana without depleting the international reserves in the long run based on quarterly data used from 1990 to 2021 improving domestic production capacity and trade balance[35], managed inflation and interest rate to the appropriate level and resulted in increased production capability. On another study, conducted in Argentina, when external shocks are managed properly, IS policy can bring about an improvement on the overall economy[36].

Working on IS for stabilizing the macroeconomy from a long-term point of view is well grounded on the fact that Ethiopia is in shortage of foreign currency as a predominantly importing country.

As a political strategy and sovereignty assuring food self-sufficiency is one rational for a country to engage in import substitution. According to the report of the Food and Agriculture Organization of the United Nations (FAO) on global food security the major driver of global politics will be food security and self-sufficiency in 2050[37]. Import substitution here provides the most probable government plan of action to increase and restore food security (Bunchikov, et al., 2018; Soboleva, et al., 2018)[38].

[35] https://academicjournals.org/journal/JEIF/article-full-text-pdf/93B51C069533

[36] P. Ruben Mercado (2001) Macroeconomic Volatility during Argentina's Import Substitution Stage, International Review of Applied Economics, 15:2, 151-161, DOI: 10.1080/02692170151137014

[37] https://www.fao.org/3/cc0639en/cc0639en.pdf

[38] Bunchikov, O., Usenko, L., Usenko, A., Ponomareva, E., & Kalashnikov, A. (2018). Diagnostics and management of the regional potential of food import phase-out. Revista Espacios, 39(45) 31

Food security through import substitution strategy is integral to Ethiopia's national security and sovereignty specially in times of global food market disruption to produce as much high-quality food that will be enough to meet the population's need for food first, and to meet its national industry raw-material demand.

The need to implement predetermined national development plans – increasing the value-addition of the manufacturing industry to the industry sector, and to the GDP to 13.2% and 17.2% from 5.8% and 6.9% respectively is the Ten Years Development Plan (TYDP) targets for 2030. Unlike previous industry plans, TYDP underlines the inward industrialization priority by the government for quality economic growth through prioritizing both export and import substitution. This called for the productive sectors to develop policies, design programs, and develop strategies to outline their plan of action to deliver on the national commitment.

The Ethiopian government has set a national target to boost the market share of domestically produced manufactured goods from 30% to 60% by increasing the productivity and competitiveness of the manufacturing industry.

To address Ethiopia's industrialization paradox and bring about improved competitiveness: Ethiopia's notable rapid progress in infrastructure development especially the development of the industry parks has attracted FDIs into the manufacturing industry has not kept pace with the country's overall industry growth. Based on UNCTAD's National Productivity Capacity Gap Assessment of Ethiopia, since sitting on the 169th on countries overall PCI ranking in 2018, the country PCI dragged down further by its weak performance in manufacturing value-add to GDP, dependence on the production and export of low-value agricultural commodities, with little or no technological sophistication[39] This is a "Paradox" or leading to a mismatch between poor export performance-particularly in exports of manufactured goods-and a persistent impressive economic growth 'double digit" has been persistent, despite concerted efforts to push the export-led industrialization agenda.

Despite the growth in the manufacturing sector, the rate grew by a 2.6% margin from 4.3% in 2013 to 6.9% in 2021 due to low-capacity utilization, high import dependency for raw materials, low export value addition, limited private sector participation, low competitiveness in the global market, and a decline in demand for Ethiopia's merchandise both in domestic and export

3.4 Defining Import Substitution Strategy and the Key Principles

There are ten design principles recommended for developing countries by Dani Rodrik when designing inward looking industrial strategies that countries ought to constitute[40]. According to these principles, import substitution strategy used as a tool for inward industrialization ought to be tailored towards competitive industries incorporating performance-based and time-bound government support/incentive.

Whereas according to the IMF a well-conceived and effectively implemented import substitution strategy can make a substantial contribution to foster industrialization and higher incomes if focused on competitive products and markets, with concurrently a judicious program of export

[39] National Production Capacity Gap assessment; UNCTAD, 2022.
[40] https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/industrial-policy-twenty-first-century.pdf

expansion[41]. Countries out to put in place time-bound strategies first prioritizing domestic production of consumer goods replacing import components with domestic production and raw materials. High tariff of imported consumer goods and raw materials focusing on targeted support to producers of selected consumer goods is the primary stage of import substitution strategy. The second stage of import substitution is replacing intermediate and capital goods. Shifting support and tariff protection, if imposed, to local producers of high-value goods, while improving the old economic policies that are no longer applicable in the second stage of import substitution and gradually moving to the third stage of high-value goods are the strategies countries ought to take into consideration.

For Ethiopia's Manufacturing industry, there is no specific legal framework to refer to that defines what import substitution is, neither restriction not to develop one. Below is a summary of some of these legal frameworks, principles and practices discussing import substitution in the country.

Table 7: Summary of IS national and institutional regulatory principles and interventions

National regulatory frameworks and import substitution:

There are legal frameworks to consider before defining imports substitution and what it constitutes. 28 proclamations, seven regulations, three directives and 35 bilateral agreements guide trade and business operations in and into Ethiopia. This strategy reviewed four legal frameworks before defining import substitution and its principles:

I. **Proclamation No 1243/2021 the Commercial Code**: The Commercial Code Article 5 allows traders to engage freely in trading as importers of goods to the domestic market or as exporters to the foreign market [42]. Any industrial policy, strategies and instruments thereof ought to adhere to the free-market legal principles whereby a policy to promote import should not hamper importers from competing in the domestic market and exporters from exporting to the export market.

II. **Trade Practice and Consumers' Protection Proclamation 685/2010:** in accordance with free market principles, this proclamation protects the business community from anti-competitive and unfair market practices, misleading consumers and instructs to establish a system that will allow the creation of conducive environment for the protection of competitive markets in Ethiopia.

    Per this proclamation, the definition of anti-competitiveness means limiting competitive capacity of other businesspersons by acts including selling at loss, reducing prices for taking over business and technology, restricting entry, restricting the supply of goods, determine selling prices, and limiting consumer choices or users[43]. Hence, any policy, strategy and practices by the government or the private sector creating anti-competitiveness by creating market dominance, determining prices, and restricting direct and indirect market entry is prohibited.

III. **Africa Continental Free Trade Area Protocol on Trade in Goods:** The AfCFTA is designed to promote intra-African trade by reducing trade barriers and creating a single market for goods and services

[41] https://www.elibrary.imf.org/downloadpdf/journals/022/0008/003/article-A005-en.pdf
[42] https://www.lawethiopia.com/images/draft%20laws/commercial%20law/Commercial%20Code%202%20Complete%20Final%20Draft%20in%20English%20HoPR.pdf
[43] https://www.lawethiopia.com/images/federal_proclamation/proclamations_by_number/685.ae.pdf

across the continent[44]. While the agreement is aimed at promoting free trade, it also includes provisions to protect local industries and promote economic development in member states. For example, the AfCFTA trade in goods protocol includes provisions for safeguard measures that allow member states to protect their domestic industries in case of a surge in imports that may cause harm to local producers.

The agreement also includes provisions for special and differential treatment for least developed countries, such as Ethiopia, to support their integration into the continental market and to promote their economic development. The specific protocols and policies that Ethiopia has put in place to protect its local industries under the AfCFTA would depend on the legal and regulatory framework established by the Ethiopian government. However, the AfCFTA includes provisions that recognize the need for member states to protect their local industries while also promoting intra-African trade and economic integration.

IV. **World Trade Organization (WTO) Protocol on Trade in Goods:** The WTO advocates for open and non-discriminatory trade, but it also recognizes the importance of protecting domestic industries and promoting economic development. By utilizing safeguard measures and leveraging special and differential treatment, Ethiopia can strike a balance between protecting its local industries and promoting economic integration within the WTO framework.

For instance, in the event of serious balance-of-payments and external financial difficulties or threat thereof, the WTO allows member states to adopt or maintain restrictions on trade as it is recognized that particular pressures on the balance of payments of a member in the process of economic development or economic transition may necessitate the use of restrictions to ensure the maintenance of a level of financial reserves adequate for the implementation of its programme of economic development or economic transition[45] so long as the restriction do not discriminate among other members. Measures such as this can serve as a safety valve for countries like Ethiopia, enabling them to shield their industries while they develop and strengthen their domestic capabilities. By utilizing these provisions, Ethiopia can safeguard its industries during the implementation of IS policies.

Responsible institutions for import substitution and interventions:

Four key institutions regulatory mandates and on-going interventions are reviewed to identify principles and role of government in promoting import substitution in Ethiopia:

1) **Ministry of Industry:** according to Proclamation No. 1263/2021 defining the powers and duties of the executive organs in Ethiopia, the Ministry of Industry has a clear mandate and responsibility to support import substitution by:

   I. support the substitution of import goods, other than those entrusted to the Ministry of Mines, having strategic importance with domestic products.

[44] https://au.int/sites/default/files/treaties/36437-treaty-consolidated_text_on_cfta_-_en.pdf
[45] https://www.wto.org/english/docs_e/legal_e/26-gats_01_e.htm#ArticleII

II. formulate policies, strategies, programs and legal framework that ensure the development and competitiveness of the industry in particular the development of the manufacturing industry in a sustainable manner.
III. create an enabling system for enhanced participation and role of the private sector in the industry in particular in the manufacturing industry.
IV. create conducive conditions for the participation of domestic and foreign investors in the investment of manufacturing industry sector in accordance with the investment laws.

2) **Ministry of Mines:** The Proclamation No. 1367/2020 of the Ministry of Mines and Petroleum of Ethiopia is responsible for 'Promoting Import Substitution through Value Addition' [46]specifically:
   I. promote the development of domestic mineral resources, processing and value-addition and encourage investment in the mining sector.
   II. encourage the use of local resources and raw materials in industry and manufacturing including the development of small-scale and artisanal mining activities to create employment opportunities and reduce poverty.

   There are ongoing programs and policy level interventions to encourage import substitution including the development of chemical fertilizer manufacturing, promoting the use of local coal to substitute for the imported coals, and restricting the iron scrap export for domestic use are some examples.

3) **Ministry of Agriculture:** according to proclamation No. 953/2016 the Ministry of Agriculture plays a significant role in import substitution, specifically by promoting the use of locally produced agricultural inputs such as fertilizers, seeds, and agrochemicals through research and development, local product awareness, and providing technical assistance to farmers and other stakeholders to adopt local product.

   The national Wheat Initiative[47], the PMO-MoA jointly led effort is an ongoing import substitution national initiative launched in 2019 as part of the government's broader import substitution strategy focused on increasing the productivity and competitiveness of the wheat sector through research and development, promoting the adoption of modern farming practices, improving access to finance and markets, and investing in infrastructure to support wheat production and processing. **The intervention puts no policy restriction on imports, rather by providing selected intervention it aims to reduce reliance on imports and substitute domestically 75% of wheat import.**

4) **National Bank of Ethiopia:** based on proclamation No. 377/2003, the National Bank of has specific import substitution responsibilities to promote the use of local financial services and products, encouraging local investment, and regulating foreign exchange transactions.

   As an on-going import substitution initiative, the NBE issued a directive in February 2021 restricting the import of 38 commodities to stabilize country's foreign exchange transactions and encourage local production of the listed commodities. By restricting the import of these commodities, the government is creating a market for local producers to fill the gap. This restrictive policy is intended to incentivize

[46] Ministry of Mines and Petroleum Proclamation No 1367/2020
[47] https://www.theeastafrican.co.ke/tea/business/ethiopia-to-cut-wheat-import-bill-with-new-initiative-1361180

local production, create jobs, and reduce the country's reliance on foreign goods for a short time. The hope is that by reducing imports and promoting local production, Ethiopia will reduce its trade deficit, increase its export capacity, and achieve sustainable economic growth.

5) **Ministry of Finance:** the specific import substitution responsibilities of MoF under proclamation No 280/2002 include designing policy interventions and promoting domestic industries, and regulation:

   I. **Developing and implementing policies to promote domestic industries**: MoF is responsible for developing and implementing policies that promote the growth and development of domestic industries. This involves providing financial and technical support to domestic industries, facilitating access to credit, and providing tax incentives.
   II. **Developing and implementing trade policies:** MoF is responsible for developing and implementing trade policies that promote import substitution. This involves negotiating trade agreements incognizant of the countries import-export trade balance.
   III. **Regulating imports and exports:** MoF is responsible for regulating imports and exports to ensure that they are consistent with import substitution objectives. This involves setting import tariffs and export taxes, regulating import licenses, and controlling the quality of imported goods.

Based on the rationale to implement inward industrialization policy, the ten principles of Rodrik's industrial policy design, the IMF's country learning, Ethiopia's import substitution regulatory view-points and on-going intervention**:**

"Import substitution for the manufacturing industry is defined as an instrument to promote and support competitive[48] goods and manufacturers replace imports using non-distortionary policies and performance based time-bound government intervention into the market"

Strategic goal: Achieve greater economic self-sufficiency in manufacturing and promote domestic manufacturing industries for sustainable job creation and manufacturing sector growth

Strategic principles: non-distortionary import substitution practice involves promoting domestic production and consumption of domestically produced goods without distorting the market, using time bound intervention by the government. The following are the key strategic principles:

I. **Competitive industries focused:** developing domestic industries that have the potential to compete with foreign goods on a level playing field without creating artificial barriers to entry or providing subsidies that distort the market for domestic manufacturers, rather than support and improve competitiveness.
II. **Time-bound government intervention:** provide time-bound and performance-based support for selected industries and enter the market as a manufacturer for those sectors with inefficient value-chains to enhance the competitiveness of the value chain:

[48] This strategy defines competitive products as any locally produced products that directly compete with complete or substantially similar imported products in the domestic market by demand, substitutability potential and market characteristics – list of competitive products for the selected sub-sectors are listed under annex to partially and gradually substitute their imported substitutable products.

III. **Open consumer choice:** any intervention steaming from this strategy or others to promote domestic manufacturing and import substitution shall not limit consumers choices rather it shall provide consumers with a wider range of choices, including both domestic and imported goods.

IV. **Stable macroeconomy**: IS strategy shall not create macroeconomic imbalances, such as inflation or balance of payments problems and should be implemented in synchrony with other economic policies, government monetary and fiscal policy, and trade policies.

V. **Non-extractive international trading**: IS strategy should not be used to promote isolationism or protectionism, instead, it should be implemented as part of a broader strategy that encourages international trade and cooperation, while also protecting the country from low-value and resource based extractive trading.

In line with the above, the import substitution strategy aims to improve competitiveness and promote innovation within the manufacturing industry by developing domestic industries without distorting the market. By promoting domestic production and consumption of domestically produced goods, the strategy seeks to create a conducive environment for innovation and technological advancement. It emphasizes the need to develop competitive industries that harness the country's resources and capabilities, leading to increased productivity and higher incomes. Overall, the strategy intends to harness competitiveness and innovation for further development and seeks to strengthen the manufacturing industry by increasing the market share of domestically produced goods and improving the productivity and competitiveness of the sector. Through a combination of targeted government support, market-oriented policies, and a focus on technological advancement, the strategy aims to achieve greater economic self-sufficiency, sustainable job creation, and long-term growth in the manufacturing sector.

3.5 Measuring Import Substitution

Measuring import substitution is a complex process that can use various approaches and requires different considerations. Numerous methods have been developed to assess the extent to which import substitution has taken place in an economy, industry, or specific commodity to measure the impact of import substitution policies and strategies alike. These methods can vary based on the desired results ranging from crude estimates to more nuanced analyses conducted at the macro or micro (product/industry) level. The specific methodology may vary depending on the country's context, policy objectives, and available data. Recognizing the multifaceted nature of import substitution, this section discusses different measurement perspectives, acknowledging that there is no one set way to determine the degree of import substitution by examining diverse approaches and identifies a way in which the substitution of priority products identified in this strategy can be measured.

Some common high-level approaches to measure import substitution include:

- **Import-to-Gross Domestic Product (GDP) Ratio**: This measure calculates the ratio of total imports to the country's GDP. A ratio declining over time indicates a reduction in import dependency and an increase in domestic production.
- **Trade Balance Analysis**: The trade balance analysis is a simple measure that assess the trade balance by comparing the value of total imports and total exports. A decreasing trade deficit or an increasing trade surplus suggests the country is reducing its reliance on imports[49].

[49] Balassa, Conceptual Framework and Measures of Import Substitution, 1971.

- **Import Penetration Rate**: This measure calculates the share of imports to the total market size which is a sum of total imports and domestic production where a declining import penetration rate represents a higher level of import substitution, as domestic production is replacing imported goods[50].
- **Import Substitution Index:** This index quantifies the degree of import substitution by comparing domestic production to the sum of domestic production and imports. If domestic production as a ratio of the sum of domestic production and import value has a higher percentage, there is high degree of import substitution, and vice versa[51].
- **Sector-specific Analysis**: Sector-specific analysis focuses on specific industries or sectors where import substitution is a priority. This measure analyses changes in total domestic production volumes, and value-added by domestic industries in those sectors. A higher level of domestic production and reduced reliance on imports signify successful import substitution.
- **Value-added (local content) Analysis**: This measure assesses the value-added contribution of domestic industries in the production of final goods. It compares the value added by domestic producers to the total value of imports. A higher value-added contribution indicates a higher level of import substitution.
- **Domestic Content Analysis**: This analysis evaluates the domestic content in exported goods. Higher domestic content suggests a reduction in imported inputs and an increase in domestic production.

The methodologies mentioned above for measuring import substitution are not exhaustive, as each formula lacks critical elements present in others, and vice versa. Furthermore, import substitution is an industrialization strategy that has regained attention only recently, making it challenging to find recent studies or established bodies of knowledge that scientifically discuss the measurement of import substitution. The purpose of this document is to present the various options available, without endorsing a specific approach to measuring import substitution. It is essential that any measurement employed in a national strategy is based on scientific research and experimentation, involving the collection of comprehensive data over an extended period. This will enable the development of appropriate measurement tools and formulas. Therefore, it is strongly recommended to conduct a comprehensive study to accurately measure the outcomes of this strategy, or any import substitution initiative, and assess its true impact.

[50] Ibid.
[51] Investopedia – (www.investopedia.com), 2023.

4 SECTION III

4.1 Competitive Sub-Sector and Commodity Identification

4.1.1 Strategic framework

The strategy is structured across five sub-sectors. Focusing on key product categories across the five sub-sectors is essential to the strategy; priority commodities have been identified across the food and beverage, textile and apparel, leather and leather products, chemical and construction inputs, and metal and engineering sub-sectors[52]. Based on the analytical framework, the prioritization was conducted considering: i) domestic demand of imported commodities trend, ii) domestic supply (production) of product categories to identify import dependency, iii) substitution potential in terms of quality of production (import standards) to assess whether locally produced goods can meet imported commodities' quality standards including input use as well as efficiency and iv) focus of government and regulatory barriers, ongoing government initiatives and policy priority including value chain development status. The approach is discussed under Section I.

Figure 11: General commodities list under the five manufacturing sub-sectors

Based on the commodity analysis framework, this section discusses the sub-sector brief overview, the competitive commodity analysis result and accordingly the list of prioritized commodities. Following a brief sub-sector scan, discussion of import and demand analysis quickly follows for each sub-sector including an overview of the manufacturing status. The second part of the discussion will illustrate import substitution potential where we discuss mainly domestic production capacity, raw material uses and cost efficiency in terms of production capacity utilization followed by a light discussion of technology utilization. Finally, the prioritized competitive commodities for import substitution are listed at the end of each sub-sector discussion using categorization.

In each sub-sector, high-potential product categories have been clustered into 3 categories based on their competitiveness. The 3 categories include:

1. **High –** quick wins: expanding on what Ethiopia already strongly produces, this category includes products that have high domestic demand, are currently being produced locally, but

[52] Note: The five-subsectors and the commodities in the subsequent pages were selected based on the mandate of the Ministry of Industry and its affiliate institution Manufacturing Industry Development Institute

have an opportunity to increase the domestic market share if firms utilize their production capacity. These category commodities are highly competitive because of these characteristics.

2. **Medium –** medium term wins**:** this category includes products with relatively limited production share currently but have high domestic demand and exhibit a strong capacity to be produced locally if value chains are strengthened.
3. **Low –** long term wins**:** this category includes commodities that are more complex and require higher levels of skills and technology, and stronger value chain development, than the products that are currently being widely produced, encouraging opportunities for downstream value chains, product diversification, and broader economic contributions, in the long-run.

In addition to utilizing existing demand for the prioritized product categories, the strategy aims to create new demand for domestically manufactured products. As the increasing domestic consumption alone may not be sufficient to sustainably support the growth of the manufacturing sector, the strategy seeks to explore opportunities for export markets and diversify the customer base. The strategy also takes into consideration the importance of creating and enhancing industry corridors to strategically allocate manufacturing activities based on resource availability to ensure adequate production to meet and surpass domestic demand. To effectively transition priority products that are close to satisfying domestic demand to exports, the strategy will employ a phased approach. Recognizing that certain product categories already have a high domestic demand and are currently locally produced; the strategy aims to capture a larger share of the domestic market and gradually transition towards export-oriented manufacturing by leveraging the existing production capacity and enhancing competitiveness. This approach allows Ethiopia to capitalize on its strengths and build upon its current production capabilities, strategically expanding its export base in a targeted manner. By focusing on product categories with high domestic demand and untapped export potential, the strategy aims to stimulate demand both domestically and internationally, thereby fostering growth in the manufacturing sector and contributing to Ethiopia's economic development in the long term.

Furthermore, the import substitution strategy takes into consideration the importance of creating and enhancing an enabling environment for manufacturing industries. From designing interventions based on the needs of specific products and product categories to tackling cross-sectoral issues in areas such as finance, infrastructure, inputs, etc., the strategy seeks to optimize production processes and maximize efficiency. This will be supported by collaboratively identifying targeted recommendations for sectoral and cross-cutting issues with the concerned bodies. In doing so, the strategy aims to foster synergies, promote collaboration, and create a conducive environment for manufacturing activities. This approach ensures that the strategy's interventions are aligned with the national and sectoral plans of implementing partners enabling efficient utilization and leveraging of Ethiopia's unique strengths in various regions of the country.

4.2 Manufacturing sector import and production trends

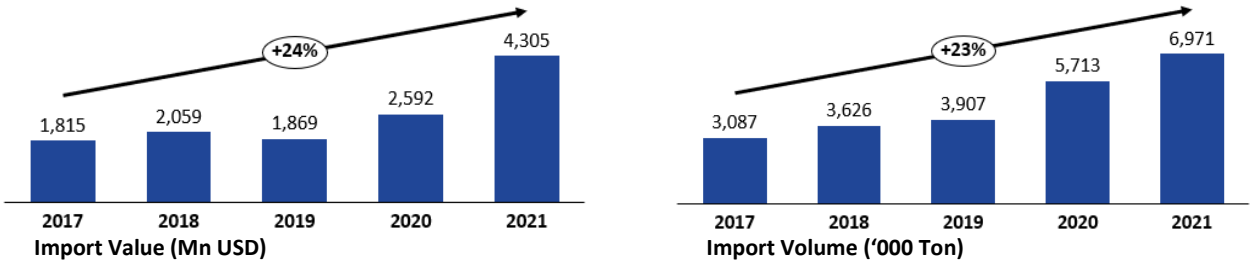
4.2.1 Food and beverage sub-sector

The food and beverage processing industry has the potential to drive agricultural productivity and rural economic transformation, but there are systemic agro-processing challenges in the value chains that require government support. The government of Ethiopia has initiated programs to address these challenges and promote agro-processing, export growth, and import substitution,

particularly in the food and beverage processing industry[53]. Despite being the third largest contributor to the industrial sector after leather and textile sub-sectors, production levels in the F&B are below demand, leading to increased food and beverage imports[54].

Import in the food and beverage sub-sector has grown at a cumulative annual growth rate (CAGR) of 24% from 2017 to 2021[55] due to the growing demand for processed products and limited local production capacity to satisfy the need. In 2021, edible oil, rice, and sugar are the dominant processed F&B products imported by Ethiopia among many other products ranging from fruit and vegetables to animal products which resulted in USD ~4.3 billion of imports, contributing to the depletion of an already-scarce foreign exchange reserve[56]. This presents a clear opportunity for import substitution to meet the ever-growing demand of the population.

Figure 12: Total import value (left) and volume (right) of food and beverage products, 2021[57]

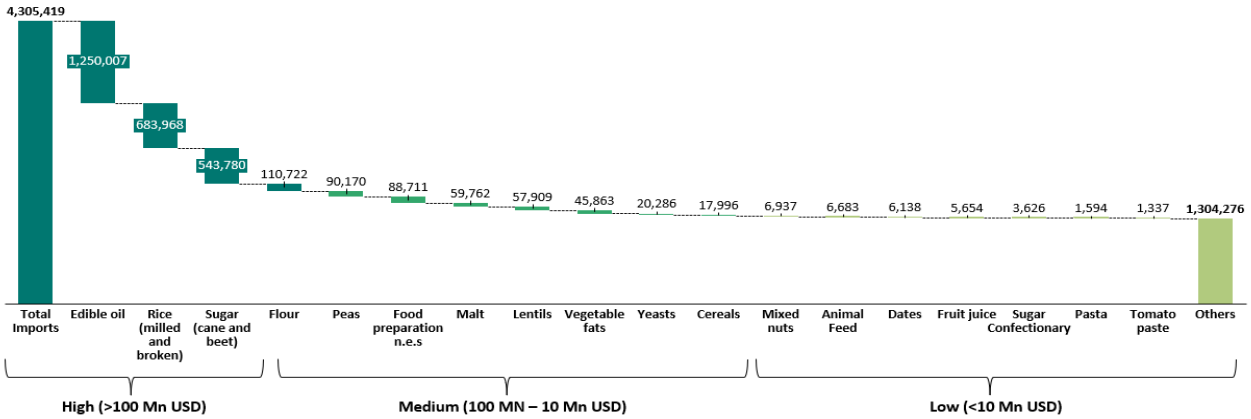


Although it may vary from year to year depending on factors such as global market conditions, trade policies, and local demand, looking at processed imported commodities, edible oil, rice, sugar, and flour have large domestic demand[58]. Malaysia, USA, and India are the main exporters of food and beverage products to Ethiopia with edible oil, wheat, and rice leading imported products[59]. Edible oil, mainly palm oil and sunflower oil, is the leading imported food item in Ethiopia as it is used for direct consumption. Similarly, Ethiopia's sugar demand per capita was estimated at 11 kg/capita in 2021/22, with a total consumption of 1.3 million tons while Ethiopia's 12 sugar enterprises have an annual total sugar production capacity of 450,000 tons[60]. Rice productivity is also low at a national average is only 2.96 metric tons per hectare necessitating imports to meet domestic demand. Malt barley and its by-products are also heavily imported, primarily for use in the growing local beer industry. Ethiopia also heavily relies on wheat imports to meet the demand for processed foods such as pasta, bread, and pastries as local production of wheat, especially durum wheat, which is mainly used to produce pasta, is insufficient. Local production of bread wheat is also low necessitating millers to import to fulfill their demand[61]. However, the government is working to promote sustainable agriculture development and

[53] Jobs Creation Commission, Plan of Action for Job Creation (2020 – 2025), 2019.
[54] Ibid.
[55] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[56] Ibid.
[57] Ibid.
[58] Ibid.
[59] The Observatory of Economic Complexity (OEC), (www.oec.world), MoI Analysis, 2022.
[60] Ernst and Young, Sugar Enterprises: Investment Teaser, 2022.
[61] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.

achieve food sovereignty. As a result, there is a need to develop short-term and long-term initiatives focused on specific products.

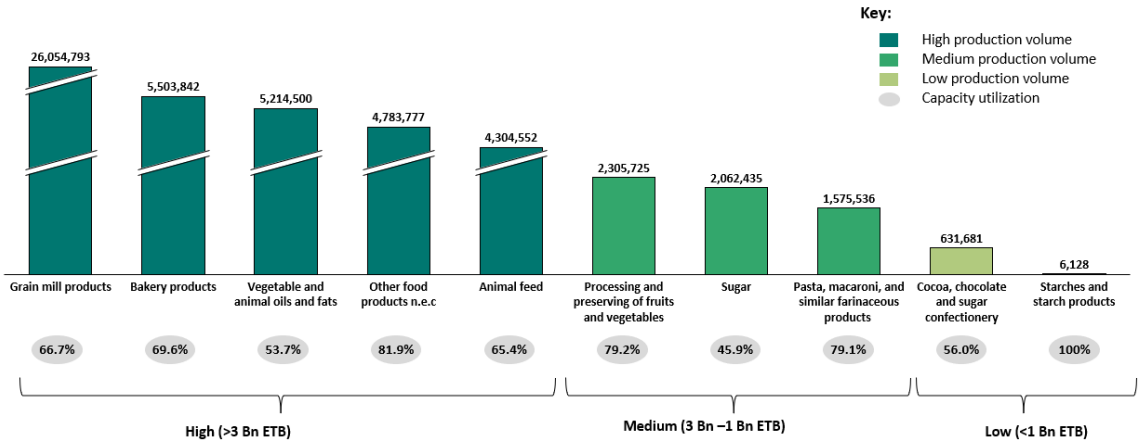
Figure 13: Import data of top processed food and beverage commodities ('000 USD, 2021)[62]



Ethiopia's F&B sub-sector includes the production of grain products, bakery and confectionary, other foods products, frozen, canned, and dried food, syrup, seasoning, oils, general food, animal food, the production of alcoholic and non-alcoholic beverages[63]. Manufacturing of grain mill products is the highest contributor to the gross value of production at 45% followed by bakery products and other food products at 10% and 9% respectively[64]. Overall, the sub-sector has shown an increasing production trend, especially in grain milling, malt, and the manufacture of oils. Looking at the beverage sub-sector, the production of malt liquors and malt including non-alcoholic beer, and the manufacture of soft drinks, mineral waters, and bottled waters are the highest contributors at 93% combined[65]. The volume and value of imports in the beverages sub-sector are very low, at only 0.5% of total food and beverage imports[66], due to current production levels for most products fulfilling the local demand. Therefore, there is a limited value to be gained from substituting imports in the beverage sub-sector; however, due to high untapped potential, local production of fruit juice is considered.

Figure 14: Production data of top processed food commodities ('000 ETB 2019/2020)[67]

[62] Ibid.
[63] Note: dairy, meat, poultry and seafood, and tobacco have not been considered in the study as they are outside the mandate of MoI and MIDI
[64] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[65] Ibid.
[66] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis.
[67] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.



Due to the growing number of agro-processing industries, the F&B sector's import intensity ratio has also increased steadily as a result of the growing demand for raw materials. In 2020, there are over 1,100 agro-processing establishments in Ethiopia[68]. The government has also been supporting the growth of the industry through the integrated agro-industrial parks[69]. As a result, the imported share of raw materials in the sub-sector has increased from 22% in 2001-02 to 30% in 2019-20[70].

Figure 15: Total number of manufacturing establishments in the F&B industry (2019/2020)[71]

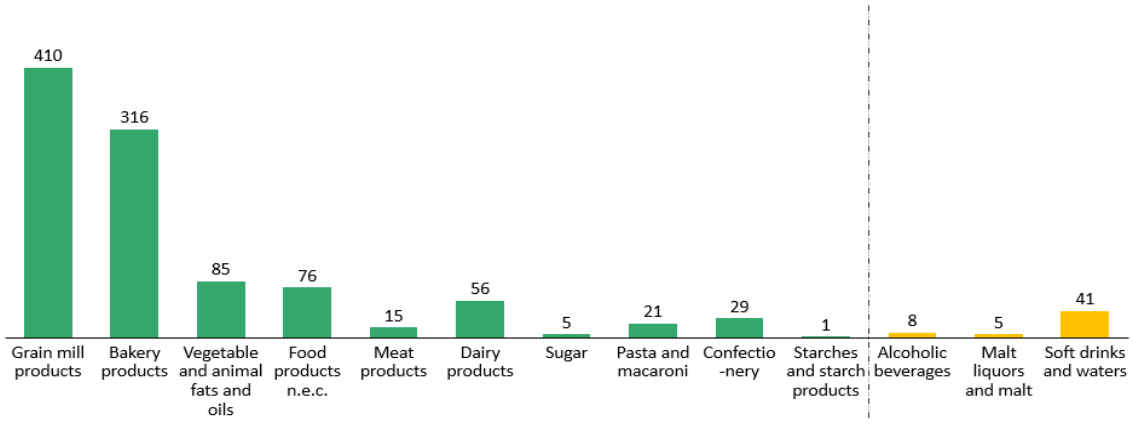
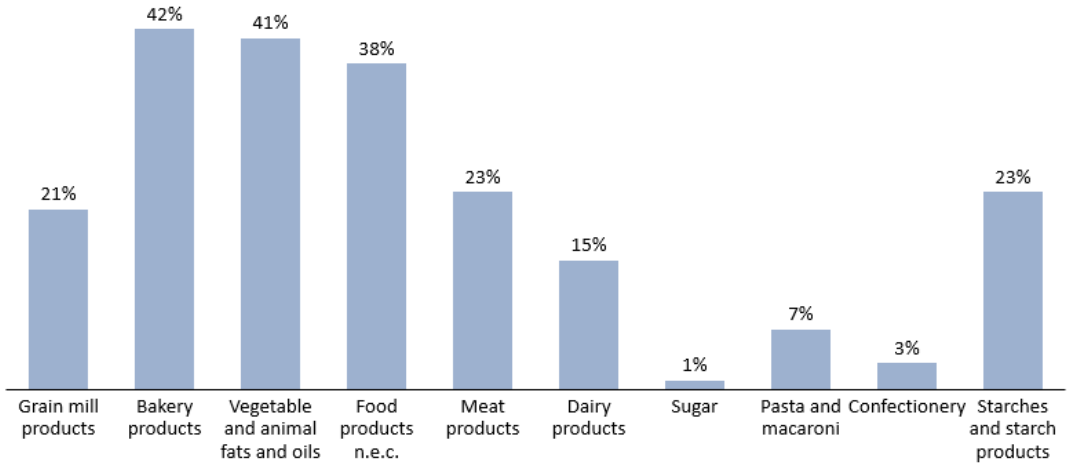


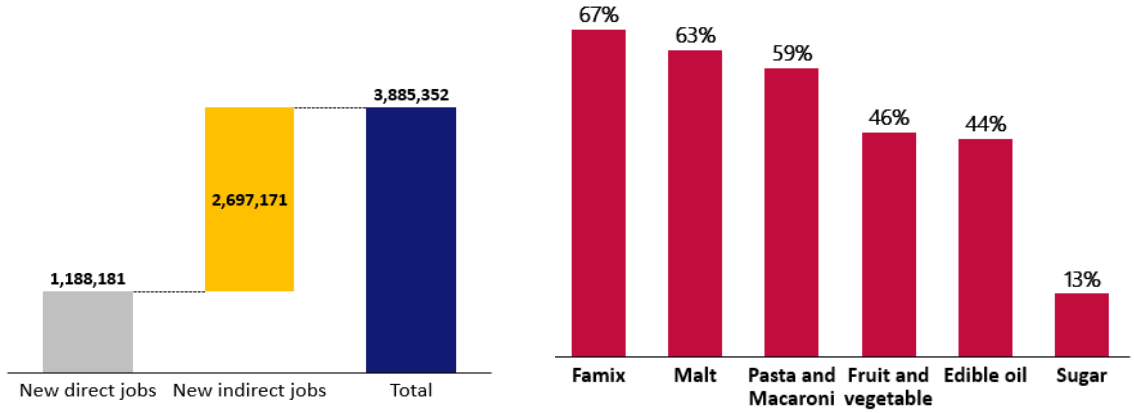
Figure 16: Ratio of imported goods to the total raw material cost of agro-processing establishments (in %, 2019/2020)[72]

[68] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[69] UNIDO, Industrial Park Development in Ethiopia Case Study Report, 2018.
[70] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[71] Ibid.
[72] Ibid.



However, due to the growth of F&B industries, the sub-sector including both alcoholic and non-alcoholic products contribute to 35% of employment in the industry sector, yet, the production capacity utilization of manufacturers remains significantly low. The employment forecast for the F&B sub-sector is predicted to grow by 86% by 2025, with potential job growth of up to 400,000 new jobs in the integrated agro-industrial parks alone[73]. Even though value of domestic production of food products and employment in the sub-sector has grown significantly, production capacity utilization is very low for most commodities[74]. Existing producers are not operating at full capacity, with sampled manufacturers reporting an average of 49% capacity utilization[75].

Figure 17: Job creation potential of the F&B sector (2025) and production capacity utilization (2021)[76]

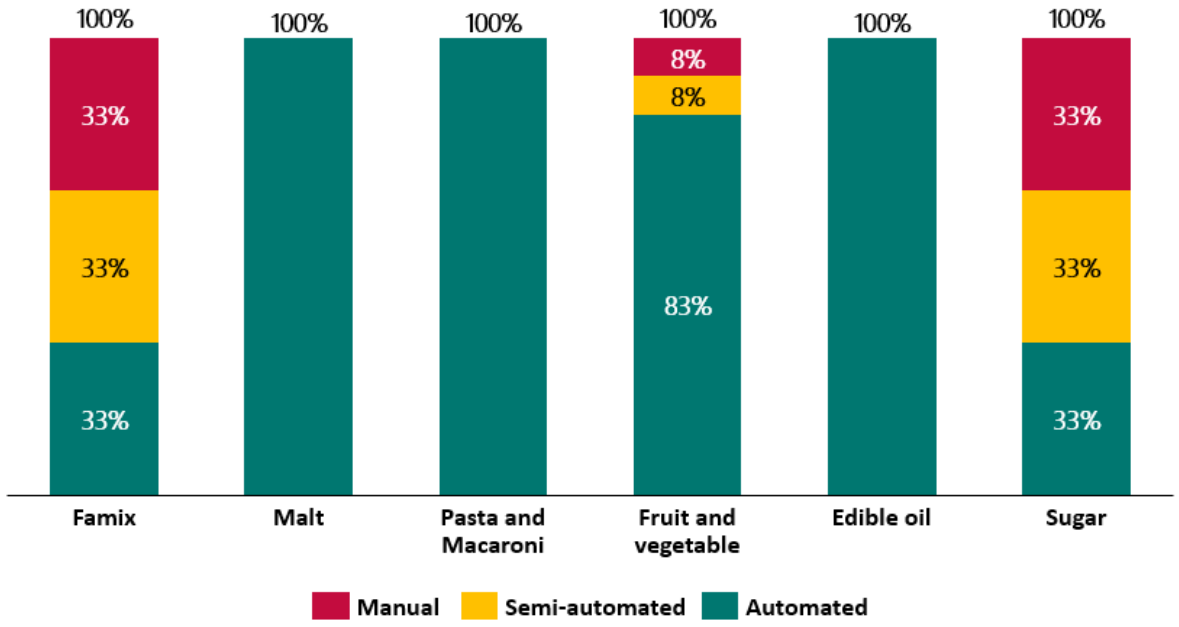


The use of technology in agro processing in Ethiopia is gradually increasing, especially in medium and large-scale manufacturers, but there is still a lot of room for improvement. Nonetheless, limited access to financing, insufficient infrastructure, and inadequate skilled labor are still obstacles to the implementation of technology in agro-processing in Ethiopia. Additionally, many small-scale

[73] Ibid.
[74] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[75] The MoI has conducted a survey of 50 manufacturers engaged in the production of sugar, edible oil, processed fruits and vegetables, pasta and macaroni, enriched foods, and malt across different parameters of which the average production capacity utilization was 49%
[76] MoI, Manufacturer Sample Survey Results, 2022

processors may not have the knowledge or resources to invest in technology and may be more reliant on traditional processing methods. Despite these challenges, technology remains a promising area for the growth and advancement of Ethiopia's agro-processing industry. Looking at the technology composition of sampled manufacturers, although automation is not an absolute measure of technological adoption, a significant proportion have fully automated production systems, especially in the malt, pasta, and edible oil sub-sectors implementing 100% automated technologies. The other sectors, fruit and vegetable manufacturers are also near complete automation while sugar and famix processors have a blend of all systems of production[77].

Figure 18: Technology utilization in the food and beverage sub-sector (2021)[78]



Although the local supply falls short of the growing demand of the food and beverage sector, Ethiopia has favourable conditions for agricultural production, including suitable climate and soil conditions. There are opportunities to expand the cultivation of crops and other raw materials and reduce the country's import dependence. The Ethiopian government has implemented policies and incentives such as tax exemptions, duty-free imports of machinery and raw materials, and access to financing to attract investment in the sector. These measures have already attracted investment from international companies. The food and beverage sector in Ethiopia also has a competitive advantage in low labor cost, duty-free imports, and tax exemptions. However, to fully realize the potential of the food and beverage sector, it will require continued investment in domestic production, innovation, and infrastructure. Reducing the trade deficit and substituting imports with domestic production will not only increase the country's competitiveness but also contribute to job creation, poverty reduction, and sustainable economic growth.

The sub-sector offers multiple product categories at HS4 level that have the potential for import substitution. The table below presents these products and product categories prioritized based on

[77] Ibid.
[78] Ibid.

the framework and analysis methodology discussed. The potential implementation timeline and rationale for prioritization for all products is also included in Annex I.

Table 8: High-potential manufacturing product categories for import substitution in the food and beverage sub-sector

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
Malt	High	High	◕	◕	●
Pasta and Macaroni	High	High	●	●	●
Sugar, confectionary	High	High	◔	◕	●
Edible oil	High	Medium	◔	◑	●
Fruit Juice, mango pulp, mango concentrate	Medium	High	◑	◑	◕
Food preparations*	Medium	High	◕	◔	◕
Corn flour, flakes, starch, and snacks	High	High	◕	◕	◕
Bakery products, biscuits, cookies	Medium	High	◕	◕	◕
Wheat or meslin flour	High	High	◕	◑	●
Animal feed	High	High	◕	◕	◔
Enriched foods (CSB+, CSB++, famix)	High	High	◕	◕	◕

Eleven food and beverage products have been prioritized based on their competitiveness to substitute imports. The Ethiopian market has potential for investors in various sectors including malt, pasta, sugar, edible oil, mango, food preparations, maize, bakery products, flour, animal feed and enriched foods. The production of malt, pasta, and edible oil is well-established with advanced processing factories, skilled labor, and raw materials availability. Sugar has high government support, but the main challenge is long sugarcane yield periods and obsolete machinery. Mango processing is also a competitive area, but it takes a long time from variety selection to maturity. Flour production is well-adopted by farmers with great climatic conditions and high demand, but the main challenge is seasonal production and wheat shortage. There is also a potential to increase animal feed production from milling and edible oil by-products. Finally, the production of enriched foods has a high demand due to mandatory national food fortification policies.

The food preparations market is not saturated and presents opportunities for new investors in processing yeast, baking powder, instant yeast, leavening agent, and bicarbonate. The maize processing market for maize flour, starch, cornflakes, etc. is also not saturated, presenting opportunities for new investors. The bakery products market has several manufacturers with skills and technology, but processors are operating below capacity due to insufficient quantities of raw materials. Overall, the Ethiopian market has the potential for investors to tap into the food and beverage sub-sector with a growing demand for food and strong job creation potential.

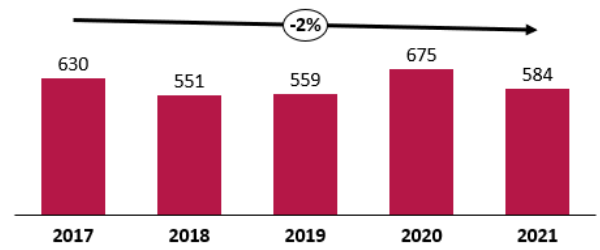
4.2.2 Textile and apparel sub-sector

The modernization of the Ethiopian textile industry started with the establishment of the first integrated mill factory, Dire Dawa Textile Factory, in 1939 and the second textile factory, Addis Garment PLC, established in 1958. There were only 19 textile and garment factories in Ethiopia until the command economic system of the county ended in 1991[79]. In recent years, the textile and apparel industry in Ethiopia has grown rapidly mainly due to exports and it is now distinguished by sustainable value addition along the entire value chain. In addition to Ethiopia's comparative advantages, which include its low labor costs, affordable electricity, preferential market access, and relative proximity to significant markets, the business climate has undergone changes that have lowered trade barriers[80].

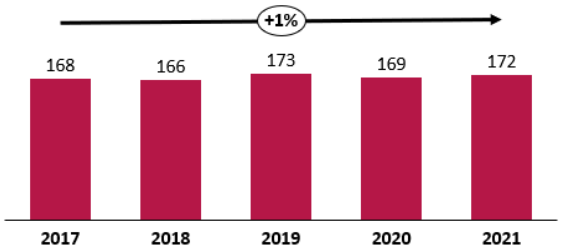
Ethiopia also has a growing textile and apparel manufacturing sector, with over 340 medium and large-scale companies operating in the industry[81]. The country's production of textile and apparel products has been increasing in recent years, with a focus on exporting to international markets. In 2021, Ethiopia's exports of textile and apparel products totalled over $165 million[82]. Spurred by government incentives for investors, the sector has drawn a sizable amount of funding from abroad with FDI growing by 4.4% in 2018 alone which has facilitated significant export growth during the past few years, mostly as a result of the influx of foreign investment[83]. Even though these initiatives geared towards sectoral development and export, Ethiopia is still a net importer of textile products.

Due to the growing number of industries the volume of textile and apparel commodity imports has stagnated over the last five years growing at only a 1% cumulative annual growth rate (CAGR) from 2017 to 2021[84], however, the value of imports is still considerably high. Fabrics and textile materials, apparel, and cotton are the main textile and apparel products imported to Ethiopia which has resulted in USD ~580 million of imports[85]. The import of fabrics is particularly high because manufacturers, especially stand-alone garment companies, import synthetic and different quality cotton fabric from a variety of countries such as China, India, Pakistan, Turkey, and Thailand[86] [87].

Figure 19: Total import value (left) and volume (right) of textile and apparel products[88]



Import Value (Mn USD)

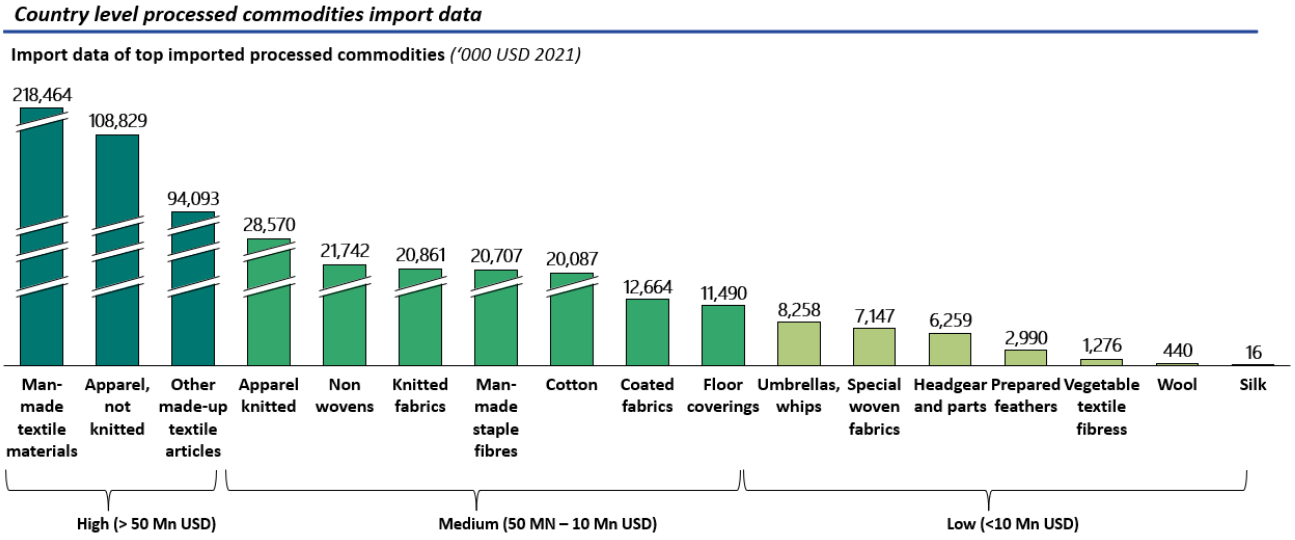


Import Volume ('000 Ton)

[79] United Nations Conference on Trade and Development, Ethiopia: Science, Technology, & Innovation Policy Review, 2020.
[80] MoTI, Ethiopia Textile and Clothing Value Chain Roadmap (2016-2020), 2015.
[81] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[82] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[83] Jobs Creation Commission, Plan of Action for Job Creation (2020 – 2025), 2019.
[84] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[85] Ibid.
[86] MoTI, Ethiopia Textile and Clothing Value Chain Roadmap (2016-2020), 2015.
[87] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[88] Ibid.

The textile and apparel sectors have not increased their share in manufacturing exports, although, at the same time, they have increased their import intensity[89]. 89% of textile products and 97% of apparel items were sold to the domestic market in 2016/2017, respectively, while just 15% of textile products and 3% of apparel products were exported[90]. Yet, the nation is still a net importer of apparel goods. In order to keep up with the boom in local demand, imports have substantially expanded in recent years[91]. While 75% of the negative trade balance in the apparel sub-sector is due to a limited number of products, which include menswear, T-shirts, womenswear, and technical wear, the majority of the textiles trade deficit is due to imports of man-made filaments and home textiles[92].

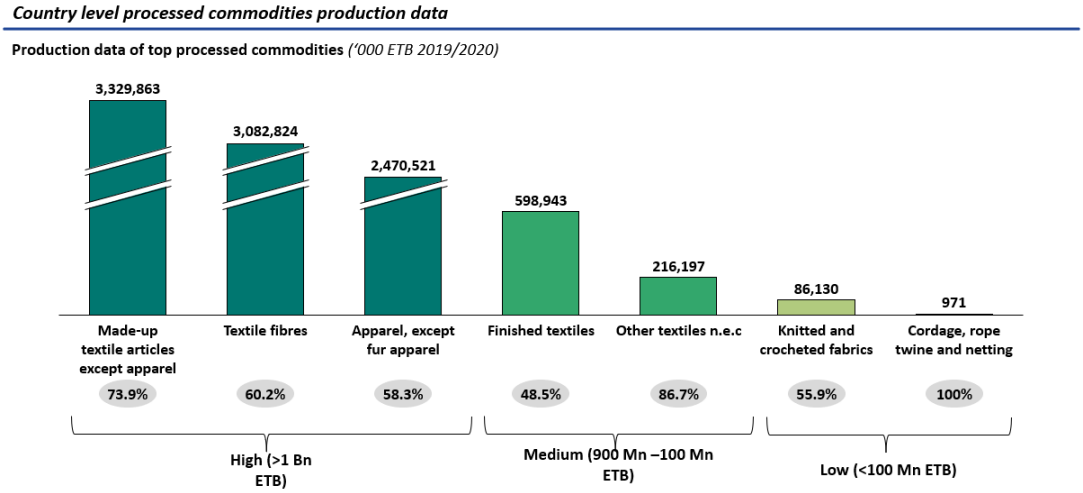
Figure 20: Import data of top textile and apparel commodities ('000 USD, 2021)[93]



Looking at production, Ethiopia has an integrated textile and apparel supply chain that includes spinning, weaving, knitting, dyeing, and finishing[94]. Ethiopian manufacturers are active participants in almost every stage of the value chain. As a result, there is an industrial foundation for growth and value addition[95]. Manufacture of textile articles, spinning of fibres, and manufacture of apparel have the highest contribution to the gross value of production at 34%, 33%, and 24% respectively[96]. However, the domestic market competition has become very tense due to the penetration of low-priced imported textiles and clothing in Ethiopia[97]. While some firms are providing high-quality items for markets that have high demands, the growth of such products necessitates the expansion of trailing enterprises' technological capabilities and skill sets to compete domestically and globally.

[89] United Nations Conference on Trade and Development, Ethiopia: Science, Technology, & Innovation Policy Review, 2020.
[90] Ibid.
[91] MoTI, Ethiopia Textile and Clothing Value Chain Roadmap (2016-2020), 2015.
[92] Ibid.
[93] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[94] MoTI, Ethiopian Industrial Development Strategic Plan (2013- 2025), 2013.
[95] MoTI, Ethiopia Textile and Clothing Value Chain Roadmap (2016-2020), 2015.
[96] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[97] MoTI, Ethiopian Industrial Development Strategic Plan (2013- 2025), 2013.

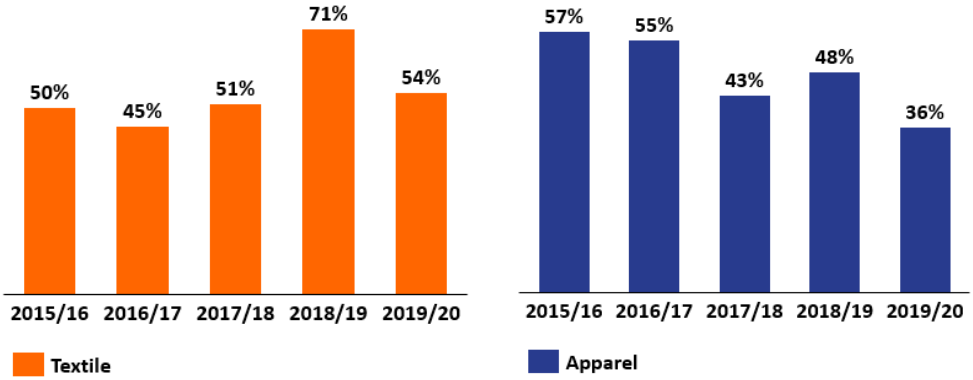
Figure 21: Production data or top processed textile and apparel commodities ("000 ETB 2019/2020)[98]



The number of textile and apparel industries have grown over the past years increasing the need for inputs and thereby the ratio of imported raw materials to total consumed raw material costs for textile production stands at 54% in 2020[99]. In 2019/20, there are 347 medium and large-scale textile and apparel manufacturing industries in Ethiopia that engage in spinning of fibres, finishing of textiles, manufacture of made-up articles of textiles, fabrics, and wearing apparel[100]. To adequately supply these industries, although Ethiopia has indigenous raw cotton and the potential to produce other natural fibres such as hemp, ramie, flax, linen, silk, and bamboo, the country entirely depends on imports of other textile raw materials such as synthetic fibre/yarn, wool, and related accessories[101]. Local cotton is used by the few integrated textile mills while the majority of stand-alone garment companies rely on imported fabrics[102]. Dyes and chemicals that form the backbone of the operations are also imported from Japan, China, India, Pakistan, Switzerland, Turkey, Germany, and Italy[103]. With growth in the sector and increased production, trade deficit is a mounting problem, and the import dependence poses a risk to the sector's growth and sustainability.

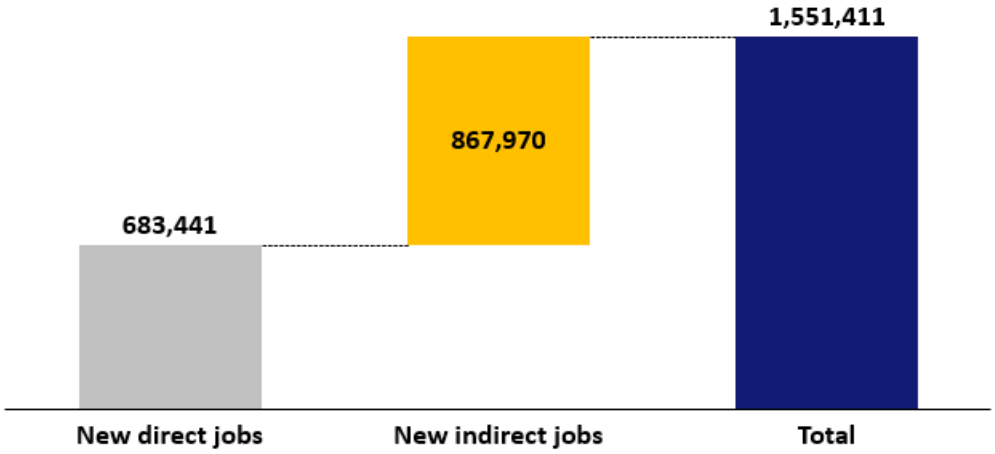
Figure 22: Ratio of imported goods to the total raw material cost of textile and apparel establishments (in %, 2019/2020)[104]

[98] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[99] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[100] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[101] MoTI, Ethiopian Industrial Development Strategic Plan (2013- 2025), 2013.
[102] EIC, MoTI, ETIDI, Realizing New Productive Capacity in Ethiopia's Textiles and Apparel Sector: Strategy and Policy Recommendations, 2018.
[103] Ethiopian Textile Industry Development Institute, An abstract to Ethiopia's textile chemical processing/ finishing industry, 2012.
[104] Ibid.



With the growth of the T&A sub-sector and the number of firms operating in the industry, its contribution to employment has also increased. Employment in the textiles and apparel industry was estimated at 798,752 in 2018 and is forecast to grow by 86% through 2025, creating more than 683,000 new direct jobs and nearly 868,000 indirect jobs[105]. Locally-owned private firms—mostly medium in size—dominate the sector and account for 51% of employment[106].

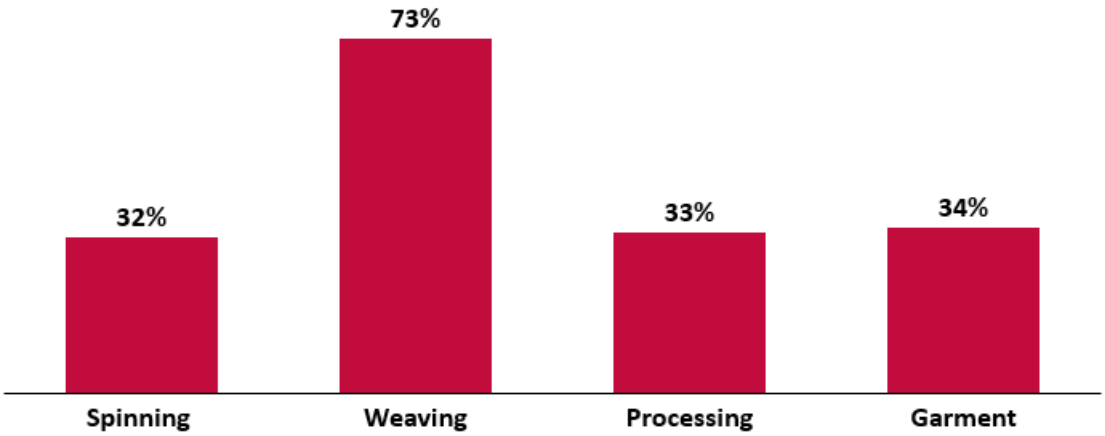
Figure 23: Job creation potential of the T&A sector (2025)[107]



Although the value of domestic textile production has increased over the past few years, the majority of the commodities in the subsector remain under poor production capacity utilization[108]. In the manufacturing industry, capacity utilization is typically 50%. According to the survey data from 24 factories producing textile and apparel goods at various stages of the value chain, the average capacity utilization is 43%[109].

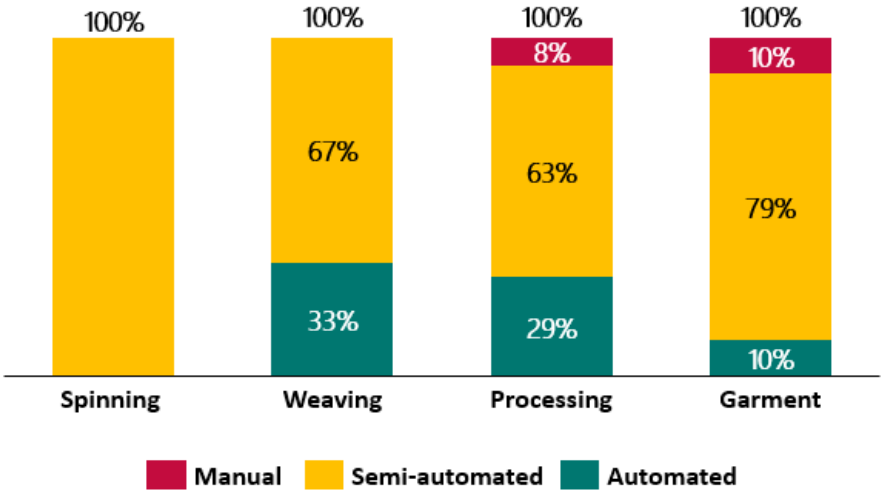
[105] Jobs Creation Commission, Plan of Action for Job Creation (2020 – 2025), 2019.
[106] Ibid.
[107] Ibid.
[108] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[109] The MoI has conducted a survey of 24 manufacturers engaged in spinning, weaving, fabric, and garment production across different parameters of which the average production capacity utilization was 43%

Figure 24: Capacity utilization in the textile and apparel sub-sector, 2021 (%)[110]



The textile and apparel sector in Ethiopia has been rapidly growing in recent years, and there has been an increasing adoption of technology to improve the sector's productivity and efficiency. For instance, many medium and large-scale textile and apparel manufacturers in Ethiopia are using computer-aided design software to create and modify designs for their products. This technology has helped to improve the accuracy and speed of design creation, and it has also made it easier to share designs with clients and partners. Similarly, instead of using traditional methods of cutting fabric, many textile and apparel manufacturers in Ethiopia are also using automated cutting machines. These machines use computer-controlled blades to cut fabric quickly and accurately, which can improve productivity and reduce waste. However, a good proportion of manufacturers, especially those in the small to medium scale range also apply semi-automated and manual technologies during their production. Examining the technology profile of the selected manufacturers, a considerable percentage of them have adopted semi-automated production systems, with fully automated production as a close second[111].

Figure 25: Technology utilization in the textile and apparel sub-sector (2021)[112]



[110] MoI, Manufacturer Sample Survey Results, 2022
[111] Ibid.
[112] Ibid.

As can be seen, local supply significantly falls short of the growing demand of the T&A sector leading to trade deficit[113]; nevertheless, there is potential for Ethiopia to increase its domestic production of textile and apparel products and reduce its import dependence. The country has favourable conditions for cotton production, including suitable climate and soil conditions, and there are opportunities to expand the cultivation of cotton and other raw materials. In addition, the Ethiopian government has implemented policies and incentives such as tax exemptions, duty-free imports of machinery and raw materials, and access to financing to attract investment in the textile and apparel sector[114]. These measures have already attracted investment from international companies, including PVH and H&M, which are major sourcing companies of manufactured textile and garment products in Ethiopia[115]. However, it will require continued investment in domestic production, innovation, and infrastructure to fully realize this potential, substitute imports, and bridge the trade gap.

The sub-sector offers multiple product categories at HS4 level that have the potential for import substitution. The table below presents these products and product categories. The potential implementation timeline and rationale for prioritization for all products is also included in Annex I.

Table 9: High-potential manufacturing product categories for import substitution in the textile and apparel sub-sector

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
Trousers, overalls, shorts	High	High	◑	◑	◑
Men's/boys' underwear	High	High	◑	◑	◑
Babies' garments	High	Medium	◑	◑	◑
T-shirts, singlets, tank tops	High	High	◑	◑	◑
Stockings and socks	High	Medium	◑	◑	◑
Nightdresses, pajamas	High	Low	◑	◑	◑
Suit jackets, blazers	High	Low	◑	◑	◑
Men's/boys' shirts	High	High	◑	◑	◑
Scarves and shawls	Medium	Low	◑	◑	◑
Garments made from non-wovens	High	Low	◑	◑	◑
Artificial filament tow	High	Low	◔	◔	◔
Fibres of polyester	High	Low	◔	◔	◔
Cotton waste	High	High	◑	◑	◑
Artificial acetate filament tow	Medium	Low	◔	◔	◔
Cotton, neither carded nor combed	High	High	◔	◑	◑
Filament yarn of polyester	High	Low	◔	◔	◔
Yarn made of acrylic	High	Low	◔	◔	◔

[113] EIC, MoTI, ETIDI, Realizing New Productive Capacity in Ethiopia's Textiles and Apparel Sector: Strategy and Policy Recommendations, 2018.
[114] Ibid.
[115] Ibid.

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
High-tenacity filament yarn of polyester	High	Low	◔	◔	◔
Sewing thread of synthetic filaments	High	Low	◔	◔	◔
Woven fabrics	High	Low	◔	◔	◔
Knitted, crocheted, piled fabrics	High	Medium	◑	◑	◑
Dyed, knitted, crocheted synthetic fabrics	High	Medium	◑	◑	◑
Nonwovens made from man-made fibres	High	Low	◔	◔	◔
Carpets	Medium	Medium	◑	◑	◑
PVC-coated textile fabrics	Medium	Medium	◑	◑	◑
Tyre cord fabrics	Medium	Medium	◑	◑	◑
Narrow woven fabrics	High	Medium	◑	◑	◑
Open light-weight fabrics	High	Medium	◑	◑	◑
Technical textiles	High	Low	◔	◔	◔
Sports t-shirts, pullovers	High	Medium	◑	◑	◑
Sports trousers and jacket set	High	Low	◕	◕	◑
Jacket-like garments	High	Low	◑	◑	◑
Dress made of synthetic materials	High	Low	◑	◕	◑

Thirty-four textile and apparel products have been prioritized based on their competitiveness to substitute imports and their importance to long-term sector development. The prioritized products in the textile and apparel sub-sector can broadly be divided into two groups. The first group includes products such as trousers, overalls, shorts, men's underwear, babies' garments, t-shirts, singlets, tank tops, stockings, and socks. Although raw materials are somewhat available, the main challenges are limited production size and product mixes compared to the huge demand. Manufacturers have good experience in producing these items, but they are operating below capacity. The second group includes products such as synthetic fibres that are not competitive now but are important for sectoral growth in the long term. These products include filament tow, fibres of polyester, artificial acetate filament tow, filament yarn of polyester, yarn made of acrylic, high tenacity filament yarn of polyester, and sewing thread of filament yarn. Although it may not be an immediate priority to substitute these products in the short-term, synthetic textile substitution is critical to remain competitive and to substitute multiple textile products.

Other products which have been prioritized include night dresses, pyjamas, suit jackets, blazers, men's shirts, scarves, and shawls. Although garment processors have good experience in sewing these apparels, most of the factories are CMT (Cut, Make, Trim) factories due to a lack of fabrics to expand operation. While some of these products can be substituted in the short term, others will require extra skills and technology, and their substitution may not be achieved in the short-term. However, as they

are inputs or accessories to other sectors, they have significant potential to save costs and support other value chains in the long-term.

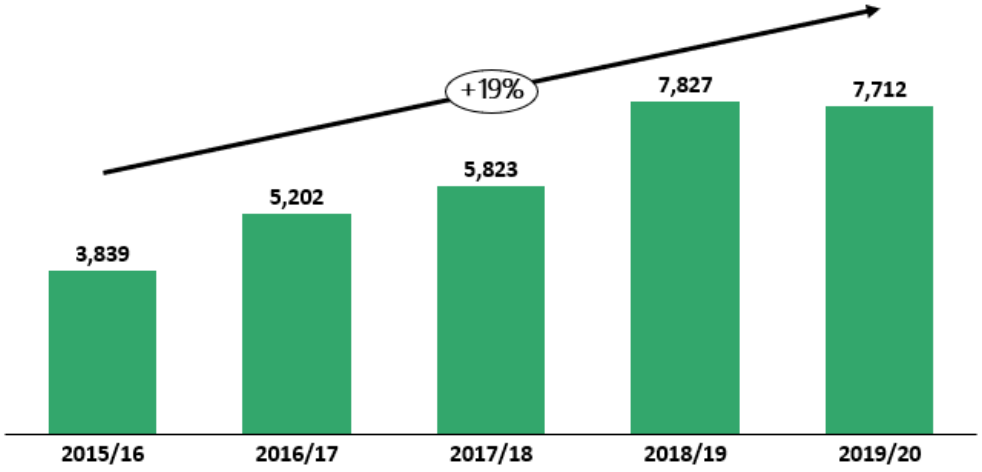
4.2.3 Leather and leather products sub-sector

Ethiopia's leather and leather products sub-sector has been identified as a priority area for development in the country, with the government actively promoting and supporting its growth. The sector has been identified as a potential driver of economic growth, value addition, job creation, and export earnings[116]. This is because Ethiopia has the largest population of livestock in Africa and ranks eighth globally. Due to the abundance of livestock resources, the leather industry has the potential to be one of the world's top producers and exporters of hides and skin, leather, and leather products[117]. Ethiopia also has a large and competitively priced trainable workforce that is attractive for investment across several sectors[118].

The leather and leather products sub-sector has shown significant production growth in recent years; yet, exports show a slight decline. Currently, there are 32 tanneries, over 200 footwear manufacturers, and over 100 leather product manufacturers actively engaged in Ethiopia[119]. The gross value of production for the sector has also increased at 19% CAGR from 2015/16 – 2019/20[120]. However, according to data from the National Bank of Ethiopia, the leather sector accounted for only 1% of Ethiopia's total export earnings in the 2010/2021 fiscal year. This represents a 49.4% decrease from the previous year where exports accounted for 2.4% and a 77% from the year before where leather exports were 4.4% of total exports[121].

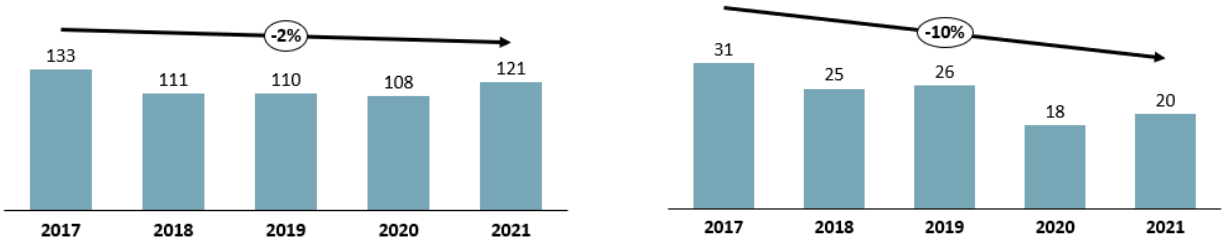
[116] MoI, Ethiopia Leather Value Chain Strategy (2016 – 2020), 2016.
[117] MInT, A Preliminary Assessment on Technology Utilization of Ethiopian Selected Manufacturing Industries, 2019.
[118] MoI, Ethiopia Leather Value Chain Strategy (2016 – 2020), 2016.
[119] LLPIRDC, Study of the challenges of the Leather Industry, 2022.
[120] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[121] NBE, Annual Report 2020/21, 2021

Figure 26: Gross value of production of leather and leather products (Mn ETB, 2015/16 – 2019/20)[122]



Import of leather commodities has fluctuated over the past five years, showing a compounded decline. From 2017 to 2021, value of imports in the leather sub-sector shows a 2% drop. Yet, attributing to the fluctuating demand for leather product imports, the value of imported goods from 2020 to 2021 has increased by 12% with a spending of USD 121 million[123]. The main drivers of imports for the sub-sector are footwear made with plastic components and accessories and parts of footwear from China and Thailand as the domestic production of these products is very limited[124].

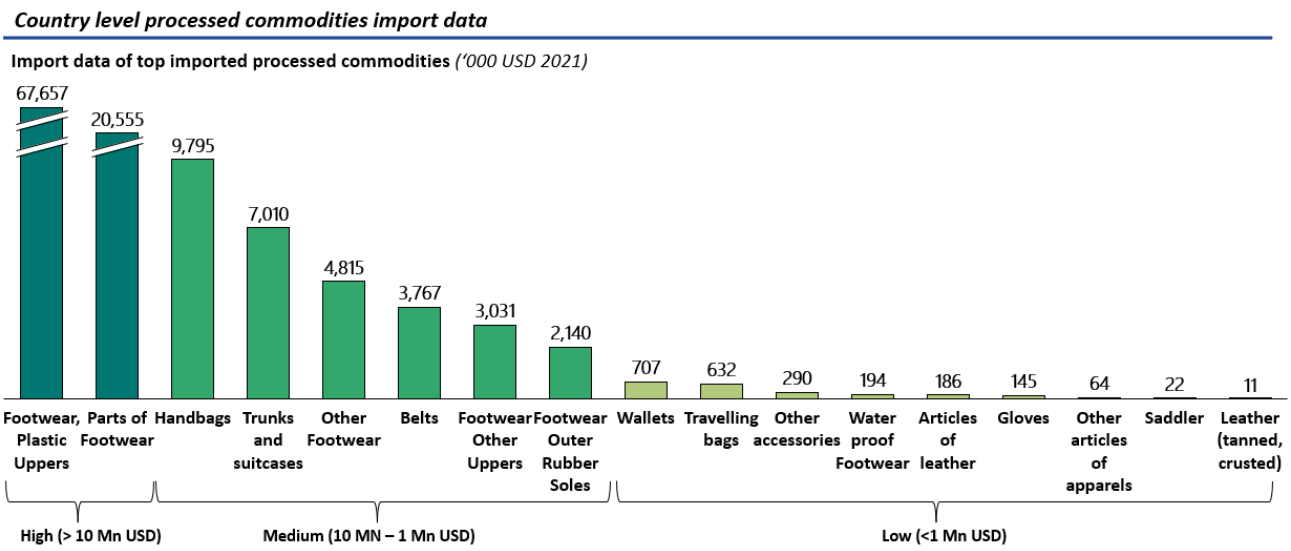
Figure 27: Total import value (left) and volume (right) of food and beverage products[125]



Import Value (Mn USD) **Import Volume ('000 Ton)**

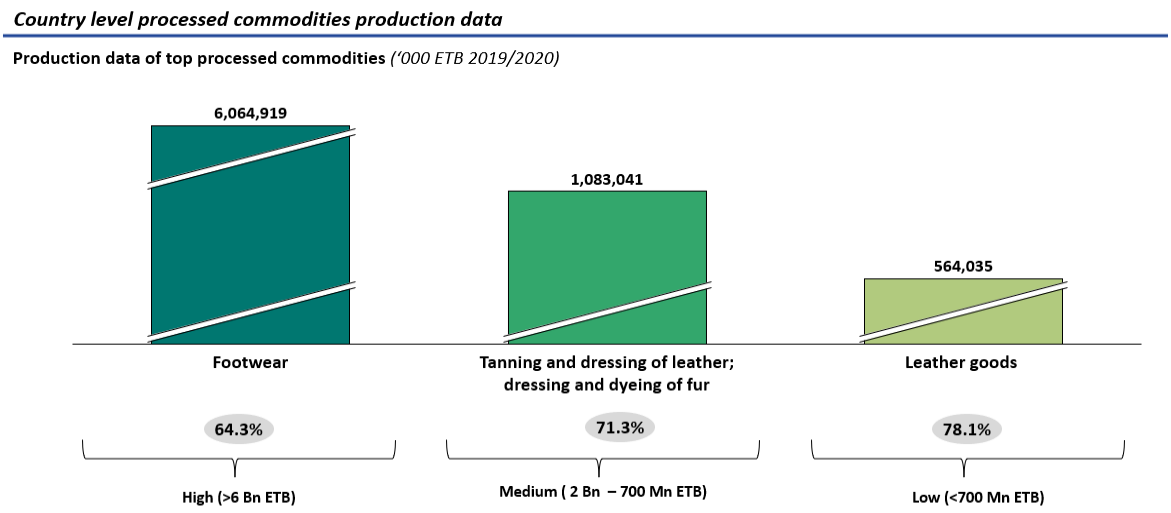
Figure 28: Import data of top leather and leather product commodities ('000 USD, 2021)[126]

[122] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[123] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[124] The Observatory of Economic Complexity (OEC), (www.oec.world), MoI Analysis, 2022.
[125] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[126] Ibid.



Ethiopia has an abundance of livestock which provides a comparative and competitive advantage in the leather and leather products value chain. In 2021, Ethiopia had 65 million cattle, 47 million goats, and 38 million sheep[127]. Given the ample supply of raw materials, the leather industry as a whole has the potential to increase its market share domestically and globally as well as establish itself as a top supplier of finished leather products such as footwear, apparel, and accessories. Yet, the production of leather and leather products often fails to meet local demand mainly due to limited production of non-leather goods and capacity utilization issues.

Figure 29: Production data of top processed leather and leather products ('000 ETB 2019/2020)[128]



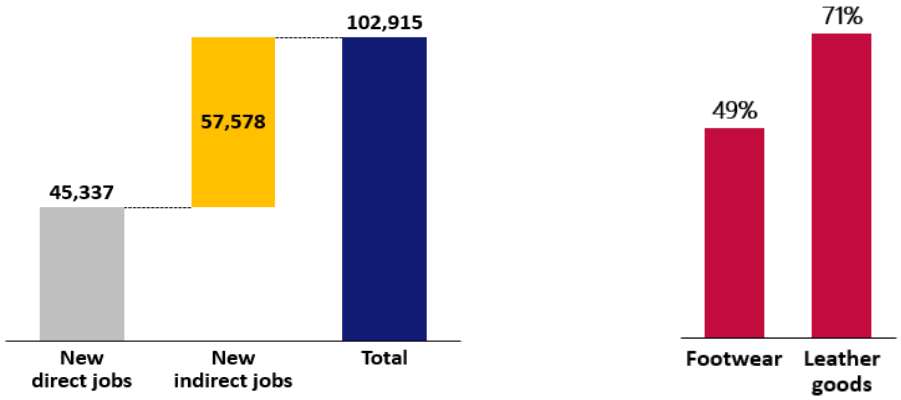
Ethiopia's significant production of leather and leather products is underdeveloped, the county imports a significant amount of leather inputs. Most of the chemicals that are used in tanning are imported, and they contribute approximately 43% to the total cost of production of finished leather[129].

[127] FAOSTAT, Crops and livestock products data, 2022.
[128] Central Statistics Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[129] MoI, Ethiopia Leather Value Chain Strategy (2016 – 2020), 2016.

There is also significant import dependence on imported accessories and other intermediate inputs[130]. Consequently, the ratio of imported raw materials to total raw materials consumed is significantly high in the sub-sector at 61% and 50% for tanning and manufacture of footwear respectively[131].

Despite its growth in production, the contribution of the leather industry to employment is also limited. In 2018, around 53,000 people were employed in the sector which accounts for only 2% of total employment in manufacturing[132]. Employment in the leather industry is forecasted to grow by 85% through 2025, with over 45,000 new direct jobs and over 57,000 indirect jobs created[133]. In addition, the majority of raw hides and skins are sourced from households with poor quality as the proportion of livestock under a commercial ownership/ranching model is estimated to be less than 1%[134]. According to the survey data from 20 manufacturers producing footwear and leather goods, the average capacity utilization is 60%[135]. As a result, Ethiopia continues to import leather products, which increases competition for local products.

Figure 30: Job creation potential of the L&LP sector (2025) and production capacity utilization (2021)[136]

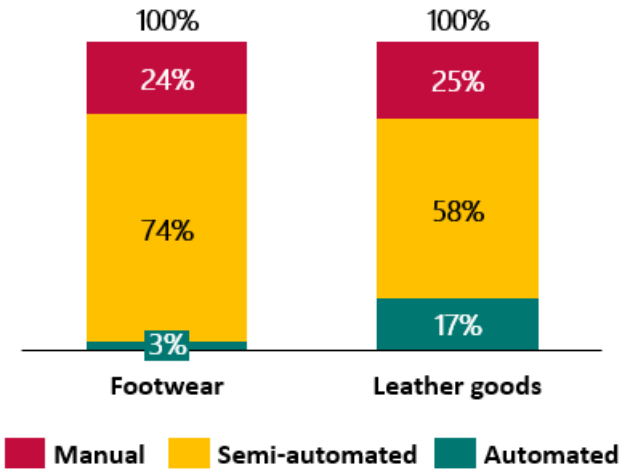


In recent years, the leather and leather products sub-sector has been incorporating technology into its operations to improve productivity, efficiency, and product quality as well. From automation in tanneries in the soaking, de-liming, tanning, and drying processes to improve the efficiency of the leather-making process and water recycling systems to reduce their water consumption and wastewater discharge, to using automated cutting machines similar to the textile sub-sector, the leather industry, especially has shown improvement in its application of technology during production. This is also somewhat evident in the survey results of medium and large-scale footwear

[130] Ibid.
[131] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[132] Jobs Creation Commission, Plan of Action for Job Creation (2020 – 2025), 2019.
[133] Ibid.
[134] MOTI, EIC, and EIDI, Creating New Productive Capacity for the Leather Industry: National Leather Roadmap, 2018
[135] The MoI has conducted a survey of 24 manufacturers engaged in spinning, weaving, fabric, and garment production across different parameters of which the average production capacity utilization was 43%
[136] MoI, Manufacturer Sample Survey Results, 2022

and leather goods manufacturers that predominantly use semi-automated technologies during production[137].

Figure 31: Technology utilization in the leather and leather products sub-sector (2021)[138]



The competitiveness of the leather and leather products sub-sector in Ethiopia depends on various factors including technical efficiency, labor productivity, and access to quality raw materials. However, Ethiopia has a competitive advantage in terms of low labor cost, and low electricity tariffs, with the government providing incentives such as duty-free imports and tax exemptions. The sub-sector has shown improvement in labor productivity and there is untapped potential in the domestic market which encourages production and import substitution.

The sub-sector offers multiple product categories at HS4 level that have the potential for import substitution. The table below presents these products and product categories. The potential implementation timeline and rationale for prioritization for all products is also included in Annex I.

Table 10: High-potential manufacturing product categories for import substitution in the leather and leather products sub-sector

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
Leather footwear	High	High	◑	◕	●
Other footwear	High	Medium	◑	◑	◕
Other footwear of plastic	High	Low	◑	◑	◑
Leather goods	Low	High	◕	◕	●
Non-leather goods	High	Low	◔	◔	◑
Shoe upper	High	Low	◔	◔	◔
Accessories (sole, last, and mold)	High	Low	◔	◔	◔
Other accessories	High	Low	◔	◔	◔

[137] Ibid.
[138] Ibid.

Ten products have been prioritized in the leather and leather products sub-sector based on their competitiveness to substitute. Among the products that have high competitiveness for import substitution are leather footwear, other footwear (such as ladies' shoes, non-leather shoes, sports shoes, and safety shoes), and other footwear made of rubber or plastic. Leather footwear and other footwear are also competitive due to the raw materials and technology availability. However, the challenge with these products is the insufficient availability of non-leather raw materials and the need for skill improvement. The demand for rubber footwear is also high, but the lack of plastic input suppliers and adequate technology and skills remains a challenge. Through targeted interventions, adequate production of these commodities can also be realized in the medium term.

Additionally, leather goods and non-leather goods have their competitiveness due to their raw material and technology availability, but they face challenges such as the lack of synthetic/non-leather input suppliers, and time it may take to attract investment or expand production. Finally, there are other components and accessories, such as shoe soles, lasts, and molds, which are critical for sustainable footwear production and also have high investment interest from FDI companies. However, there is limited technology and skill available now, so it may take some time to build skills and transfer technology to expand domestic production.

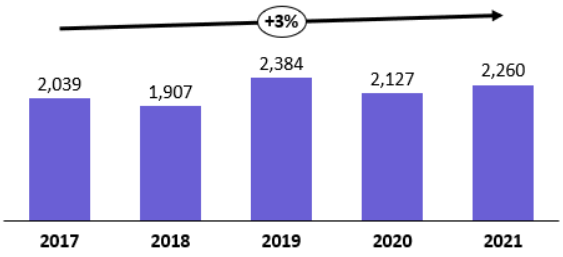
4.2.4 Chemical and construction inputs sub-sector

The chemical and construction inputs sub-sector is considered the backbone of manufacturing and the supplier of inputs to all major industries[139]. The industry is becoming more crucial to Ethiopia's economy as a core industry that supplies inputs for other domestic industries including textile, leather, food and beverage, and metal and engineering, strengthening inter-industrial ties in the process. However, the chemical industry in Ethiopia is still in its infancy. To fulfill the needs of the booming economy, there is a tremendous demand for the development of the chemical industry as mainly imports satisfy domestic chemical needs[140].

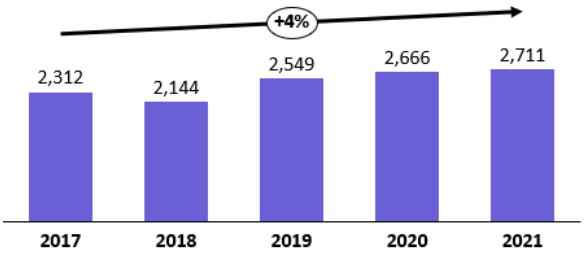
Because the outputs of the chemical and construction inputs sub-sector are complementary to the expansion of other industries, imports have increased at a cumulative annual growth rate (CAGR) of 3% from 2017 to 2021[141]. In 2021, plastics and plastic articles, fertilizers, miscellaneous chemicals, and rubber were the dominant C&CI products imported by Ethiopia among many other products ranging from paper and pulp, glass, and wood and furniture. As a result, imports totalling over USD 2.3 billion have added to the country's already limited foreign exchange reserves[142]. Therefore, to fulfill the population's rising demand, this provides an opportunity for the development of the sector and substitution of imports.

Figure 32: Total import value (left) and volume (right) of chemical and construction inputs products[143]

[139] Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry, UNIDO, 2019
[140] Ibid.
[141] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis.
[142] Ibid.
[143] Ibid.



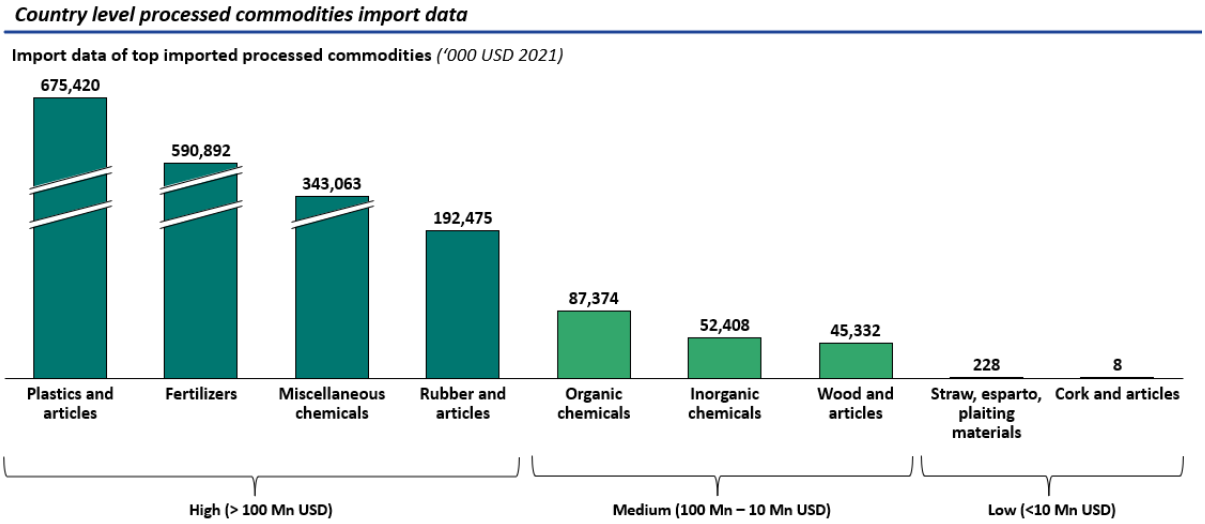
Import Value (Mn USD)



Import Volume ('000 Ton)

As a result of the scarcity of locally developed inputs, the C&CI sub-sector is heavily importing products. Looking at the chemical and construction inputs industry alone, due to the growing number of industries the import intensity ratio of manufacturers has grown. The number of C&CI industries has grown by 23% from 522 in 2014/15 to 643 industries in 2019/20. As a result, the imported share of raw materials in the sub-sector has increased. For instance, similar to other industries in the sub-sector, the ratio of imported to consumed total raw material costs for medium and large manufacturers of chemical and chemical products has increased from 49% in 2015/16 to 58% in 2019/20[144]. Coupled with the demand of other sector industries for C&CI products, the import of chemical products is steadily growing in recent years.

Figure 33: Import data of top chemical and construction input commodities ('000 USD, 2021)[145]



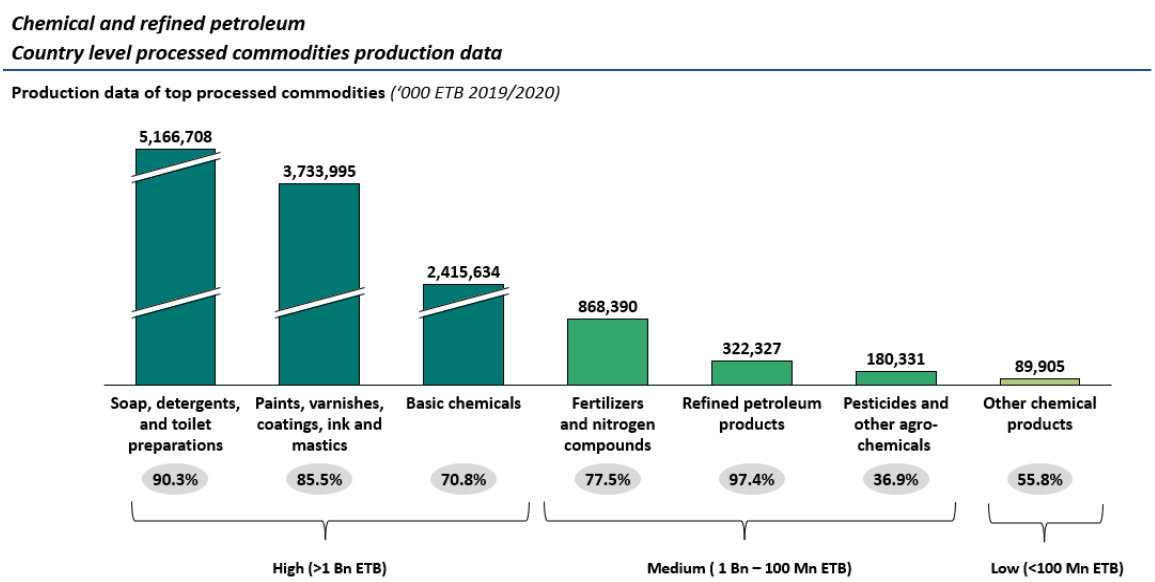
Ethiopia's chemical and construction inputs sub-sector is a diverse sub-sector consisting of several industries including chemicals, plastic and rubber, paper and pulp, wood and furniture, and glass and glass products. Despite some production in the chemical sub-sector such as detergents and basic chemicals including sulfuric acid, caustic soda, and chlorine, Ethiopia's chemical and construction inputs sector remains relatively underdeveloped with a significant reliance on imports for both inputs and finished products. Ethiopia's plastic and rubber industry produces bags, pipes, tires, and hoses,

[144] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[145] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis.

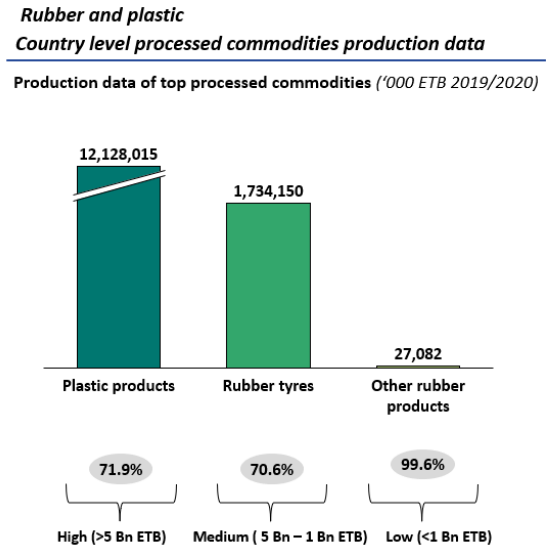
and in the paper and glass sub-sectors, there are a few large-scale paper mills producing packaging materials and glass factories. Additionally, although Ethiopia has a considerable number of small-scale furniture makers, the sector remains informal and unregulated[146].

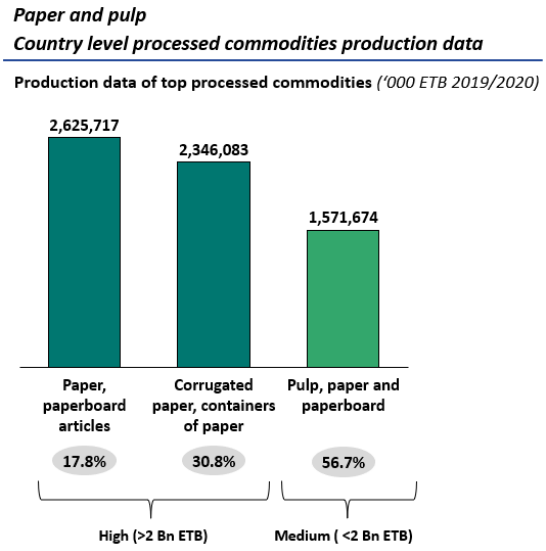
Although the sub-sector is in its infancy, to fulfill the needs of Ethiopia's booming economy, there is a tremendous demand for the development of the chemical industry which has facilitated the growth of the sector. In 2019/20, the chemical and construction inputs sub-sector generated over ETB 34 billion worth of outputs. By providing ETB 13.89 billion to the sub-sector, the plastic and rubber industry generated the highest revenue, followed by chemicals with ETB 11.58 billion[147], wood and furniture with ETB 6.56 billion, pulp and paper with ETB 6.54 billion, and glass and glass products with ETB 2.24 billion respectively[148]. Overall, the sub-sector has shown an increasing production trend, especially in paper, glass, and wood and furniture industries with growth in gross value production of 53%, 30%, and 17% respectively[149]. Value addition of the chemical industry to the manufacturing sector is also increasing. Chemicals (% of value added in manufacturing) – Ethiopia has increased by 120% from 5% in 2006 to 11% in 2015 according to World Bank[150].

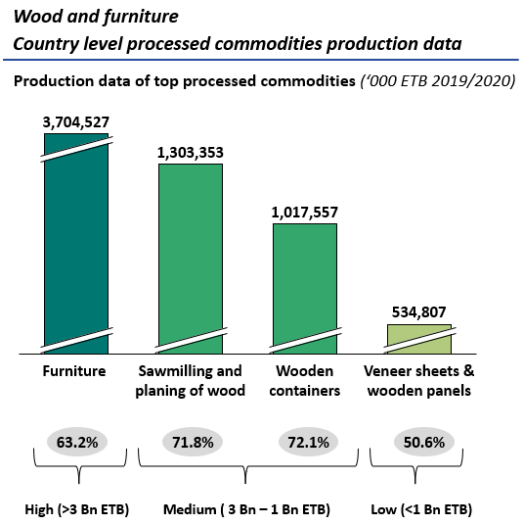
Figure 34: Production data of top processed chemical and construction input commodities ('000 ETB 2019/2020)151

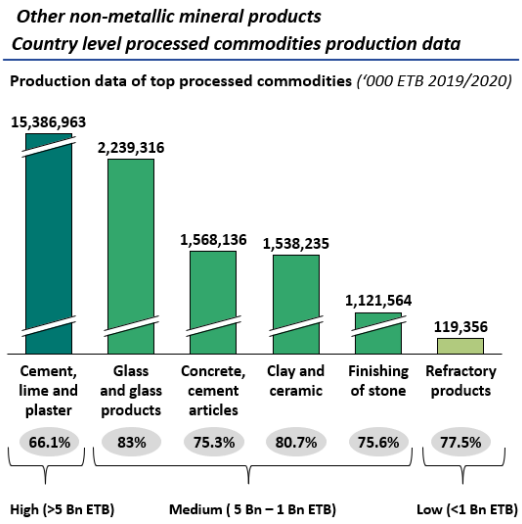


[146] Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry, UNIDO, 2019
[147] Note: this figure excludes the production of Fertilizers as the mandate of fertilizer production has shifted to the Ministry of Mines
[148] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[149] Ibid.
[150] World Bank, 2023
[151] Central Statistics Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.









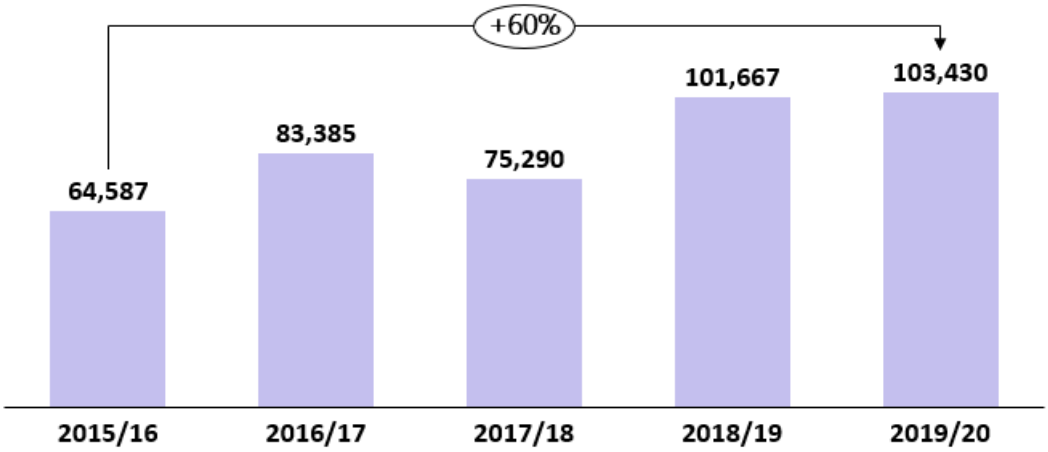
The competitiveness of the chemical industry is important for successful early-stage industrialization and long-term employment growth, as labor-intensive sub-sectors can sustain growth. Ethiopia's chemical industry, particularly in soap, detergents, and paints, has achieved critical mass, and cost competitiveness which is crucial for success due to its labor-intensive nature. Ethiopia's competitive wage structure and trainable labor force give the country an advantage that is not available in many other sub-Saharan African countries[152]. As a result, employment in the chemical and construction inputs sub-sector has grown by 60% from 64,000 in 2015/16 to 103, 430 in 2019/20[153].

Figure 35: Employment in the chemical and construction inputs sub-sector, 2016/17 – 2019/20 (number of employees)[154]

[152] Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry, UNIDO, 2019

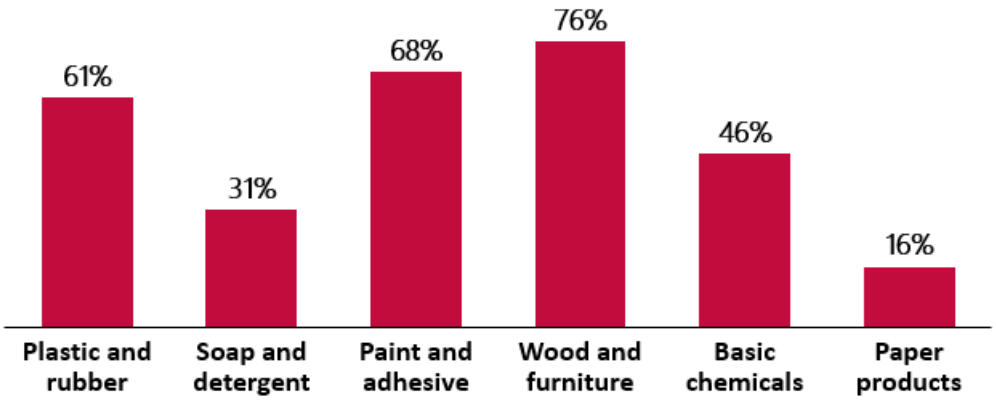
[153] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.

[154] Ibid.



Despite the growth in domestic production and employment in the chemical and construction inputs sector, most manufacturers still suffer from low production capacity utilization. A survey of 52 factories that produce goods related to this sector indicates that their average capacity utilization is 50%, with paper production having the lowest utilization rate at 16% and wood and furniture having the highest utilization rate at 76%[155].

Figure 36: Capacity utilization in the chemical and construction inputs sub-sector, 2021 (%)[156]

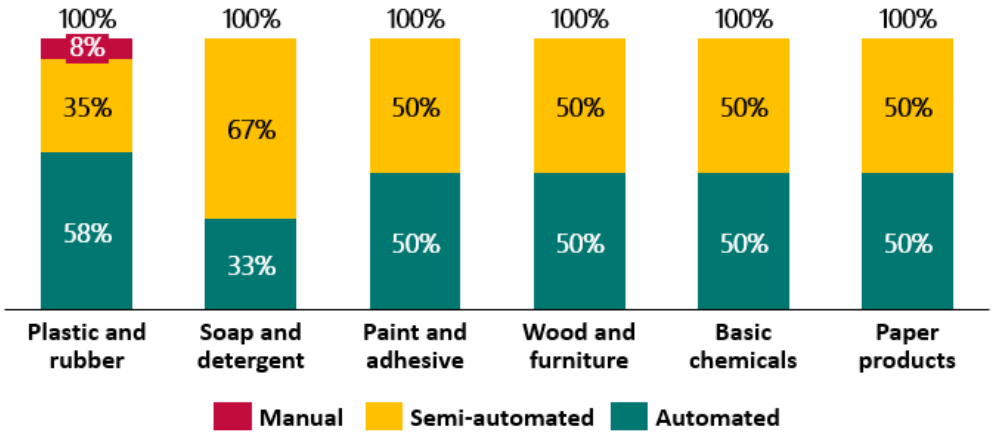


As the industry provides inputs for a wide range of industries such as construction, agriculture, and manufacturing, its incorporation of technology into its operations is critical. Use of chemical analysis and testing in chemical production, extrusion machines and injection moulding machines, computer-controlled cutting machines in wood and furniture production, and automated machines for pulp processing, papermaking, and printing are some examples of innovative technologies the use of which has increased in recent times. Based on the survey results of medium and large-scale manufacturers, it can be seen that the findings above are quite accurate, as the majority of manufacturers across various industries tend to rely on a combination of semi-automated and automated technologies in their production processes. Overall, the adoption of technology in the chemical and construction inputs sector in Ethiopia is helping to improve product quality, increase productivity, and reduce

[155] The MoI has conducted a survey of 52 manufacturers engaged in the production of several chemical and construction inputs across different parameters of which the average production capacity utilization was 50%
[156] Ibid.

environmental impact. However, there is still a lot of room for further technological development and innovation in the sector[157].

Figure 37: Technology utilization in the chemical and construction inputs sub-sector (2021)[158]



As can be seen, the local supply significantly falls short of the growing demand of the C&CI leading to trade deficit; however, there is a potential for Ethiopia to increase its domestic production of C&CI goods and reduce its import dependence. Ethiopia has potential in producing petrochemicals, which can substitute for imports and support the industry, as the country has proven gas reserves. However, the country is significantly dependent on imports for basic fuels and chemicals, and there is a need to develop backward and forward linkages for raw materials and underdeveloped downstream industry. The plastic processing and packaging industries are struggling to access basic raw materials and printing and film laminating units. Therefore, unlocking the production of petrochemicals can enable and activate multiple industries[159]. Similarly, investment directed towards rubber and pulp production can also have a positive impact on downstream production units, leading to unlocking the production potential of rubber and paper industries respectively[160]. Thus, fully realizing this potential, substituting imports, and bridging the trade gap will require persistent investment in domestic production, innovation, and infrastructure.

The sub-sector offers multiple product categories at HS4 level that have the potential for import substitution. The table below presents these products and product categories. The potential implementation timeline and rationale for prioritization for all products is also included in Annex I.

Table 11: High-potential manufacturing product categories for import substitution in the chemical and construction inputs sub-sector

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
Chemicals					
Soaps and detergent	High	Medium	◑	◕	◕
Paints and varnishes	Low	High	◕	◑	◕

[157] Ibid.
[158] Ibid.
[159] Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry, UNIDO, 2019
[160] Stakeholder interview, 2022

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
Toiletries	High	High	◕	◕	◕
Solvents and thinners	High	Low	◕	◑	◑
Basic chemicals (including textile dyes and leather tanning)	High	Low	◕	◔	◔
Adhesive and other construction chemicals	High	Low	◕	◑	◔
Paper and pulp					
Paper and packaging	High	Medium	◔	◑	◑
Female sanitary, diaper and wipes	High	Medium	◑	◑	◕
Pulp	High	Low	◑	◔	◔
Plastic and rubber					
Other articles of plastic	High	High	◕	◕	◑
Other plates of plastics	High	High	◕	◕	◑
Plastic tubes & fittings	High	Medium	◕	◕	◑
Other plastic plates, sheets etc.	High	Medium	◕	◕	◑
Polyacetals	High	Medium	◕	◕	◑
Other articles of rubber	High	High	◕	◕	◕
Tyre, rethreaded tyre	High	Medium	◕	◕	◑
Polypropylene bag	High	Medium	◕	◕	◑
Film packaging	High	Medium	◕	◕	◑
Ballpen	Medium	High	◕	◕	◑
Foam mattress	Medium	High	◕	◕	◑
Wood and furniture					
Packing lids and containers	High	High	◕	◕	◕
Furniture and parts	High	Medium	◕	◕	◕
Glass and glass products					
Container glass	High	Medium	◕	◕	◕

Twenty-three products have been prioritized in the chemical and construction inputs sub-sector within the chemicals, plastic and rubber, paper and pulp, wood and furniture, and glass and glass products sub-industries based on their competitiveness to substitute imports. Starting from the chemical industry, soaps and detergents have strong domestic production and most of the raw materials are found locally, requiring only minor support for full substitution. Paints and varnishes have well-established manufacturers with available technology and skills, but the main challenge is that inputs are imported from abroad and will require new investment to produce domestically. However, given the stronghold of existing manufacturers, fulfilling domestic demand, albeit through imports of inputs can be achieved in the short term until long-term chemical production strategies are developed. Toiletries and solvents are in demand and somewhat have raw materials available for common product types, but new investment is needed to wholly substitute imports for special product

types. Finally, prioritization of basic chemicals is necessary as chemicals are a critical catalyst for other sectors and require significant investment to fully substitute imports.

Secondly, in the plastics and rubber industry, some products, like other plastic plates and sheets, plastic tubes and fittings, and foam mattresses, can be substituted in the short to medium term, as the raw materials and production technology are available locally. Other products, like other articles of plastic, plastic plates and films, and vulcanized rubber, will require new investment to produce domestically and substitute imports in the medium to long term. Polyacetals, a critical input for several sectors, also require sophisticated technology and high investment capital, making it a long-term project for import substitution but has been prioritized due to its importance for downstream industries of consumer goods. Tyres and rethreaded tyres also have the potential to substitute imports in the short run using existing industries and ongoing projects of rubber farm expansion. Film packaging is a highly demanded product that will require new investment as the agro-processing sector grows and demand increases. Overall, the plastic and rubber industry has a range of products with varying timelines and investment requirements for import substitution.

Thirdly, in the paper and pulp industry, one of the key products prioritized is paper packaging/carton, which is a key auxiliary product that supports other sectors but requires new investment as raw materials are not locally available and the technology is capital intensive. Another product is female sanitary pads, diapers, and wipes, which have high demand and somewhat available raw materials and manufacturers. With additional support, these products can be substituted in the short-term. Lastly, pulp is a critical input for the paper and paper products production and require new investment; therefore, their substitution is possible in the medium-to-long term. Overall, the paper and pulp industry has several products that require investment to fully substitute imports, but with the right support and resources, it can be achieved.

Finally, the wood and furniture industry has also been prioritized for import substitution due to its competitiveness. In the packing lids and containers segment, substitution can be achieved in the short-to-medium term by directing production towards high-demand product types. The required resources for production are available locally; however, moderate investment is necessary to achieve the desired level of substitution. In furniture production, raw materials are locally available, and manufacturers operate at small, medium, and large scales. This makes substitution possible in the short-term using existing industries and ongoing projects. With additional support, these products can be further strengthened to meet local demand and replace imports.

4.2.5 Metal and engineering sub-sector

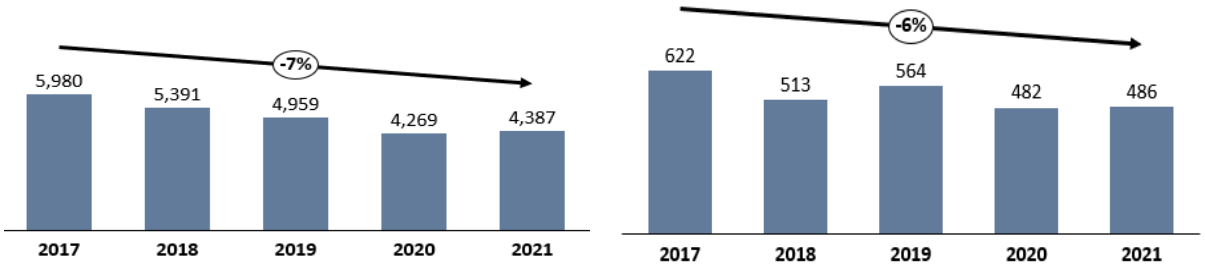
Ethiopia's metal and engineering sub-sector is a priority for investment in order to improve capacity and performance. The Ethiopian metal industry sector can be divided into two categories: basic metal industries which produce primary metal products from ore and scrap[161], and engineering industries which produce secondary products from primary metal products such as machinery, transport equipment, and electronic equipment[162]. This sector is an important contributor to the country's economy, providing employment opportunities and contributing to economic growth.

[161] Note: basic metals such as iron and steel are not included in the study as they are outside the mandate of MoI and MIDI

[162] Addis Chamber Journal of Trade and Business, Competitiveness of Ethiopian Industries, 2014.

Ethiopia is highly dependent on imports of metal and engineering products to meet its domestic demand. Machinery, motor vehicles, and electrical equipment constitute the biggest import items for the sub-sector. The top imported metal and engineering products in Ethiopia include machinery and equipment such as construction machinery, electrical machinery, and vehicles; and electronics such as TVs, radios, and mobile phones[163]. Although the import of metal and engineering products has declined over the years mainly ascribed to a shortage of foreign currency[164]. spending is still one of the highest compared to other sectors with Ethiopia importing over USD 4 billion worth of products in 2021 alone[165]. Therefore, to address this high demand, it is pertinent to focus on the development of the sector and design mechanisms to offset the demand through domestic production.

Figure 38: Total import value (left) and volume (right) of metal and engineering products[166]

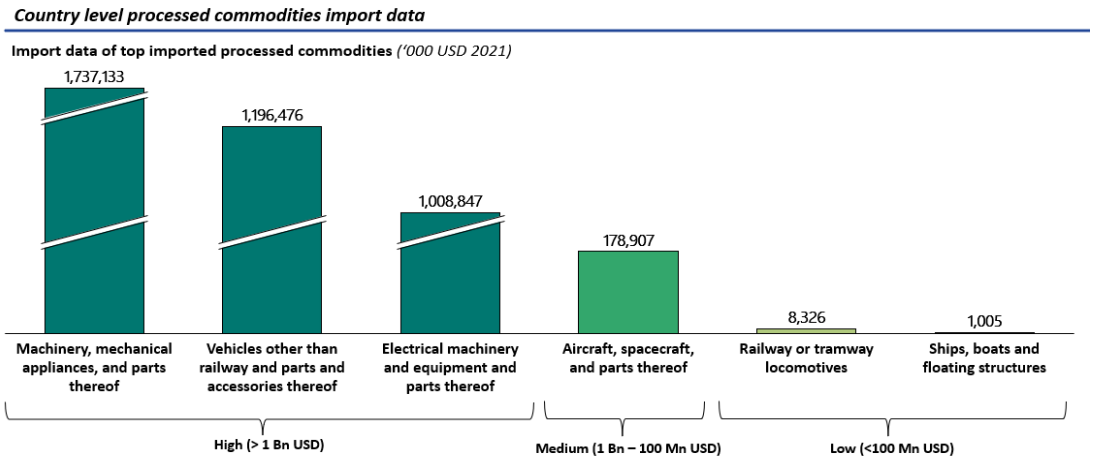


Import Value (Mn USD) **Import Volume ('000 Ton)**

The demand for imported machinery and mechanical appliances and vehicles fluctuates yearly due to global market conditions but generally shows the highest demand in Ethiopia's metal and engineering industry. The main exporters of these commodities to Ethiopia are China and Japan. As the manufacturing sector continues to grow, the demand for fabricated metals and machinery and equipment has increased. Additionally, due to the rise of the growing service industry, there is also a significant demand for imported motor vehicles in Ethiopia. Local production of these goods is insufficient to meet the demand, leading to substantial annual spending on imports. However, the Ethiopian government is taking measures to promote investment in these sectors to bridge the gap between the demand and supply of metal and engineering goods.

Figure 39: Import data of top metal and engineering commodities ('000 USD, 2021)[167]

[163] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis.
[164] Tadesse, B. (Ph. D), Analysis of Achievements and Challenges of Metal, Engineering, Chemicals and Construction Inputs Industries, 2018
[165] Ibid.
[166] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis.
[167] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis.

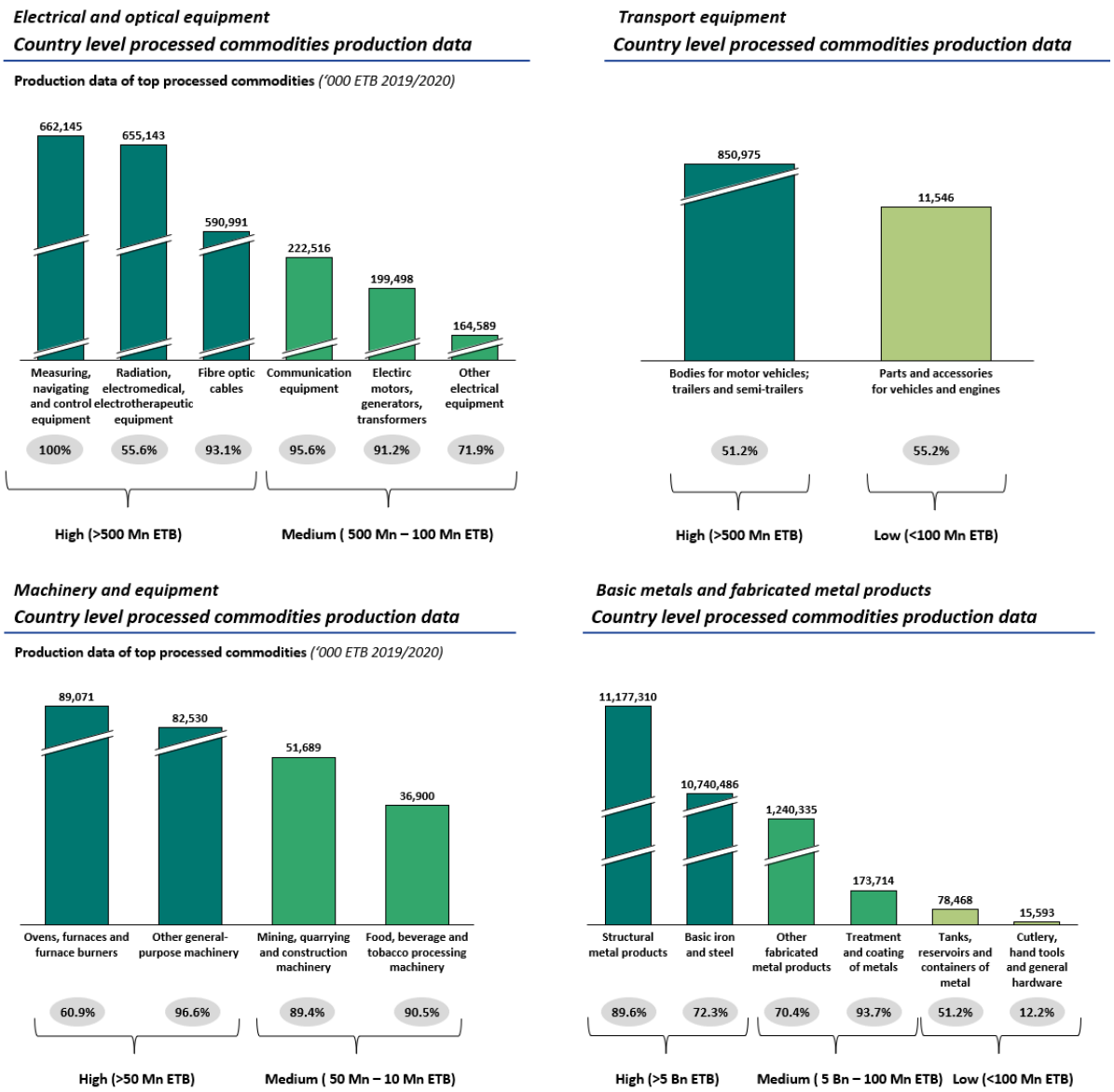


Ethiopia's production of metal and engineering products is still in its early stages, with limited capacity and technology. The country's metal and engineering sector primarily focuses on the production of basic steel and iron products, construction materials, and basic machinery. The machinery and equipment subsector is a large importer, but its production has been growing steadily over the past five years. It also has the potential to develop backward linkages with fabricated metals in the long term. On the other hand, Ethiopia's motor vehicle, trailer, and semi-trailer sub-industry is nascent and is characterized by the assembly of motor vehicles. The subsector has declining imports and has a potential for growth due to the emerging middle class.

The Ethiopian government encourages import substitution manufacturing industries, but the effectiveness of the existing industries is limited[168]. The import substitution effects of local metal and engineering manufacturing industries in Ethiopia, are weak and only slightly improving due to the fast growth of imports of manufacturing goods outpacing the growth of the industries' value addition[169]. The challenges of weak import substitution effects are attributed to heavy dependence on imported raw and semi-finished materials and spare parts, increasing imports of finished manufacturing goods, and low-capacity utilization of local industries.

Figure 40: Production data of top processed metal and engineering commodities ('000 ETB 2019/2020)[170]

[168] Tadesse, B. (Ph. D), Analysis of Achievements and Challenges of Metal, Engineering, Chemicals and Construction Inputs Industries, 2018
[169] Ibid.
[170] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.

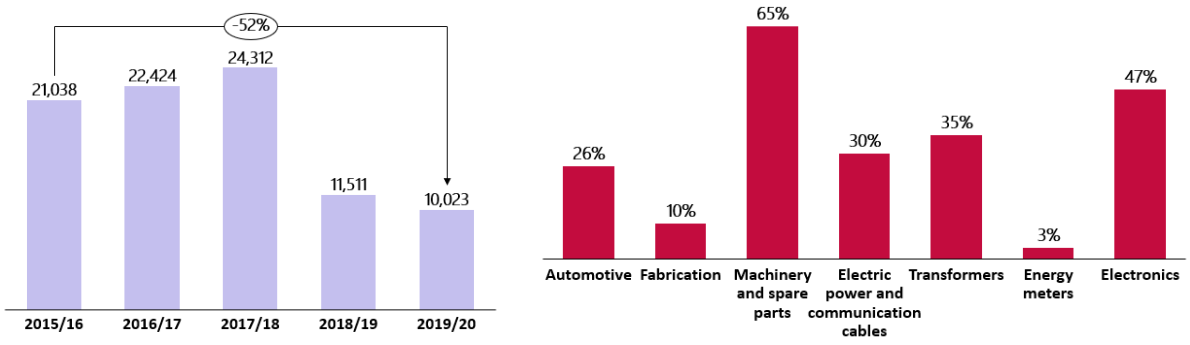


The import intensity of fabricated metal products, machinery and equipment, and vehicles has also been increasing. In 2019/20, the import intensity of fabricated metals, machinery and equipment, and vehicles and trailers were 46%, 84% and 65%, respectively[171]. This indicates weak backward linkages with the basic iron and steel subsector. The basic iron and steel subsector has high import intensity of inputs, almost 72%, as well which shows further weak backward linkages with mining. Weak backward linkages indicate the poor integration of the industries, which has led to inefficiencies and a lack of competitiveness. It can also limit the potential for the development of the domestic industry. Therefore, efforts to develop strong backward linkages in the metal and engineering industry in Ethiopia are necessary. In order to develop backward linkages, there is a need to invest in developing local capabilities in the production of inputs and intermediate products, including basic iron and steel, which can reduce the dependence on imports. This can help to develop a strong local metal and engineering industry, which can then support the development of other sectors in the economy.

[171] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.

Despite the relative growth in domestic production in the sub-sector, employment and production capacity utilization in the metal and engineering sub-sectors is relatively low. According to CSA, the metal and engineering sector currently employs only about 10,023 people across the fabricated metal, machinery and equipment, and vehicles and trailers industries in 2019/20 in 178 manufacturing establishments[172] which is substantially low compared to other manufacturing industries such as agro-processing and textile. A survey of 27 manufacturers of automotives, machinery, and electronics indicates that their average capacity utilization is 27%[173].

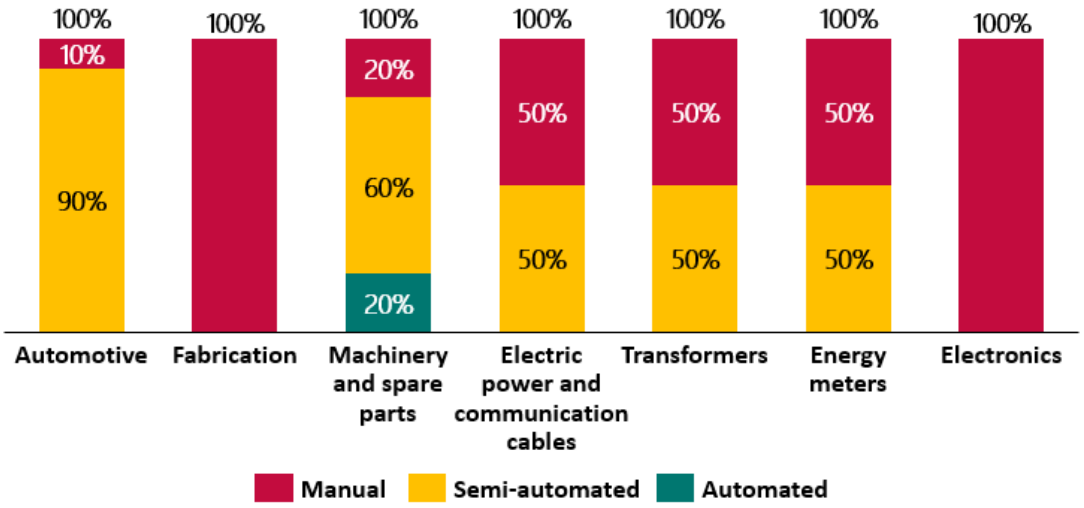
Figure 41: Capacity utilization in the metal and engineering sub-sector, 2021 (%) and production capacity utilization (2021)[174]



The metal and engineering sector in Ethiopia uses manual and advanced manufacturing technologies and automation for the production of various products such as machinery and equipment, electronics, vehicles, and fabricated metal. CNC machines, laser cutting, and other computer-controlled machinery for precision manufacturing are becoming more common in the manufacturing processes of the above industries in Ethiopia in recent years. The sector is also focused on developing specialized machinery and equipment for different industries, electronic components and systems, electric vehicles, and renewable energy systems. However, as the sub-sector is nascent, the majority of manufacturers are engaged in traditional or manual means of production such as traditional blacksmithing and welding in fabrication. In addition, the advancement in the sector is also limited, manufacturers are mainly engaged in the assembly of goods nearly as much as the production (e.g., in the electronics and automotive industries), hence, the use of manual and semi-automated technologies is extensive. Even though the metal and engineering sector is heavily reliant on advanced manufacturing technologies and automation globally, that is not the case for Ethiopian manufacturers, including medium and large-scale industries. Therefore, it is pertinent to fill the gap in technological advancement as there is still a lot of room for further development and innovation in the sub-sector[175].

Figure 42: Technology utilization in the metal and engineering sub-sector (2021)[176]

[172] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[173] The MoI has conducted a survey of 27 manufacturers engaged in the production of several metal and engineering products across different parameters of which the average production capacity utilization was 27%
[174] MoI, Manufacturer Sample Survey Results, 2022
[175] Ibid.
[176] Ibid.



The metal and engineering sector in Ethiopia faces similar challenges to the other sector in terms of import dependence and potential for domestic production. The country has significant potential in producing metal products, machinery, and engineering goods, which can substitute for imports and support the industry. However, the sector is heavily dependent on imported raw materials, spare parts, and finished goods. To unlock the potential of the sector and reduce import dependence, there is a need to develop backward and forward linkages for raw materials and underdeveloped downstream industries. Investment in domestic production, innovation, and infrastructure is also required to fully realize the potential of the sector, reduce the trade imbalance, and improve the contribution of the manufacturing sector to the overall economic development of Ethiopia.

The sub-sector offers multiple product categories at HS4 level that have the potential for import substitution. The table below presents these products and product categories. The potential implementation timeline and rationale for prioritization for all products is also included in Annex I.

Table 12: High-potential manufacturing product categories for import substitution in the metal and engineering sub-sector

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
Fabricated metal					
Structures and parts, of iron or steel	High	High	◕	◑	◑
Aluminum bars	High	High	◕	◑	◑
Flat rolled iron	High	High	◕	◑	◑
Hot rolled bars of iron	High	Medium	◕	◑	◑
Tanks of iron or steel	High	Medium	◕	◑	◑
Cloth of iron or steel wire	High	Medium	◕	◑	◑
Other tubes, pipes and hollow profiles	High	High	◕	◑	◑
Vehicles					
Parts of aircrafts	High	Medium	◕	◕	◔
Parts of motor vehicles	High	Medium	◕	◔	◔

Top HS04 Product categories	Demand	Supply	Capacity Utilization	Technology Utilization	Enabling Environment
Motor vehicles	High	Low	◑	◔	◔
Machinery and equipment					
Electrical transformers	High	High	◕	◕	◕
Centrifuges	High	Medium	◕	◕	◕
Electrical boards	Medium	High	◕	◕	◕
Electrical motors, generators	High	Medium	◕	◕	◕
Ignition equipment	High	High	◕	◕	◕
Pumps & compressors	High	Medium	◕	◕	◕
Electrical wires and apparatus	High	Medium	◕	◕	◕
Machinery - food, drink	High	Medium	◕	◑	◑

Based on their competitiveness to substitute imports, eighteen products have been prioritized in the metal and engineering sub-sector within the fabricated metal, vehicles, and machinery and equipment sub-industries. In the fabricated metals industry, these products include structures and parts made of iron or steel, which have a lot of local raw material availability and capacity for short-to-medium term substitution. However, there are challenges with aluminium bars as there are few local producers and high demand, and flat rolled iron that requires expensive extraction or processing of iron ore. Hot rolled bars of iron can be substituted in the short-to-medium term as there are several local producers, but they face challenges with access to metal scrap. Tanks of iron or steel have a lot of local producers but are still being imported, while cloth of iron or steel wire and other tubes, pipes, and hollow profiles can be substituted in the short-to-medium term with increased capacity utilization and new investment in existing local producers. Overall, there is potential for import substitution in the fabricated metals industry in Ethiopia through strategic support and investment.

Coming to the motor vehicles and trailers industry, parts of aircraft have been prioritized due to Ethiopia's historical production potential but may be difficult to fully substitute due to their adherence to aviation standards. On the other hand, parts of motor vehicles have a huge local market due to the high quantity of vehicle imports, and the spare part manufacturing industry is growing with investment opportunities, although the wide variety of parts requires time for full substitution. Motor vehicles also have a significant impact on the economy due to massive import, so the government is promoting the sector for import substitution. The assembly industry is technologically intensive and has seen success in assembling vehicles by renowned brands such as Hyundai, Peugeot, and Kia. Thus, focusing on enhancing and capacitating this sector will aid in achieving import substitution.

Finally, the machinery and equipment industry also has several products that have been prioritized for import substitution due to their competitiveness. Electrical transformers are considered somewhat substituted as existing factories have the capacity to produce them so continued support of these domestic manufacturers can enable the substitution of imports in the short-to-medium term. Centrifuges and electrical boards are new areas of focus that are in high demand and there are some manufacturers operating below capacity, so special focus is needed to increase production. Electrical motors and generators, pumps, and compressors also have strong potential for local production and

substitution as they are input for other industries, but the current domestic production doesn't meet demand. Electrical apparatus and parts are cross-functional for different users, and investment attraction and capacitation of existing manufacturers is necessary. Finally, machinery for food and drink production demands focus and high-tech machinery demands deep skill but enhancing the production capacity of existing manufacturers is pertinent to support the agro-processing industries.

4.2.6 Strategic commodity selection discussion and list

To identify high-potential import substitution product categories in this section, data collection, document reviews, government stakeholder engagements, expert consultations, and private sector discussions were conducted. While some products were selected for their short-term substitutability, other critical products were prioritized based on their potential contributions towards catalysing different product value chains, although their short-to-medium-term competitiveness may be limited.

While it's important to identify priority commodities that are essential for the future growth of the country, is equally critical to consider how these commodities fit into the overall economic strategy of the nation and how their availability and production can impact the economy. To ensure that these strategic commodities remain available and accessible, the government needs to take steps to ensure their production growth and supply chain development. This might involve implementing policies that incentivize investment in these industries or providing funding for research and development to improve production efficiency and quality. It's also important to keep in mind that the identification of strategic commodities can vary depending on the country's economic context and priorities. For example, in some countries, energy resources such as oil and gas may be considered strategic, while in others, agricultural products or rare earth metals may be more critical. In this context strategic commodities have been defined as products that have untapped potential to contribute significantly to drive the growth of other sub-sectors and value chains, and products that can create significant economic returns and assure the national security of the country.

A summary list of the strategic commodities and the rationale for their selection is included in Table 13 below. The development status of the value chain for each strategic commodity is also presented qualitatively through Harvey balls, providing a high-level overview. The value-chain development outlook takes into account various factors such as current production levels, utilization of production capacity, the extent of technology adoption (ranging from manual to fully automated processes), availability of skilled labor, adequacy of infrastructure, market connectivity, and the presence of auxiliary industries. Darker or complete Harvey balls indicate a robust value chain development, while lighter ones indicate the opposite. Thus, more complete value chains signify potential for quick wins, with adequate input availability and favorable conditions for sector growth. Conversely, strategic commodities with weaker value chain development necessitate strong government support and promotion to attract private sector investment, indicating a need for significant efforts to strengthen the value chain.

Table 13: List of strategic commodities

Strategic commodities and value-chain development	Rationale for selection
Food and beverage	
Wheat ◕ **Sugar** ◕ **Edible oil** ◕	The rapidly expanding food and beverage sub-sector provides robust forward linkages to the agriculture industry, particularly through agro processing. Considering the significant cost of imports of wheat, sugar and edible oils and Ethiopia's potential to produce these goods to substitute imports in the short-to-medium term, it remains pertinent to promote their production to ensure food security and foster the development of healthy and thriving communities and workforces.
Textile and apparel	
Cotton ◑	Cotton serves as a crucial raw material for the textile and apparel industry. By focusing on cotton production, Ethiopia can support the growth of its textile sector and attract investment in textile and garment manufacturing. This promotes value addition within the country, as cotton can be processed into yarn, fabric, and garments, leading to increased growth of domestic industries, enhanced competitiveness, domestic self-sufficiency, export growth and diversification, and foreign exchange savings.
Chemical and construction inputs	
Basic chemicals ◔	In the medium term, basic chemicals present promising opportunities for forward linkages with the textile and apparel, leather and leather products, and food and beverage sectors as it provides critical inputs like dyes for fabrics, chemicals for tanning, and preservatives and other goods for foods respectively. Given Ethiopia's potential reserves the products also present strong prospects for export in the long term.
Pulp ◔	The paper processing industry relies on the availability of pulp, which is the raw material used to make paper and paper-based packaging products. Without a reliable and cost-effective source of pulp, the production of paper products can become expensive, making it challenging for the industry to thrive. Producing pulp locally can reduce the country's reliance on imported pulp, create job opportunities, and support the development of other industries. Furthermore, by producing pulp locally, Ethiopia can enhance its value chain and develop more sustainable and environmentally friendly practices. This can lead to a reduction in carbon emissions and other environmental impacts associated with transporting pulp from other countries.
Rubber ◔	Rubber production can generate significant income for both smallholder farmers and large-scale commercial enterprises, providing a valuable source of income for many households in rural areas. Additionally, given Ethiopia's potential to produce a significant

Strategic commodities and value-chain development	Rationale for selection
	amount, rubber exports can generate foreign exchange, contributing to the country's balance of payments. It is also important to support the development of downstream industries, such as rubber processing, tyre manufacturing, etc. leading to further economic growth and job creation.
Petrochemicals ◔	While plastics are a prominent focus for import substitution, their heavy reliance on imports persists due to the shortage of domestic input materials. Nevertheless, the development of petrochemicals could make the production of plastic and plastic products it viable for the medium term as plastics are a critical auxiliary inputs like polypropylene bags and films for packaging, tubes, gears, and bearings for machines, etc.
Metal and engineering	
Basic and fabricated metals ◔	Basic metals have significant potential to create forward linkages, given their application in the production of fabricated metals, which are essential intermediate goods for machinery, electronics, and vehicle production. Additionally, these products contribute to the construction and other industrial sub-sectors. This, in turn, lays a strong foundation for the growth of medium- and high-technology industries involved in the production of more complex outputs in the long-term.

Developing these strategic commodities' value-chain is boosting the production and supply of intermediate and capital goods to realize competitive industrial growth. While implementing interventions, under any export or import substitution strategies, for any commodity, recognizing these strategic commodities unique challenges and unlocking their real economic potential is required. To do so, taking a focused approach to dissect the value chains of these intermediate industrial goods and understanding their end-to-end processing is necessary. This includes assessing sufficiency of these strategic capital goods resource base, developing domestic processing and production capacity, establishing a regulated post-processing value-chain, and market linkages are some to have domestic processing know-how. By leveraging the EIH resources, MoA's wheat and edible oil initiatives, and the MoM nation-wide resource mapping efforts, the MoI should develop targeted projects and interventions tailored to address the specific bottlenecks and weaknesses in each strategic commodity value-chains and work towards establishing upstream, downstream, and horizontal linkages.

Focusing on each strategic commodity allows a nuanced approach to address short-to-medium-term competitiveness challenges. Some products along the value chain have immediate substitutability potential, suitable for rapid development of the final consumer manufactured goods, while others require longer-term interventions to address production and availability limitations affecting the final good market competitiveness. By understanding the specific challenges of these strategic commodities, resources can be prioritized more effectively to achieve tangible results in the manufacturing industry. Such an approach would also enable the government and private sector to collaborate effectively on long-term projects. With a comprehensive understanding of the value chains, investment can be attracted to high-potential areas and joint initiatives can be undertaken to enhance resource extraction and processing capabilities in critical value chain.

4.2.7 Other sectors

This sub-section provides a brief, but concise overview of additional sectors and sub-sectors import substitutability using import and production trends. It is important to note that these sectors lie outside the mandate of the Ministry of Industry, and the findings are derived from secondary data. Similar to the five manufacturing sub-sectors, a high-level overview of the trend of domestic demand of imported commodities at HS04 level and trend of domestic supply of product categories (using the ISIC 03 and annual agricultural production data) is discussed. The discussions presented do not constitute a comprehensive competitiveness assessment rather serve as an indication to the potential for further exploration. Two sectors and one manufacturing sub-sector industry are reviewed below.

A. Agriculture

The agriculture sector in Ethiopia serves as the backbone of the economy, contributing ~38% to the GDP[177], over 60% to exports and jobs[178] [179]. It exhibits significant potential for growth and development, as it is projected to grow by an annual average rate of 5.9% between 2021 and 2030[180]. However, despite its significance, the sector faces several challenges that hinder its full potential. To address these issues and boost domestic production to further contribute to export growth and import substitution, the government of Ethiopia has several initiatives in place to improve research and development in agriculture and to improve all-rounded support given to all actors in the agricultural sector. The 10-year perspective plan also prioritized the sector in terms of initiating reforms to improve the role and participation of the private sector, expand small- to large-scale irrigation development, improve the supply of inputs and finance, enhance the productivity of livestock, protect the environment and natural resources, improve agricultural production methods, reduce post-harvest loss, promote research-based food security systems, and promote import substituting major agricultural crop production[181].

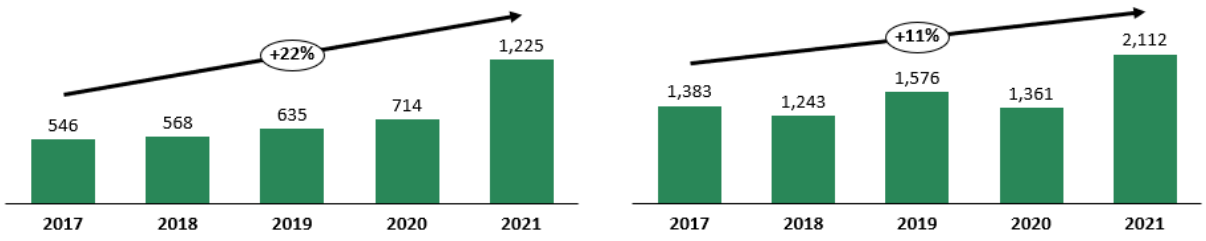
Population growth, expanding urbanization, and increasing income contribute to the increasing demand in the sector. As a result, despite its reliance on agriculture, the country still faces challenges in achieving self-sufficiency and reducing food insecurity. Insufficient access to modern agricultural practices, limited use of advanced technologies, and inadequate infrastructure for storage and transportation contribute to the low productivity and inefficient distribution of agricultural produce. Nearly 95% of crop production in Ethiopia is attributed to smallholder farmers, with over 64% of them cultivating their crops on plots of land that are less than one hectare in size. Enhancing the productivity of these smallholder farmers plays a pivotal role in the transformation of the agricultural sector and has the potential to uplift the living standards of the rural population[182].

Driven by this growing demand, certain crops and products are import-dependent to meet domestic demands. Ethiopia imports some of its strategic agricultural commodities from several global suppliers such as the USA, Ukraine, and the Netherlands, as well as neighbouring countries, such as Sudan and Djibouti[183]. The import of agricultural products, excluding processed goods discussed in the

[177] World Bank Data, www.data.worldbank.org, 2022.
[178] NBE, Annual Report 2020/21, 2021
[179] World Bank Data, www.data.worldbank.org, 2022.
[180] Planning and Development Commission, Ten Years Development Plan 2021 – 2030, 2020.
[181] Ibid.
[182] Office of the Prime Minister, A Homegrown Economic Reform Agenda: A Pathway to Prosperity, 2020.
[183] Observatory of Economic Complexity – OEC World, (www.oec.world), 2022

agro-processing section of this document, has grown at a cumulative annual growth rate (CAGR) of 22% from 2017 to 2021 with imports reaching USD 1.2 billion in 2021[184].

Figure 43: Total import value (left) and volume (right) of agriculture products, 2021[185]



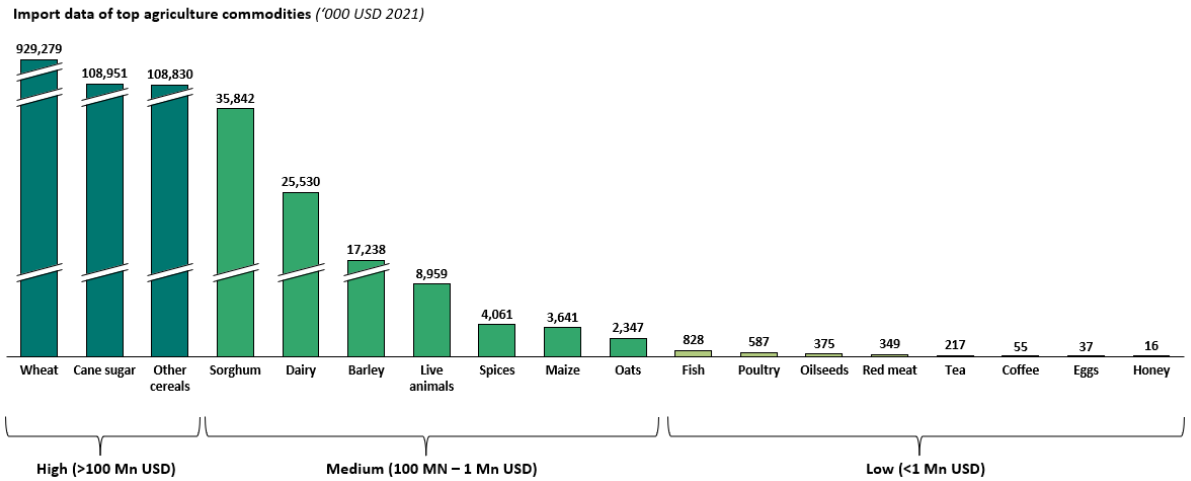
Import Value (Mn USD) **Import Volume ('000 Ton)**

Wheat, sugar, and some animal products are among the top imported agricultural commodities. Wheat stands out as the primary agricultural import in Ethiopia**,** with Ukraine, the USA, and Russia being the leading exporters to the country. Cane sugar also holds significant importance as a major agricultural import, with India supplying approximately 92% of Ethiopia's total sugar imports[186]. In terms of cereals, sorghum and barley are notable imports, with the USA and Italy exporting the former, while Australia takes the lead as the main exporter of the latter. Coming to animal products, dairy products dominate the imports, primarily sourced from the Netherlands, Saudi Arabia, and New Zealand. Concentrated milk and cream in powder, granule, and other solid form, both sweetened and unsweetened, make up 77% of total dairy imports. Whole milk, UHT, butter, yoghurt, and other dairy products also contribute significantly to the high imports in the sector. Furthermore, poultry products, particularly from Brazil (accounting for approximately 46% of poultry exports) and the Netherlands (contributing around 19%), play a substantial role in Ethiopia's animal product imports[187]. Consequently, it becomes imperative to formulate initiatives specifically targeting the production development of these crucial commodities that constitute a significant portion of the country's expenditures.

Figure 44: Import data of top agricultural commodities ('000 USD, 2021)[188]

[184] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[185] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022; Note: import figures exclude agro-processing products
[186] Observatory of Economic Complexity – OEC World, (www.oec.world), 2022.
[187] Ibid.
[188] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.

Country level agriculture commodities import data



Note: The list includes agro-processed goods such as red meat, poultry, dairy, etc. that are not under the remit of the MoI for a comprehensive outlook on product baskets

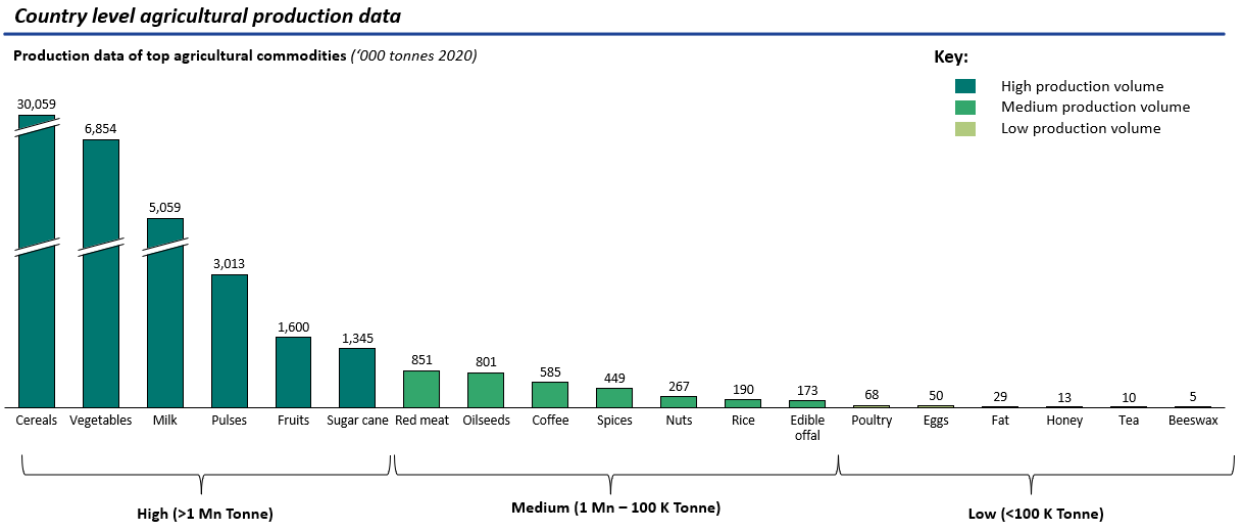
Agricultural productivity has also grown rapidly in the past decade due to the intensification of modern seeds, fertilizer use, and farm management techniques[189]. The main crops grown in Ethiopia encompass a wide range of agricultural products. Cereals such as teff, wheat, maize, barley, and sorghum, along with pulses like beans, peas, chickpeas, and lentils, and oilseeds including sesame, niger seed, sunflower, and linseed, form the foundation of the agricultural sector. Additionally, Ethiopia is a major producer and exporter of diverse fruits like banana, mango, avocado, and citrus, vegetables including potato, onion, tomato, and cabbage, as well as key commodities like coffee, sugarcane, and cotton. The country also plays a significant role in livestock production, with cattle, sheep, goats, camels, poultry, honey, leather, dairy, and meat being major contributors to both the domestic market and exports.

Cereals, vegetables, sugar, and dairy products are among the key agricultural commodities produced on a large scale in Ethiopia that have the potential to reduce import dependence. Wheat, barley, sugar, and dairy have high domestic demand but there is opportunity to substitute imports as local form of production is high[190]. In 2020, the country witnessed impressive yields, with maize production surpassing 10 million tonnes, wheat production reaching 5 million tonnes, and other cereals contributing 14 million tonnes to the overall agricultural output[191]. The government has made significant strides in irrigated wheat production which by investing in irrigation infrastructure and providing advisory services on salinity management drainage methods[192]. These cereal crops alone accounted for a significant portion of the total agricultural production. Additionally, Ethiopia produced more than 6 million tonnes of vegetables and 1.6 million tonnes of fruits during the same year. In terms of animal products, milk production emerged as the most substantial, exceeding 5 million tonnes (converted from litres), followed by 851 tonnes of red meat sourced from cattle, goats, sheep, camels, and pigs[193]. Ethiopia's annual cow milk production has shown a significant growth, increasing

[189] HGER
[190] EIC and ATA, Ethiopia's Food and Beverage Processing and Auxiliary Industry Strategy, 2020.
[191] Food and Agriculture Organization – FAOSTAT, (www.faostat.com), 2020.
[192] MoA, 10-in-10 Programs, 2021.
[193] Food and Agriculture Organization – FAOSTAT, (www.faostat.com), 2020.

at 4% annually in the past 15 years[194]. Similarly, red meat production has also grown at nearly 3% due to the high demand for goat and sheep meat in the export market[195]. These figures indicate that Ethiopia possesses evident potential to reduce its dependency on imported agricultural goods by implementing targeted interventions that enhance production and productivity.

Figure 45: Production data of top agricultural commodities ('000 Tonnes, 2020)[196]



Ethiopia has significant agricultural resources, including fertile land, diverse agro-climatic conditions, and abundant water resources. Ethiopia possesses abundant natural resources and boasts one of the most diverse agro-ecological landscapes globally. With a vast expanse of approximately 74.3 million hectares of arable land, the country encompasses 18 primary and 49 sub-agro-ecological zones. These zones span across altitudes ranging from 148 meters to an impressive 4,620 meters above sea level[197].

To achieve sustainable growth and reduce import dependency, Ethiopia aims to increase its domestic agricultural production through the adoption of modern technologies, improved irrigation systems, and the promotion of commercial farming practices[198]. The government has also encouraged private sector participation in the agriculture industry by providing incentives and facilitating access to finance and markets. In addition, efforts are being made to enhance value chains within the agricultural sector, including the development of agro-industrial parks, agri-processing zones, and the promotion of agribusiness entrepreneurship. These initiatives aim to add value to agricultural products, reduce post-harvest losses, and create employment opportunities along the agricultural value chain.

The agriculture sector in Ethiopia presents significant opportunities for import substitution and general growth and development. By addressing the challenges faced by the sector, promoting modern farming practices, and investing in infrastructure and value chains, Ethiopia can enhance its agricultural productivity, reduce import dependency, and improve food security for its population

[194] MoA, 10-in-10 Programs, 2021.
[195] Ibid.
[196] Food and Agriculture Organization – FAOSTAT, (www.faostat.com), 2020.
[197] MoA, Agro-ecological Zones of Ethiopia, 1998.
[198] Office of the Prime Minister, A Homegrown Economic Reform Agenda: A Pathway to Prosperity, 2020.

exceeding 110 million people. A thriving agricultural sector will not only contribute to economic development but also support the well-being of rural communities and foster sustainable development in the country. The government of Ethiopia has set ambitious targets for the sector in its ten-year development plan including reducing import dependence by half, promoting value addition and agro-processing activities, and creating more jobs and income opportunities for rural households[199]. By pursuing these goals, Ethiopia can unlock the sector's potential and foster economic growth for the benefit of its people.

B. Mining

Ethiopia's mining sector is increasingly becoming an important part of the economy. The country has a diverse and vast mineral potential, including gold, gemstones, tantalum, potash, iron ore, various industrial, energy, and construction minerals and more. The sector has seen an exponential increase in industrial mineral production generating an annual revenue of ETB 407.5 million and export earnings of ~USD 210 million mainly generated from gold, tantalum, and other gemstones in 2020 alone[200]. As a result, the sector contributes to 1% to the GDP, constitutes 14% of exports, and employs over 54,000 people[201].

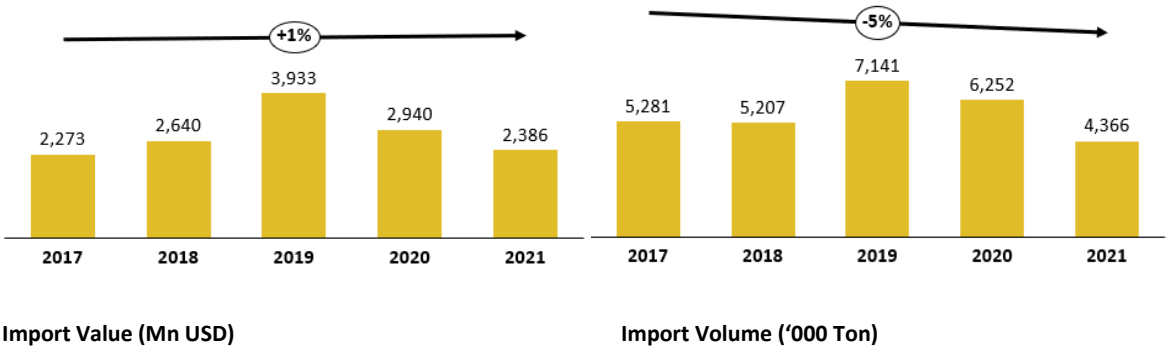
Cognizant of its significance, the government of Ethiopia has been undergoing reforms to create a conductive investment climate and focused on enhancing and sharing geological information to attract foreign and domestic investors[202]. Since the mining sector is still developing, the government has also focused on providing infrastructure and other specific support for building private sectors' trust and confidence[203]. Additionally, the Ministry of Mines has outlined specific reforms to increase the competitiveness of the sector such as the formalization and support of artisanal and small-scale mining, addressing technical and institutional barriers against large-scale mining projects, and developing policies and institutional capacities to create a sustainable and inclusive mining sector with strengthened geological information and diversified product base with industrial input focus[204].

Even though it has substantial potential, one of the defining characteristics of the mining sector in Ethiopia is its import dependence. The growing agriculture sector in Ethiopia has created a significant need for fertilizers and other minerals essential for crop cultivation and harvesting. Furthermore, as urbanization rates continue to rise steadily, there is an increasing demand for construction materials like cement, plaster, iron, and steel. The chemical industry, which is also experiencing rapid growth, relies on various industrial minerals for production. To meet these demands, manufacturers are heavily import dependent due to the nascent mining sector value-chain, incommensurate mineral exploration and processing and inadequate supply of basic minerals such calcium, phosphorus, magnesium, sodium, potassium, chloride and sulfur. Although its cumulative annual growth rate (CAGR) of imports has somewhat stagnated at 1%, the sector's spending was over USD 2 billion[205]. This reliance exposes the sector to external shocks and price fluctuations, leading to higher production

[199] Planning and Development Commission, Ten Years Development Plan 2021 – 2030, 2020.
[200] Ministry of Mines, (http://www.mom.gov.et/index.php/mining/learn-more-about-ethiopias-mining-sector/), 2023.
[201] Ibid.
[202] Planning and Development Commission, Ten Years Development Plan 2021 – 2030, 2020.
[203] Ibid.
[204] Ministry of Mines, (http://www.mom.gov.et/index.php/mining/learn-more-about-ethiopias-mining-sector/), 2023.
[205] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.

costs and diminished competitiveness. Additionally, the import dependency hinders value addition and linkages between the mining sector and other segments of the economy.

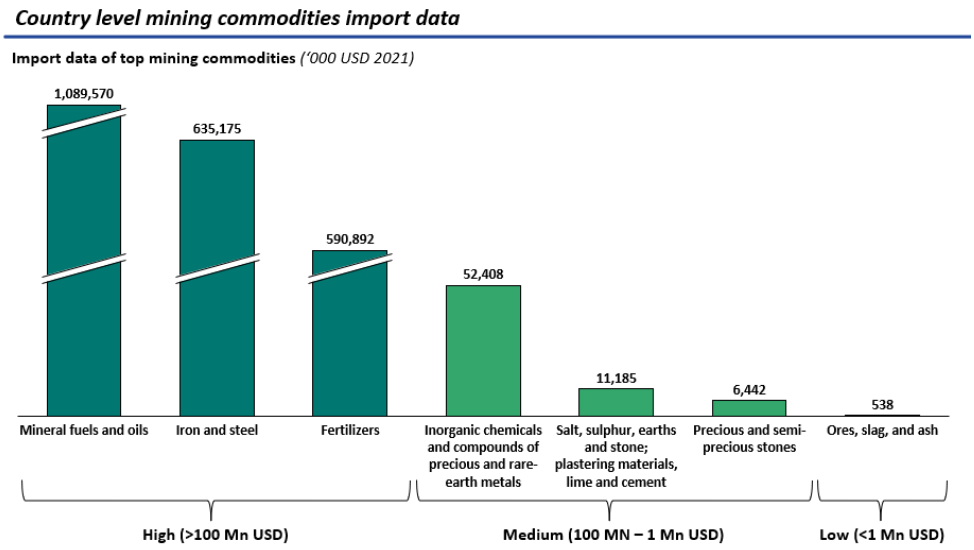
Figure 46: Total import value (left) and volume (right) of mining products, 2021[206]



Import Value (Mn USD) **Import Volume ('000 Ton)**

Looking further into highly imported products, fuel, iron and steel, and fertilizers take the largest share. Around 80% of refined petroleum is mainly imported from Kuwait and the UAE, while coal briquettes are sourced from South Africa (83%) and Russia (17%)[207]. Ethiopia also has significant spending on petroleum coke which is imported from the USA, Oman, Bahrain, and the UAE. Iron and steel imports come from diverse countries, with Turkey supplying raw iron bars, Poland and the UK exporting scrap iron, and China and India leading in iron structures. For nitrogenous and mixed mineral or chemical fertilizers, Egypt and Morocco are the largest exporting countries[208]. This import dependence poses challenges for Ethiopia's economy and highlights the need for developing domestic production capabilities in these sectors.

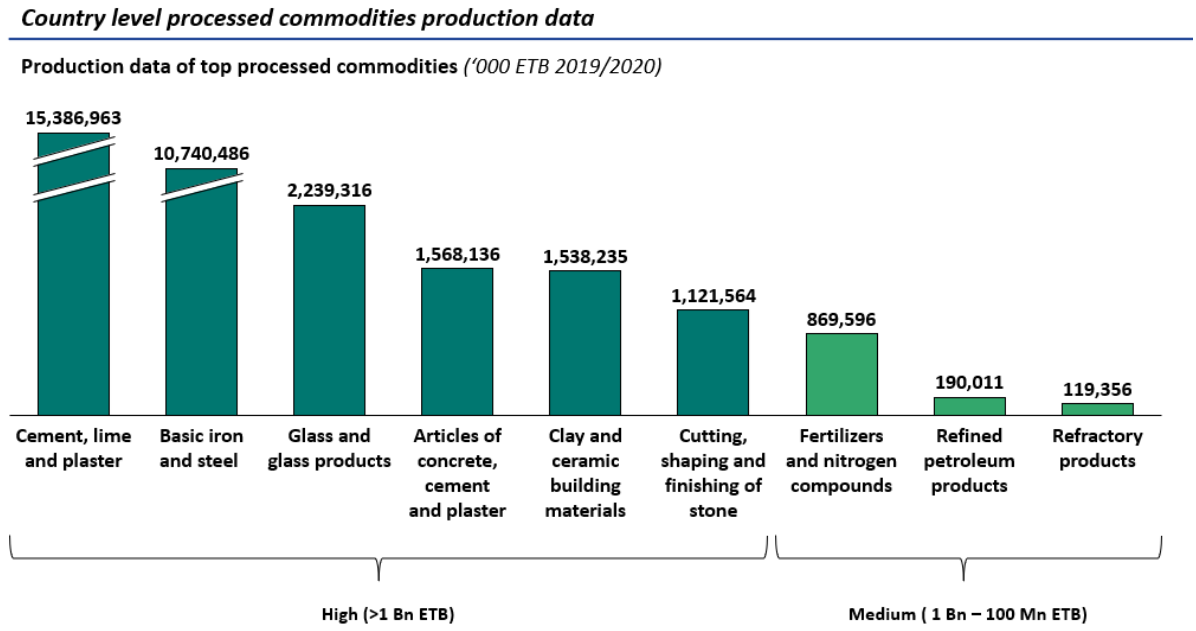
Figure 47: Import data of top mining commodities ('000 USD, 2021)[209]



[206] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022; Note: import figures exclude agro-processing products
[207] Observatory of Economic Complexity – OEC World, (www.oec.world), 2022.
[208] Observatory of Economic Complexity – OEC World, (www.oec.world), 2022.
[209] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.

The mining sector has also seen an increase in the production of some minerals, such as gold, tantalum, and gemstones, while others have declined or stagnated, such as potash, iron ore, and coal. The production of gold, which is the main export commodity of the sector, has increased from 2.9 tons in 2017/18 to 3.3 tons in 2019/20[210]. The production of tantalum, which is used in electronic devices and has a high global demand, and gemstones, which include opal, emerald, sapphire, and ruby, has also grown in recent years[211]. Looking at processed mining goods, cement and articles of cement have a high value of production in Ethiopia exceeding ETB 17 billion combined[212]. The production of basic iron and steel, glass, clay, and ceramic is also growing substantially over the last few years. However, Ethiopia has low production of fertilizer and petroleum and refractory products[213].

Figure 48: Production data or top processed mining commodities ("000 ETB 2019/2020)[214]



Although production trends show positive trajectories, the product baskets also reflect that the types of goods manufactured in Ethiopia are of limited value addition. The mining sector in Ethiopia is primarily characterized by artisanal and small-scale mining (ASM), which faces challenges of low productivity and limited value addition. The growth of the large-scale mining industry has been hampered by factors such as a deficient regulatory framework, inadequate exploration capacity, and a lack of promotion efforts. These factors have contributed to limited exploration of the country's available mineral resources, impeding the sector's overall growth potential[215]. As a result, the country mainly produces raw or semi-processed minerals that have low-value addition and quality. For example, most of the gold produced in Ethiopia is exported as dore bars that need further refining

[210] Ministry of Mines, (http://www.mom.gov.et/index.php/mining/learn-more-about-ethiopias-mining-sector/), 2023.
[211] Ibid.
[212] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[213] Ibid.
[214] Ibid.
[215] Office of the Prime Minister, A Homegrown Economic Reform Agenda: A Pathway to Prosperity, 2020.

abroad. The same applies to tantalum and gemstones that are exported as rough stones that need cutting and polishing abroad.

Nevertheless, the Ethiopian government has placed significant emphasis on the development of specific mineral resources, considering the country's substantial reserves and the potential for import substitution and self-sufficiency. Ethiopia's geology exhibits remarkable promise for exploration and exploitation of these resources. The latest available information reveals that Ethiopia possesses abundant reserves of various minerals, including potash, which is crucial for fertilizer production, as well as cement raw materials like limestone, clay, and gypsum. Additionally, the country has substantial deposits of glass raw materials such as silica sand and feldspar, iron ores utilized in steel production, and precious stones like opal, emerald, and sapphire. Other industrial minerals, including salt, soda ash, and phosphate, also contribute to Ethiopia's mineral wealth. Furthermore, the government has shown interest in developing geothermal energy and natural gas resources within the country. These strategic efforts demonstrate Ethiopia's commitment to harnessing its diverse mineral resources for economic growth and energy sustainability[216].

Therefore, if Ethiopia can effectively address the challenges faced by its mining sector and redirect attention towards its development, there is tremendous potential for the sector to become a source of social welfare and economic stability. The country's substantial mineral reserves, ranging from gold and gemstones to potash and industrial minerals, offer opportunities for import substitution and self-sufficiency. The government's ongoing reforms, aimed at creating an attractive investment climate and providing necessary infrastructure support, reflect the commitment to harnessing the mining sector's potential. With a focus on increasing value addition, promoting large-scale mining projects, and strengthening geological information and capacities, Ethiopia can enhance the competitiveness and productivity of its mining industry. By capitalizing on its diverse mineral resources, Ethiopia can drive economic growth, create employment opportunities, and contribute to the overall development of the country.

C. Pharmaceuticals

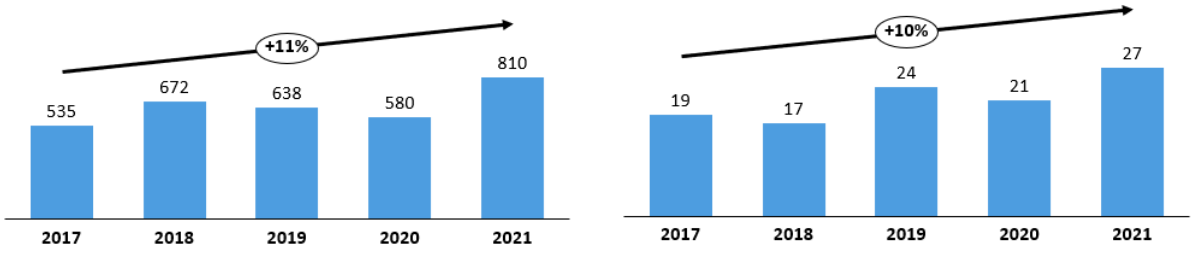
The pharmaceuticals sector in Ethiopia shows promising potential for growth, but it requires due attention to fully realize its capabilities. Currently, the industry is at a nascent stage with a growth rate of 15%[217], which highlights the increasing demand for pharmaceutical products in the country. Steady economic growth, improvements in the delivery of health care, and introduction of social health insurance coverage across the country all lead to growing demand[218]. However, Ethiopia heavily relies on imports to meet this demand, emphasizing the need for the development of a robust local pharmaceutical manufacturing sector.

The import dependency of the Ethiopian pharmaceutical sector has been driven by a growing population and the corresponding increase in demand for medicines. From 2017 to 2021, imports of pharmaceutical goods experienced a Compound Annual Growth Rate (CAGR) of 11%[219]. The major

[216] Ministry of Mines, (http://www.mom.gov.et/index.php/mining/learn-more-about-ethiopias-mining-sector/), 2023.
[217] Ethiopian Investment Commission, 2023.
[218] MoI and MoH, National Strategy and Plan of Action for Pharmaceutical Manufacturing Development in Ethiopia (2015–2025), 2015.
[219] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.

imported pharmaceutical products include therapeutic medicines, vaccines, hormone or steroid-containing medicines, and antibiotics. Ethiopia imports more than 90% of its pharmaceutical products, mainly from India, China, and Europe. The demand for vaccines particularly surged by 218% between 2020 and 2021 due to the COVID-19 pandemic, resulting in substantial spending of over 800 million USD in the sector in 2021[220].

Figure 49: Total import value (left) and volume (right) of pharmaceutical products, 2021[221]

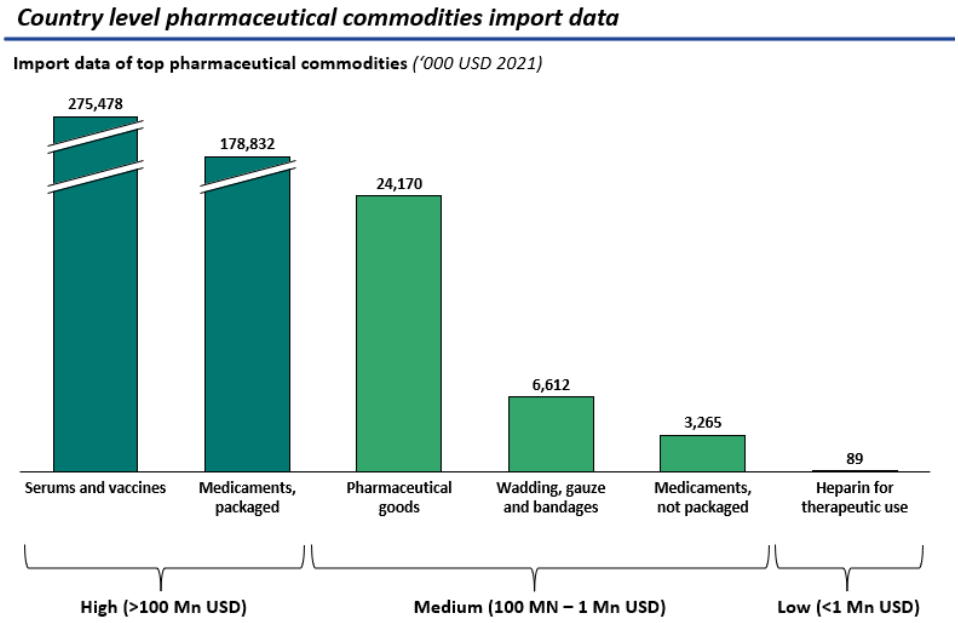


Import Value (Mn USD) **Import Volume ('000 Ton)**

While domestic production of pharmaceutical goods has faced some stagnation in recent years, the sector has a potential to substitute some imported goods. The Ethiopian pharmaceuticals market is valued at ~USD 600 million[222] while Ethiopia produced pharmaceutical products worth only ~ ETB 350 million in 2019/20[223]. This is in part due to most manufacturers operating below their capacities and as a result, supplying only about 20% of the local market. The largest import items in the pharmaceutical sector driving import spending are mainly serums and vaccines, especially in 2021 due to the COVID 19 pandemic, and packaged medicaments[224].

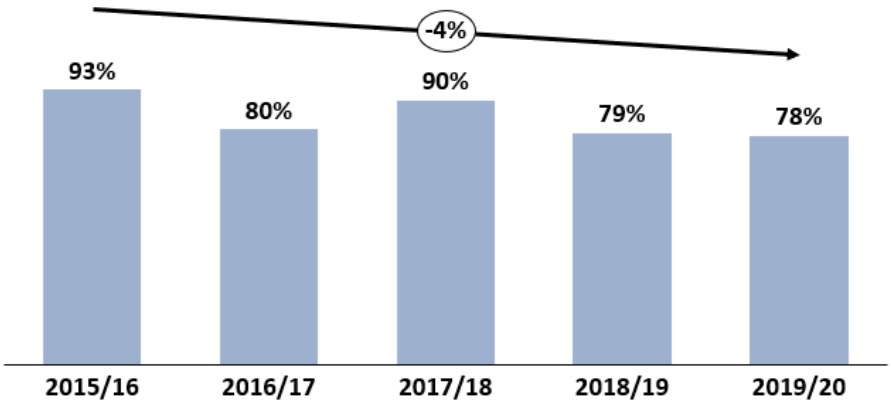
Figure 50: Import data of top pharmaceutical commodities ('000 USD, 2021)[225]

[220] Ibid.
[221] Ibid.
[222] McKinsey and Company, Should Sub-Saharan Africa make its own drugs?, 2019.
[223] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.
[224] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.
[225] International Trade Centre – ITC Trade Map, (www.trademap.org), MoI Analysis, 2022.



Based on domestic production trends, the sector still has the potential to substitute imports of packaged medicaments[226]. Domestic producers have limited product portfolios but are able to supply 129 products on the essential medicines list with a push to expand into antibiotics, antipains, and anthelminthics[227]. In addition, even though imports in the pharmaceutical industry are rising while production has stagnated, manufacturers' dependence on imported inputs is also declining demonstrating promising prospects for the expansion of the sector.

Figure 51: Ratio of imported goods to the total raw material cost of pharmaceutical establishments (in %, 2019/2020)[228]



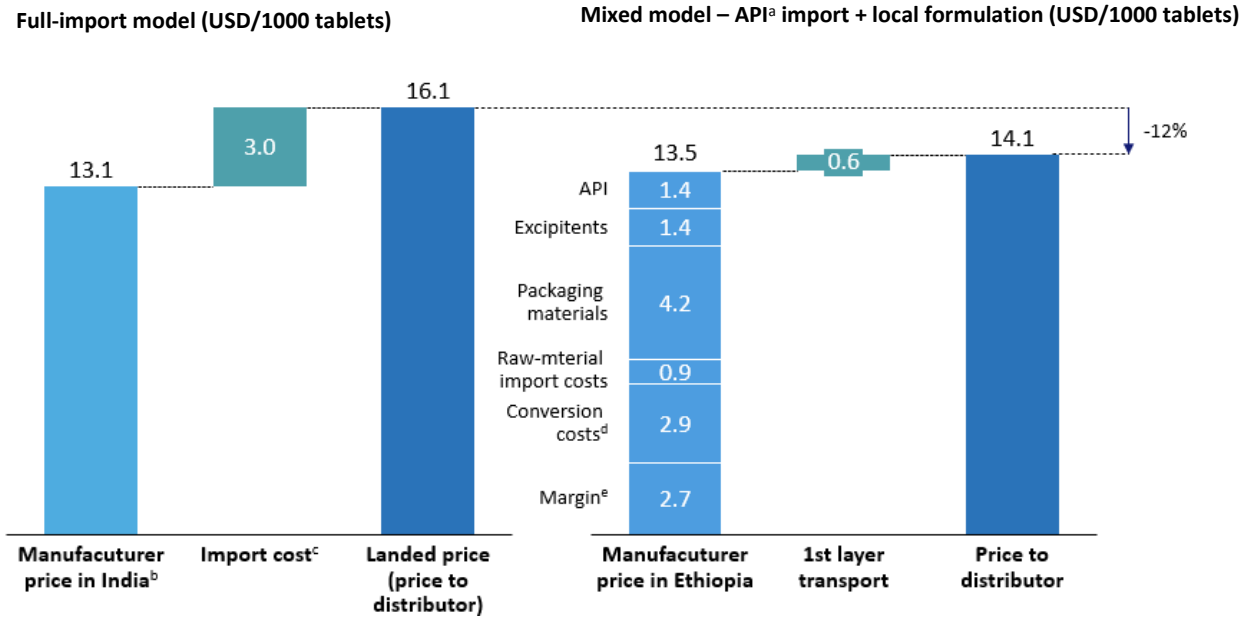
There are approximately 11 pharmaceutical industries engaged in large-scale manufacturing of generic medicines in the country. The government has shown dedication to the development of the sector through initiatives such as the establishment of the Kilinto pharmaceutical industrial park (KPIP) and the formulation of a 10-year national strategic plan of action (ASPA) for pharmaceutical

[226] Dalberg Advisors, Ethiopian Subsector Analysis – Chemical and Pharmaceuticals, 2021.
[227] Ibid.
[228] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020.

manufacturing[229]. The focus of the NSPA-Pharma strategy is a result of most of the Ethiopian pharmaceutical industry actors being heavily concentrated in the value chain, with over 200 importers, wholesalers, and distributors of finished pharmaceutical products.

With this growth, Ethiopia is well-positioned to manufacture pharmaceutical goods to bridge the gap between the high demand and low domestic supply. A study conducted by McKinsey and Company highlighted the potential of the sector to contribute positively to Ethiopia's trade balance. The study demonstrated that although Ethiopia has a limited production of pharmaceutical inputs, importing raw materials for domestic production of pharmaceutical products could result in significant price reductions compared to the marked-up prices of imported goods. For instance, comparable plants manufacturing an over-the-counter drug revealed that producing the drug locally, despite importing raw materials, would lead to lower import costs due to the relatively low value of these materials. This, coupled with lower transport costs, would make the locally manufactured product more affordable within the local supply chain compared to imports[230].

Figure 52: Pharmaceutical manufacturing competitiveness vs. imports, 2019[231]



Although it shows positive characteristics overall, the Ethiopian pharmaceutical industry also faces significant challenges. Foreign exchange shortage causes significant challenges in importing machinery accessing spare parts and performing maintenance and purchasing raw materials

[229] Selam, M.N, et. al., Local pharmaceutical research and development capacity in a developing country: a qualitative exploration of perspectives from key stakeholders in Ethiopia, Journal of Pharmaceutical Policy and Practice, 2022.
[230] McKinsey and Company, Should Sub-Saharan Africa make its own drugs?, 2019.
[231] Ibid.
Note: The analysis was done for 1 over-the-counter drug in Ethiopia; the economics of other drugs may vary.
[a] Active Pharmaceutical Ingredient; [b] Per clean-sheet model; [c] Includes freight: 10%; duties: 5%; and value-added tax: 5% of API value; [d] Includes direct labor, testing, facility, equipment, and overhead costs; [e] Margin for local manufacturers ~20%.

necessary to support the pharmaceutical industry[232]. Limited infrastructural capacity such as power interruption and human capacity due to a lack of skilled technicians, engineers, and scientists trained in pharmaceutical technology and production also hinder the production potential of the industry. Lastly, heavy reliance on imports of APIs, excipients, and packaging limits the competitiveness of the sector[233].

In conclusion, even through the several challenges the industry faces, the Ethiopian pharmaceutical sector is a dynamic and promising industry that can contribute to improving health outcomes and economic development in the country. By focusing on local pharmaceutical manufacturing, the government can reduce import dependency, enhance access to affordable medicines, stimulate economic growth, and address the booming demand for pharmaceutical products in the country. According to McKinsey and Co., if Ethiopia were to increase its local share of production from roughly 15% to 20% to around 40% to 45%, it could expect to see an improvement in its trade balance by USD 150 million to USD 200 million annually[234]. Additionally, the cosmetics sub-sector offers investment opportunities and further diversification within the healthcare industry in Ethiopia.

[232] MoI and MoH, National Strategy and Plan of Action for Pharmaceutical Manufacturing Development in Ethiopia (2015–2025), 2015.
[233] EIC, Development of a pharmaceutical industry in Ethiopia, 2016.
[234] McKinsey and Company, Should Sub-Saharan Africa make its own drugs?, 2019.

5 SECTION IV

5.1 Sub-sector Challenge Identification

5.1.1 Food and beverage sub-sector

Inadequate backward and forward linkage resulting in production inefficiencies and capital insolvency, making local manufactured F&B products uncompetitive in the domestic market. The food and beverage sub-sector has been prioritized to lead the country's structural transformation for a broad-based economic growth[235]. To ensure the growth, one of the most important features of any industry is the degree to which it can generate demand for the products of other industries. Although the demand for agricultural inputs is high, processors operate below capacity at an average of 40% (at times as low as 18%), due to shortage, inconsistent, sub-standard supply of agricultural raw materials[236]. For e.g, flour mill plants enter manufacturing relying solely on the subsidized government wheat import. Moreover, most manufacturers are engaged in only primary value adding activities with limited production of goods further down the value chain[237]. With the introduction of soybeans into the Ethiopian Commodity Exchange (ECX), local edible oil factories that use soya as input also have not been able to obtain the input, due to which there is a limited production of edible oil as refineries face shortages[238]. Even though the effort is a breakthrough for soya bean producers, the agriculture sector needs to focus on supplying the local market and domestic manufacturers as well instead of only export focused production.

Unreliable supply of critical infrastructure such as power, transport, and cold-chain facilities are increasingly affecting productivity and quality. The average power demand of the industry ranges from 25 KW to 5000 KW, with varying problems encountered by different industries. However, the manufacturers incurred additional costs such as worker fees, generator diesel costs, maintenance and repair expenses, equipment replacement costs, backlog expenses, cleaning and machinery readjustment costs, in-process inventory, and product wastage due to supply shortage - the industries are finding it difficult to remain competitive and sustain their operations. Major electric power and related issues that are currently affecting these industries include continuous fluctuations of power, voltage drops, power supply, and transformer-related problems.[239] A cereal and oil mapping study conducted by the Food and Beverage Industry Research and Development found that on average, flour and flour product factories have 79.37% KW electric power availability. Similarly, limited availability and unaffordable ambient and cold chain transport especially for domestic market manufacturers increases cost of production delivery time. Cold storage infrastructure coverage is low as compared with other peer countries resulting in a 15% price jump for juice products for example making the product uncompetitive domestically and in the international market[240]. This is just one example where local products are increasingly uncompetitive compared to an imported orange juice from the middle east that uses the local cold chain that is available.

[235] Tesafa F., Forward and backward linkage analysis of manufacturing industries in Amhara Region, Ethiopia, 2014.
[236] Chiu, R.H. and Yu-Chang, L., Applying Input-Output Model to Investigate the Inter-Industrial Linkage of Transportation Industry in Taiwan, 2012.
[237] EIC and ATA, Ethiopia's Food and Beverage Processing and Auxiliary Industry Strategy, 2020.
[238] Zerihun, A., Industrialization policy and industrial development strategy in Ethiopia, 2008.
[239] Desalegn Amenu Delesa., Standards related foods and food products, 2018.
[240] EIC and ATA, Ethiopia's Food and Beverage Processing and Auxiliary Industry Strategy, 2020.

Due to the inadequate supply and high costs of packaging materials, manufacturers market competitiveness and profit margins is affected, reducing shelf life[241]. The quality of packaging contributes 25% to the competitiveness of products in this steadily evolving agro-processing industry. In Ethiopia, various industries use different types of packaging materials such as pp bags for wheat flour, cartons for macaroni, pasta, and biscuit factories, and aluminium paper and film. However, except for cartons and pp bags that sourced from local factories, the rest such as film and aluminium paper are imported. Although Ethiopia produces about 25-30% of the country's packaging demand, packaging is still a key cost driver in the sector's competitiveness. Most medium to large-scale processing plants have adjacent packaging facilities to manufacture packaging materials. However, packaging is plagued by several challenges, including the fact that all inputs to make packaging are imported and require access to forex, which limits the consistency of imported inputs.

Lack of skilled manpower - poor wages, limited performance recognition exacerbates labour productivity leading to turnovers, absenteeism, and poor working culture. One of the major challenges in finding skilled workers is that they lack practical skills when hired straight from educational institutes. Only 59.3% of unskilled employees have completed high school, and only 4.46% of food processing facilities apply food safety and quality certification[242]. Processors invest their limited resources for on-job hard and soft skill trainings to increase productively, however unyielding due to the systemic nature of the labour market challenge[243] - and this is only possible for large scale manufacturers who have the resources to do so.

The agro-processing sector faces challenges in accessing working capital due to the perception of high risk by banks, poor financial sector liquidity, and lack of knowledge in assessing agricultural risk. Lack of financial sustainability and stability and inability to meet collateral requirements also limit access to credit. Additionally, Ethiopia's lack of foreign currency reserves leads to currency controls that limit imports of inputs and packaging, increasing costs and reducing competitiveness[244].

The lack of market facilitating institutions and weak information and regulatory systems have resulted in an absence standards and price instability. Non-compliance with international regulations is reducing farmers' incomes, limiting investment in contract farming opportunities to expand agro-processing industries[245]. Without product standards, it is difficult for buyers to assess a market price per the quality of goods as they assume a risk for products without a grade leading to high farm gate premiums and reduced farmer earnings. Middlemen serve as de facto standard authority through the informal trust established with wholesalers to assure product quality[246]. The Ethiopian Standards Institute is responsible for formulating national standards but lacks capacity to apply the formulated standards due to lack of food safety management systems and quality testing laboratory services for residue testing to evaluate food safety standards, leading to reduced trust from buyers[247]. To address these challenges and promote agro-food industrialization, it is important to establish standard laboratories, certification bodies, and mobile food processing and testing units, which can reduce

[241] Ibid.
[242] Food and Beverage Industry Research and Development Centre, Cereal and Oil Mapping Study, 2022
[243] Tekeba E., Ethiopia's Manufacturing Industry Opportunities, Challenges and Way Forward: A Sectorial Overview, 2018.
[244] Ibid.
[245] Ibid.
[246] Desalegn Amenu Delesa, Standards related foods and food products, 2018.
[247] Food and beverage industry research and development centre cereal and oil mapping study, 2022

costs and delivery times for food quality testing services and enable efficient use of processing and laboratory professionals even in remote locations[248].

Finally, limited understanding of tax duties and responsibilities, and inefficient tax collection and clearance systems are limiting the profitability of small-scale manufactures. There are various tax incentives available to investors and manufacturers, but there is a lack of equal understanding of taxation duties and rights among businesses, leading to unfair competition. For instance, most large-scale companies buy raw material with VAT registered companies and flour milling industries collect withholding tax or turnover tax from suppliers. However, most small-scale companies do not collect turn over tax due to limited understanding of their duties and rights as taxpayers which leads them to be subject to double taxation[249].

5.1.2 Textile and apparel sub-sector

Due to unbalanced investment along the textile and apparel manufacturing value chain, there is a severe lack of backward and forward linkages in the textile and apparel sub-sector. Most garment factories are forced to import finished fabrics and other accessories to fulfil their demand. The value addition of these garment factories is low as their main function is limited on CMT (cut, make, and trim) hindering the opportunity to grow upstream (fibre and textile) investment but also increases burden on foreign currency problems[250]. Aggressively pulling new investments with latest technology from upstream textile side will automatically force garment factories to use their production capacities by producing excess garment inputs with good qualities.

Inadequate raw material is the other key constraints for the textile manufacturing sub-sector. There is about 3 million hectares of suitable land in Ethiopia that is available for cotton cultivation, however, only about 75,000 hectares are under production and used in the textile industry[251]. In addition, despite some level of cotton production, due to the limited attractiveness of the product compared to other agro-processing industries, unavailability of sufficient inputs and limited access to finance for irrigated cultivation, the industry is not expanding to its potential[252]. As a result, about half of the raw materials consumed by textile industries are reportedly imported[253].

Besides cotton, Ethiopia is also heavily importing synthetic textile products or blends of them which are highly demanded due to their relative costs and durability advantages that are locally not produced. Nearly 10% of textile import value is a share of these synthetic products excluding finished garments[254]. Looking at the performance of the textile sector in the last five years (2017 – 2022), Ethiopia has been importing textile products of nearly USD 500 million annually compared to USD 145 million average annual in exports within the same period, which shows a trade deficit of over 70%[255].This indicates that, if problems related to raw material supply is solved either by importing them at the very initial stage as they have high potential of value adding yet Ethiopia is not able to

[248] Azime A. Hassen., Agricultural taxation and economic growth in Ethiopia, 2016.
[249] Ibid.
[250] ETIDI, Cotton and textile industry sector development 10 years strategic plan, 2020
[251] ETIDI, Cotton Development and Textile Industry 10-year roadmap (2020/21-2030/31), 2020
[252] MoTI, Ethiopia Textile and Clothing Value Chain Roadmap 2016-2020, 2015
[253] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020
[254] ITC Trade Map, Yearly time series data, 2017-2021; MIDI Analysis
[255] TGIRDC, Textile and Apparel Import Substitute Product Identification and Analysis of Trade Balance, 2022

produce them within a short period of time, or producing domestically, there will be considerable amount import substitution at each stage of the value chain.

The size of the auxiliary inputs market is also small, and most buyers import their non-fabric inputs (e.g., zippers, buttons, cartons, etc.) from well-established accessory producers abroad[256]. Local auxiliary input providers do not manufacture high quality products that have similar standards to those that are imported. Moreover, since these industries are sensitive to buyer presence as they require high buyer concentration for adequate returns on their investment, the Ethiopian market has also not been attractive for FDIs in the past[257].

Ethiopia's textile and apparel sector also suffers from a lack of sufficiently skilled technicians, specialists, leading to lower productivity and quality. Despite the presence of large labour size, limited skill inhibits the ability of the sector to add value, meet buyer requirements and increase profitability[258]. Although there are numerous universities and TVETs that specialize in textile and apparel, the institutions find it difficult to prepare students in accordance with the industry's requirements, due to the weak linkage between universities and TVETs, the training does not adequately reflect the demands of the sector[259]. In addition, the training provided by these institutions is theoretical, limiting the required practical experiences of the graduates that enter the labour market[260].

In addition to skill gaps, the technologies which are available are not quite well to produce imported goods. Ethiopian ginneries are producing 12% less cotton lint when compared with West and Central African countries[261] as a result of old and outdated equipment, low financial capability to invest in new equipment, lack of quality standards and processes, and underutilization of existing facilities[262]. Except for new investments, textiles are masked with out-dated technology and systems[263]. This is caused by the heavy capital investment required in the textile and apparel subsector, hindering the sub-sector from importing new machinery and equipment which makes it difficult to adopt new technologies and remain competitive. Moreover, the government incentive to import machinery duty-free is only available in the investment establishment phase, after which manufacturers are charged on machinery and spare part imports[264]. So, to realize import substitution it is needless to mention the importance of attracting big investments with the latest technology and production system and implement holistic incentive by considering the life of cycle of manufacturing industry.

Ethiopian textile and apparel sector manufacturing has been affected by inefficient government support and bureaucratic regulatory. For import substitution, quick service delivery and timely communication are vital to attract new investors and sustain the existing operators. But the Ethiopian

[256] EIC, MoTI, ETIDI, Realizing New Productive Capacity in Ethiopia's Textiles and Apparel Sector: Strategy and Policy Recommendations, 2018
[257] Ibid.
[258] MoTI, Ethiopia Textile and Clothing Value Chain Roadmap 2016-2020, 2015
[259] Ibid.
[260] Ibid.
[261] MoTI, Ethiopia Textile and Clothing Value Chain Roadmap 2016-2020, 2015
[262] EIC, MoTI, ETIDI, Realizing New Productive Capacity in Ethiopia's Textiles and Apparel Sector: Strategy and Policy Recommendations, 2018
[263] ETIDI, Cotton and textile industry sector development 10 years strategic plan, 2020.
[264] Exemption from customs duties and other taxes (VAT, sur tax, withholding, and excise tax) on imported capital goods are available upon the establishment of a new enterprise or expansion/upgrading of existing one per the 2012 Investment Incentive and Investment Areas Reserved for Domestic Investors Regulation No. 270/2012

government bureaucracy is suffering from a backward quality service delivery system of facilitating regulations and implementing different incentives. As briefly discussed in the Leuven University Press research document, core public management systems at the federal and regional levels were hampered by outdated civil service legislation and working systems, the absence of a medium-term planning and budgeting framework, ineffective financial and personnel management controls, inadequate civil service wages and inappropriate grading systems, poor capacity for strategic and cabinet-level decision-making, and an insufficient focus on modern managerial approaches to service delivery[265]. Although it is true that there are outdated civil service regulations, effective and efficient ones are still not applied properly. The poor governmental bureaucracy reflected on financial support and bank loans, implementing incentives, land leasing, custom services and power supply systems can be mentioned as a few examples among government services with huge limitations.

As a strategy to attract FDI, Ethiopia offers a number of incentives (both fiscal and non-fiscal) for industrial park tenants and for manufacturers involved in exporting; however, some incentives are not targeted, and their effects cannot be measured. These incentives are the result of a joint effort of different government stakeholders. Although incentives are meant to achieve a set of policy objectives, these objectives are broad and difficult to tie to specific policy targets for incentives, measuring whether the incentives achieve national objectives is difficult. There is no existing culture of evidence-based cost-benefit evaluation of the effectiveness of current incentives; incentives are not tied to specific operational challenges faced by investors or to the degree of performance relative to national targets[266]. Therefore, if similar import substitution incentives would be developed, similar challenges are expected to happen. To develop and implement an effective import substitution strategy or incentives scheme, lessons have to be learned from export incentives limitations not to repeat those mistakes. Generally, a research study has revealed that Ethiopia's export earnings from goods export shows growth as a result of export incentives[267]. Indeed, there is no known incentive scheme for domestic production aside from export-oriented manufacturers. Therefore, developing new incentive scheme will be vital to attract new investments, to promote manufacturer importers and manufacturers focusing on import substitution or has a potential for import substitution.

Although there is a market regulation proclamation, Proclamation No. 329/2003, that is supposed to promote local production of goods with free market principles, the government has not been able to implement the proclamation due to poor execution. Parallel to legal traders or manufacturers, the number of actors in the black market are large - textile and apparel commodities have a considerable share in tradable commodities in the black market. The proclamation was prepared to establish a system that is conducive for the promotion of a competitive environment, by regulating anti-competitive practices in order to maximize economic efficiency and social welfare. In the proclamation, it is stated that the importation of any goods from any foreign country into Ethiopia at a price less than the actual market price or wholesale price of such goods in the principal markets of the country of their production with the intent to destroy or injure the production of such goods in Ethiopia or to restrict or monopolize any part of trade in such goods is an act anti-competitive practice

[265] Leuven University Press, Public Administration in Ethiopia: Case Studies and Lessons for Sustainable Development, 2020.
[266] EIC, MoTI, ETIDI, Realizing New Productive Capacity in Ethiopia's Textiles and Apparel Sector: Strategy and Policy Recommendations, 2018.
[267] Gemeda, Aynalem Bekele., Export Trade Incentive Schemes Nexus Export Performance in Ethiopia, 2020.

and should be forbidden[268]. Though the content of the proclamation addresses the market issue at hand, it is difficult to execute and bring change at a higher level duly for lack of implementation capability in the executing commission as the main regulatory body to the dimension and level of illegal trading – the Commission still exists on the proclamation, the roles is currently scattered and lodged under different commissions and agencies. Therefore, establishing and restructuring the role is needed to bring better change and influence import substitution.

Limited and skewed incentive and infrastructure allocation are major constraints limiting domestic investment in the textile and apparel sub-sector compared to FDI attraction: Most of the domestic investors are focusing on service sectors fearing the hurdles of manufacturing sector. Indeed, the problems that are raised from logistics, production, market, etc. could be taken as serious issues in manufacturing overall. So, with the limited industrial culture and manufacturing skill, those challenges FDIs' facing remain a tougher challenge for domestic owners to be involved in a very competitive and dynamic international market. If the government remains committed in import substitution, considering and engaging domestic investors in textile and apparel sector could be taken as serious issues in parallel with attracting FDIs. It is known that there are many opportunities for domestic investors in sourcing workforce, profitable local market (from 10-20% as compared to 0-2% in exports), low level of environmental compliance, relatively low quality of products compared to export, low costs of commodities like water and electricity and the fact the sector is still considered "infant" and can only mature from this point[269]. As discussed above, to promote and attract more domestic investors in textile and apparel sector, major challenges related to logistics, communication, custom processing, banking, foreign currency etc. must be improved and able to serve in favour of the manufacturing sector. Even import substituting manufacturers may not be totally free from involving in international trade system where efficient and effective logistics are expected to be provided. So far, the cost of Ethiopian logistics is not preferable as compared to other nations. As a comparison: a 20ft container in Bangladesh would cost an average of USD 1800 which is USD 800 less than in Ethiopia, the average transit time for Ethiopian estimated about 6 weeks as compared to other nations that is 4 weeks[270]. In addition to logistics local textile and apparel industries have limited access to finance due to low liquidity in the banking sector and high perceived risk of the sub-sector, resulting in high interest rates (where government banks provide lower rates nominal interest rates of 9% - 11.5%) and private banks charge rates as high as 18%) and long loan approval durations where local manufacturers wait up to 6 months or longer for loan approvals from state banks largely due to the lengthy processes[271]. Customs clearance is also slow and lacks efficiency and standards as 77% of the time required to trade across borders is needed for document preparation, customs clearance, and inspections.

The attitude problem towards local products consumption is the other key challenge for textiles and apparel import substitution. Several literatures indicate consumers in developing countries prefer imported products more that domestic products, particularly in African countries. Looking at the trend, Ethiopia's manufacturing industry performance is not promising because of lack of demand for

[268] Trade Practice Proclamation, Proclamation No. 329/2003

[269] Business Opportunity Report, Ethiopia Textile & Apparel Industry; Netherlands Embassy in Addis Ababa CBI, centre for the promotion of imports from developing countries, part of the Netherlands Enterprise Agency,

[270] Ibid.

[271] EIC, MoTI, ETIDI, Realizing New Productive Capacity in Ethiopia's Textiles and Apparel Sector: Strategy and Policy Recommendations, 2018

locally produced goods. The import trade has been increasing while the export has been stagnating despite the government's ambitious plan to increase export and to decrease import - the share of formal employment in overall manufacturing employment is as low as 6% in Ethiopia[272]. Many manufacturing enterprises are challenged by lack of demand in the local market while similar products imported from developed and emerging countries enjoy sufficient demand due to lack of demand for manufactured products is the major reason to operate below capacity[273]. Major identified factors which affect consumers' attitude towards domestic products in developing, particularly in African countries are: consumer ethnocentrism (consumers prefer products from their country to products from other countries in order to increase their self-esteem by being patriotic), consumer xenocentrism (consumers preference of imported products to domestic products feeling that purchase of the later one decreases self-esteem), status consumption (purchase of products which are not affordable to the lower class or are not accessible even in their class), consumer knowledge and consumer cosmopolitanism (consumers' global citizenship and a feeling to purchase products from various sources). Improving the attitude of consumers towards domestic products in such countries including Ethiopia may increase competitiveness of the manufacturing industries[274].

5.1.3 Leather and leather products sub-sector

Due to poor handling and collection processes, the Ethiopian leather and leather products sub-sector suffers from poor-quality of raw hides and skins. Inappropriate management of animals, faulty slaughtering, and improper handling of hides and skins before reaching the tannery[275] have resulted in poor quality production. The main source of RHS to tanneries are households that slaughter in their backyards with traditional methods while abattoirs make up only 30% of hides and 10% of skin supply to tanneries[276]. As a result, the RHS are extremely flayed, gauged, deformed, and poorly preserved resulting in limited usability while the scattered nature of the households also leads to difficulty in aggregation and thereby low collection rates[277]. This in turn leads to poor quality of finished leather with limited cuttable areas and scarcity in footwear and leather goods due to scarcity in production inputs.

The limited availability of domestically produced chemicals leads to import dependence requiring foreign currency which is difficult to secure in addition to increasing the cost of production. Since the tanning industry is chemical intensive, more than 95% of leather processing chemicals are imported. This dependence on imports leads to increased costs, lead times, stock, and working capital capacities as well as the need for foreign exchange access[278]. The decline in the provision of hard currency has significant impact on sustainable leather production, quality, as well as increasing finished leather cost[279].

[272] Kibret, Abiot Tsegaye and Shukla, Amit; Factors Affecting Consumers' Attitude towards Domestic Products in Developing Countries: A Conceptual Paper, 2019
[273] Ibid.
[274] file:///C:/Users/n.alemu/Downloads/Researchwork.pdf
[275] MoI, Ethiopia Leather Sector Value Chain Strategy (2016-2020), 2016
[276] Ibid.
[277] MOTI, EIC, and EIDI, Creating New Productive Capacity for the Leather Industry: National Leather Roadmap, 2018
[278] Research Report, The Ethiopian Leather and Leather Products Sector: An Assessment of Export Potentials to Europe and Austria, 2019
[279] MoI, Ethiopia Leather Sector Value Chain Strategy (2016-2020), 2016

Lack of technology and skills to produce hides and skins also limit the quality of production and output varieties of local tanneries. Since leather is fashionable commodity, specialization and product diversification enable the industry to attain and maintain the market demands. There is lack of equipment and skills to diversify as such which limits the variety and quality of finished leather, decreases the value of the products, and affects delivery time. This limits the quality and diversity of products and the range that can be offered to potential buyers[280]. With weak FDI technology spill over and weak technology absorption by domestic firms, domestic suppliers of leather and leather produces are increasingly uncompetitive[281].

Limited manufacturers and supply of accessories and components for footwear producers in the value-chain is a two pronged challenged – finance and investment. Import is the only source of accessories and components supply in Ethiopia supplied by limited importers, with delayed delivery time and a stretched intermediary augmenting cost. This limits product design or in style, product quantity, customer satisfaction, and results in decreasing local demands. For example, moulds, sole, last, and other accessories, and components – basic input for the sector are not produced locally relying on the availability of forex. It is difficult to compete with the sophisticated and fast changing design of footwear and leather goods due to the poor ability to develop attractive designs and lack of technology and resources for domestic manufactures and compete with imported footwears [282]. Driven by the limited production of accessories and components, firms also lag behind in producing goods with trendy designs and styles. Manufacturers also produce low volumes of their product because of low-capacity utilization, poor technology, and limited investment. Therefore, most companies are order based manufacturers and their market is limited by the customer[283]. The more general problem of limited working capital availability including delays in credit disbursement is also a major contributor for limited value-chain players in the value-chain.

Limited product diversification and marketing to expand market share due to capacity and negative attitude towards local products. Domestically produced footwear are promoted with only a handful of companies (e.g., for instance, Anbessa, ELICO, Ramsey, Peacock, and Kangaroo shoe) making products to stock and marketing products through their own outlets nationally. Firms are not developing strong and long-lasting relationships with domestic buyers as 90% of manufacturers have not implemented branding, marketing, or sales strategies to build their competitive advantage in the local domain[284]. Most companies do not follow modern marketing strategies reflected by the absence of marketing departments[285]. This has resulted in very low market demand for domestic goods while there is high demand for imported products with the society having negative attitude towards local products. Domestic markets are more prone and accustomed to the narration that "import is better". This issue is not only the observed in the general public, but with government procurements which lean towards sourcing from abroad than contracting from local producers and suppliers. This further intensifies

[280] MOTI, EIC, and EIDI, Creating New Productive Capacity for the Leather Industry: National Leather Roadmap, 2018
[281] Ibid.
[282] Design Related Challenges of the Ethiopian Leather Footwear Manufacturing Industries and possible areas of Interventions, 2018
[283] Challenges and mitigation taken from manufacturer through workshop discussion
[284] MOTI, EIC, and EIDI, Creating New Productive Capacity for the Leather Industry: National Leather Roadmap, 2018
[285] Ibid.

contraband and informal markets that are not well-controlled that consumers prefer as they provide access to imported brands for lower prices which distorts the market for domestic goods.

Fragmented clusters and associations across the value chain where leather and leather goods producers are scattered result in poor economies of scale, linkage, and price challenges for domestic manufacturers. There are few leather sector enterprises which are working in cluster that earlier times. For instance, EIFCCOS (Ethio International Footwear Cluster Cooperative Society) is one of the prominent footwear associations which aim to work together and are given common shed, machines, and working capital as part of facilitation of the enterprises. But the enterprises are not able to carry out their day-to-day activities as planned. This is due to several reasons. First, the cluster formation lacks a proper structure as several institutions and stakeholders are handling the clustering effort creating inconsistency. Secondly, in addition to the institutional mandate related constraints, technical and economic constraints have also limited the formation of sustainable enterprises and clusters. Thirdly, the clustering systems applied in Ethiopia is not attractive to local or international buyers because they are placed separately operating in silos and are not capable to deliver orders on time that requires a congregated aggregation and production approach. Horizontal linkage between manufacturers producing similar goods is lacklustre leading to diseconomies of scale. There is also land misuse by manufacturer side - there are circumstances where enterprises use land for other purposes than for leather and products processing. And lastly associations are not structured by production capacity, value-chain, or products – rather by kinship. This limits the ways in which associations can solve specific issues they are facing as the challenges vary across product types, value chains, and scale of enterprise.

5.1.4 Chemical and construction inputs sub-sector

The limited availability of working capital and foreign exchange is one of the main challenges identified as having a negative impact on the sub-sector, especially for sourcing inputs and equipment to support operations. The government restricted the outflow of foreign exchange due to rising domestic inflation. Due to these restrictions, manufacturers' access to forex is limited and has resulted in shortages of raw materials, equipment, and spare parts[286]. The chemical and plastic and rubber industries are especially dependent on imported inputs ranging from 70% to 99% of total cost of raw materials[287] mainly due to the underdeveloped mineral sector to supply raw material. According to CCIIRDC, unrest in mining areas made local input sourcing unsecure and is deterring manufacturers from investing the sector. Poor quality and outdated raw materials use is also not well monitored leading usage of potentially hazardous materials; the recent ban on lead compound and DDT is an example of this issue. Additionally, as the sub-sector is considered a high-risk by banks, access to credit to support operations is also limited[288] with most industries operating below capacity (e.g., ~65% in the chemical sub-sector[289]).

Lack of power and constant power interruption are major challenges both for newly implemented as well existing industries. As an intensive energy consuming manufacturing, power interruptions

[286] CCIDI, Chemical and Construction Inputs Industry Development Institute 2013 – 2022 E.C. Strategic Plan (Amharic), 2020
[287] Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry, UNIDO, 2019
[288] Ibid.
[289] Central Statistical Agency, Report on Large and Medium Scale Manufacturing and Electricity Industries Survey, 2020

limit C&C products manufacturing from utilizing their full production capacity affecting the quality of the final products. As highlighted by manufacturers across the sub-sector, industries are forced to use generators driving up production – augmented by growing prices of oil and lubricants, which is later absorbed in the prices of the final products leading to increased downtime reflected in the final consumer prices impacting competitiveness[290].

Similar to the other industries, the chemical and construction input sub-sector also suffers from lack of skilled labor and up-to-date technologies. Throughout the industry, a large number of low-skill machine operators lack basic skills in chemistry, polymer science, and mathematics, all of which are becoming increasingly important, yet certain segments of the industry appear to have minimal commitment to training. Especially due to the complexity of the industry compared to the light-manufacturing sub-sectors, as it progresses down the value chain, production requires sophistication and technical capabilities for which the skill base is currently insufficient. Both public and private TVETs have failed to link education and training with the skills and quality of skills required by the labour market[291] leading to limited productivity and quality of products. Further, technology and innovation are considered a cornerstone for the growth of the chemical industry's growth and a prerequisite for its long-term sustainable performance[292].

Nascent research and development due to limited human and institutional capability hindering value-addition and innovation. Lack of indigenous technology generators (academic, research and development institutions and laboratories) are major shortcomings adversely affecting competitiveness[293]. For the country's economic growth, the advancement of research and development activities in the chemical and construction inputs sub-sector is mandatory but laboratory facilities are not well organized and fulfilled in most industries to effectively utilize local manpower potential.

Unaligned priority across government structure. The chlor-alkali potential sat and natural gas resource in Afar region, the natural rubber potential in Benchi-sheko area, ethylene potential in Somali region, natural gas and can showcase the potential of the sector and can be turned into key investment projects however it is not a priority in the government export and job creation industrialization agenda[294]. Yet, besides the lack of access to finance, the government does not prioritize the industry for land allocation for large investment and does not provide incentives for new investors, even if they are operating in the development of new products, although the industry requires investment in production facilities and procurement of capital-intensive technical equipment to improve productivity and quality. It might be difficult to show the land allocated to C&C manufactures in Ethiopia, but the industrial parks and clusters developed nationwide have limited C&C manufacturing enterprises.

Poor attitude toward local products preferring to purchase imported products even at higher prices. Manufacturers able to produce quality products have not been able to access market opportunity to provide goods for the local market - government institutions provide limited public procurement opportunities for locally manufactured produces due to mistrust in the product quality even though

[290] CCIIRDC, Stakeholder Interviews, 2022
[291] Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry, UNIDO, 2019
[292] Ibid.
[293] Ibid.
[294] Expert insights from workshop validation for project implementation, CCIIRDC

there are few producers that can supply in quality for government contracts [295]. This is a great disadvantage for a nascent sub-sector where the competitiveness of locally made products are dampened by preference for imports.

5.1.5 Metal and engineering sub-sector

Inadequate and untimely of foreign currency allocation for the metal and engineering sub-sector has limited sourcing inputs, machinery, and spare parts[296]. Although the government has prioritized the manufacturing sector, the amount of forex allocated and distributed is smaller with unclear schedule compared to importers of finished metal goods – e.g., automobile importers. The concerned government organ should reinvestigate the proportion of foreign currency that has been allocated for the domestic manufacturers vis-a-vis the importers of finished manufactured goods as there are currently no systems, transparent procedure, and standard criteria for prioritizing access to foreign exchange for the most critical industry. This measure should ensure that the domestic manufacturing industries are getting priority in having access to foreign currency[297]. Even when for exporting manufacturers generating forex, they are allowed to utilize only 20% of their forex earnings for input sourcing which is difficult for a heavy capital-intensive industry such as metal and engineering. The inability to source inputs limits productivity causing firms to operate below capacity and hindering their potential contribution to other sectors.

Underdeveloped primary sector and poor linkage limited local raw material availability – heavily import dependent sub-sector. Poor quality of local raw materials, lack of sufficient local suppliers, and fragmented local supply chains are the major cause for relying on imported raw materials[298]. A lack of strategic input producers drives import dependence; for example, there is no printed circuit board manufacturer in Ethiopia, which is critical for the electronics sector[299]. For example, even though the country has identified Magnetite-Ilmenite Iron ore and Iron Phosphate deposit in 10,242 Km2 in Gimbi town and Sekota Iron-Ore deposits located in Sekota woerda, Amhara, Koream town with approved 99 MM tones deposit the resources are not developed. As a result, high imported raw material costs lead to poor production efficiency, performance, and competitiveness[300].

Poor technology use and adoption capability in the sector as par to imported metal and engineering products and manufacturing process[301]. Metal and engineering manufacturing is hindered by the use of outdated technology compared to global standards which leads to major productivity gaps[302]. This is in part due to their inability to secure sufficient forex to purchase new and innovative technologies and spare parts. Even though the demand for capacity building and becoming the user of new technology is taken as a strength, the major challenge is the existence of a skill gap in human power

[295] CCIDI, Chemical and Construction Inputs Industry Development Institute 2013 – 2022 E.C. Strategic Plan (Amharic), 2020
[296] Ibid.
[297] Analysis of Achievements and Challenges of Metal, Engineering, Chemicals and Construction Inputs Industries, Beyene Tadesse (PHD), May 2018.
[298] Ibid.
[299] MTEIRDC expert insights and private sector focus group discussion, 2023
[300] Ibid.
[301] Dametew, Alie Wube; Kitaw, Daniel; Ebinger, Frank. Enhancing Basic Metal Industry Global Competitiveness Through Total Quality Management, Supply Chain Management & Just-In-Time. Journal Of Optimization in Industrial Engineering, 2020.
[302] Policy Studies Institute, Development of Ethiopian Steel industries; Challenges, Prospects and Policy Options (2015-2025), 2017

capacity in utilizing the existing high-level machines, a situation which can deter the provision of products with the desired quantity and quality for the market created by development programs[303]. This is mainly unmatching skill and knowledge training provided by tertiary schools, TVETS, and private skill development institutions in relation to current market demand. As a result, processing is hampered due to the lack of skills to operate the available technology and poor attitude toward production. Skill development programs and sub-programs under university-industry linkages are potential areas to generate technology spin-offs and develop practical skill.

The other challenge facing is the lack of quality products from auxiliary industries[304]. Manufacturers of electronic equipment such as TV and mobile producers are importing packaging materials from abroad as the ones produced locally are sub-standard or below standard. Ethiopian Standard Institute and Conformity Assessment Enterprise do not have the relevant and specific standard for these auxiliary commodities.

Customs experts do not have the necessary knowledge and information regarding machinery hence customs facilitation is expensive and delayed[305]. For example, SKD (Semi-knocked down) and CKD (Completely knocked down) vehicles are required to bring in their parts in one shipment, but the fact that they are sourcing from different countries and suppliers globally is not taken into factor during customs facilitation and processing. A lack of transparency around customs policies also inhibits the competitiveness of local products. For instance, there is limited technical knowledge on customs policies and low awareness of proper product classifications, which leads to higher pricing on import of materials needed for production. Lack of clarity on the regulation and implementation of the law and customs handling with experts who have the knowledge, and the know-how is therefore a problem area for the sub-sector. Additionally, due to delayed customs audits of incentives in terms of what has been provided as an incentive and how manufacturers utilize it is done after years of implementation resulting in backpays and repercussions that manufacturers could have addressed early on.

Ethiopia's metal and engineering sub-sector also suffers from the lack of sufficient and timely financing provided by banks, unlike agriculture and export-promoting sectors. The Development Bank of Ethiopia does not provide working capital loans for the industries while commercial banks immediately request interest payments along with the principal after loan disbursement before manufacturers start production where most firms are under construction and early stages of production[306]. There is also a lack of procedures to transfer risk such as hedging[307] - the banking system does not allow manufacturers to transfer financial risk from one bank to the other. Once manufacturers forfeit loan payments, the closure and sale of the property of the manufacturer by banks is the only option for manufacturers to salvage their businesses discouraging new entry, existing manufactures to take risk and expand.

Frequent power interruptions limiting production capacity and augmenting the cost of production. Metal and engineering industries require a steady power supply to ensure quality output production

[303] Ibid.
[304] MoI, Manufacturing sector challenge and mitigation measure identification workshop, 2023
[305] Ibid.
[306] Addis Chamber Journal of Trade and Business, Competitiveness of Ethiopian Industries, May 2015
[307] A hedge is an investment position intended to offset potential losses or gains that may be incurred by a companion investment, where a potential manufacturer avoids the risk of loss and bankruptcy by transfer the risk from one asset base to another.

as interruptions can lead to poor quality products that may not be marketable and result in losses for manufacturers[308]. As a result, the price of final goods increases, resulting in products being uncompetitive in the market. This leads to the continued use of contraband where illegal products are favoured more than legally produced domestic items since it avails products that are cheaper in price given that these products also avoid tax and customs duties due to their illegal importation process – e.g, automobile spare parts are abundantly from the illegal market.

Despite the government's decision to promote the metal and engineering sector as an import-substituting industry, there was no revision of the tariff structure of competing imported products in favour of the domestic metal and engineering industry. The industry doesn't have distinct incentive instruments particularly designed to address the bottlenecks it faces[309]. There are currently no incentives that are based on value-addition; all producers receive similar incentive support regardless of their value-addition potential and actual production capacities. The import substitution effects of the local metal and engineering industries are therefore weak and only marginally improving over time due to the fast growth of imports of the manufacturing goods than the growth of the value addition of the industries[310]. Although machinery is imported with customs duty exemptions, machinery spare parts are not.

Negative attitude towards local products including public procurement discouraging local manufactures access to market. Public bids floated by government institutions specifically put "not assembled locally" requirements to discriminate against local producers accelerating the negative attitude towards domestic products. For instance, Ethio-telecom used to purchase finished Techno branded mobile phones from China despite the availability of a Techno phones assembly plant in Ethiopia suffering from a foreign currency shortage[311]. As a result, while domestic industries are dreadfully complaining about the public procurement and foreign exchange provisions, there is a huge amount of semi-finished and finished products imported from abroad for public projects[312].

There is a lack of clear policies that enhance the competitiveness of the industry and little investment in research and development which focuses on the industry[313]. There are no policies that provide direction of where the sector is headed in the coming years or plans to develop upstream value chains which impact the competitiveness of the sub-sector[314]. For instance, the lack of small and medium electronics industries in the supply chains that feed into large manufacturers is a big deterrent for manufacturers such as Samsung to expand their investment in the country[315]. Though iron ore is the base for industrialization, the country has not identified the resource at the national level, and there have been no investments to develop the lower end of the value chain in iron ore production. According to MTEIRDC, the iron ore processing feasibility study is complete, however,

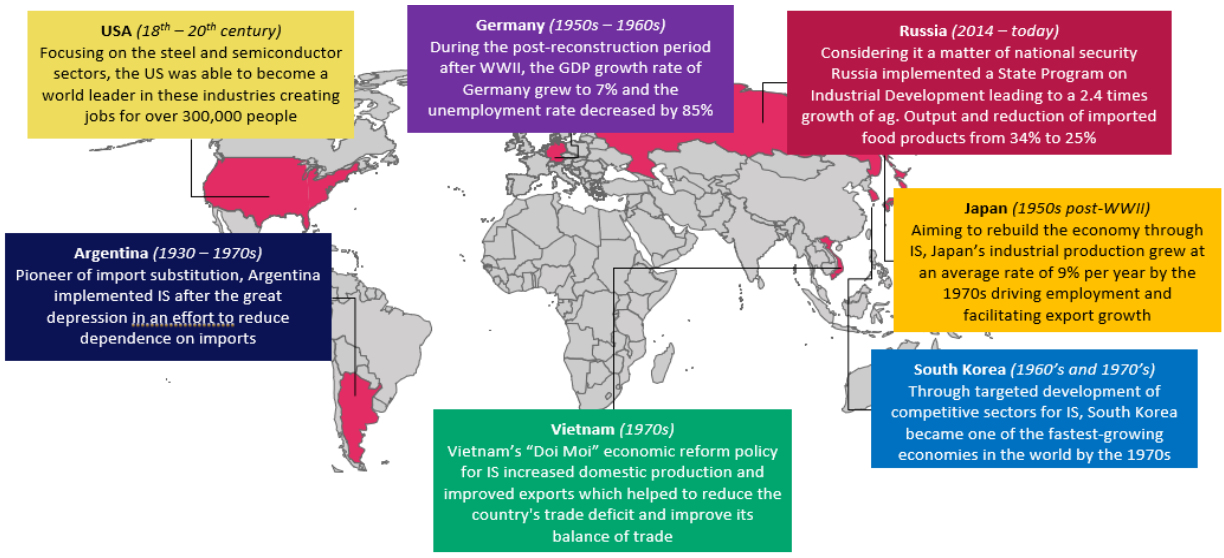
[308] Dametew, Design. Analysis of Small Hydro Power for Rural Electrification, 2016
[309] Gebreeyesus, Mulu. A natural experiment of industrial policy: Floriculture and the metal and engineering industries in Ethiopia Working Paper, 2015
[310] Ibid.
[311] MTEIRDC expert insights and private sector focus group discussion, 2023
[312] Yigletu, Solomon Mulugeta. Analysis Of Causes for Under-Capacity Production Of The Ethiopian Re-Bar Manufacturing Industry, 2018
[313] Addis Chamber Journal of Trade and Business, Competitiveness of Ethiopian Industries, May 2015
[314] Workneh, Habtamu and Desalegm, Gashaw., Competitiveness of Ethiopian Industries: The Case of Metal & Metal Products Industry, 2017
[315] MTEIRDC expert insights and private sector focus group discussion, 2023

there are no actions in place to ensure its implementation[316]. In addition, due to unclear mandates and working procedures, there is an incoherent understanding by the private sector of available support from the government to support the sub-sector limiting attraction to the sector. The absence of a strong manufacturers association in metal and engineering to mobilize manufacturers and push for policy change enables policy inefficiencies to continue.

5.2 Case Studies and Learnings

The implementation of import substitution industrialization strategies and enhancement of manufacturing sector performance has been a topic of interest for many developing countries. To this end, international case studies were reviewed to identify and synthesize key learnings and methodologies from peer countries that have implemented successful import substitution policies. Argentina, Japan, Russia, South Korea, and Vietnam were selected as peer countries due to their development objective of substituting imports, economic alignment during policy implementation, and similar demographic conditions. By reviewing the policies and practices of these peer countries, Ethiopia can gain valuable insights to enhance its own import substitution industrialization strategies and manufacturing sector performance.

Figure 53: Key insights from benchmarked countries that have implemented import substitution policies



5.2.1 Argentina

The policy of import substitution industrialization (ISI) was adopted by Argentina in the 1930s and continued to be implemented through the mid-1970s. The goal of this policy was to reduce dependence on foreign imports and promote the development of domestic industries, particularly in the manufacturing sector[317].

The government of Argentina chose strategic import substitution products for the manufacturing sector-based criteria such as strategic importance, the potential for growth, substitutability, market demand, resources, and capabilities. The government would also review and adjust the list of products as the country's economic situation changes and new opportunities arise. Some examples of

[316] Ibid.

[317] Centre for Economic and Policy Research, 2020; The Political Economy of Argentina, 1946-83" by Guido Di Tella and Rudiger Dornbusch

strategic import substitution products in the manufacturing sector include food and beverages, pharmaceuticals, textiles, automobiles, machinery, and equipment[318].

Argentina implemented import substitution industrialization (ISI) through a variety of measures and policies. Some of the key ways that Argentina implemented ISI include[319]:

1. **Tariffs and import restrictions:** The government imposed high tariffs on imported goods to make them more expensive and less competitive with domestic products. This helped to protect domestic industries from foreign competition.
2. **Subsidies:** The government provided subsidies to domestic industries to help them compete with foreign imports. This helped to keep the prices of domestic products low and made them more competitive with foreign imports.
3. **State-led investment:** The government invested heavily in key industries, such as manufacturing, to help them grow and develop. This included building new factories, providing loans, and providing other forms of support to domestic industries.
4. **Price control:** Government controlled the prices of some goods to ensure that domestic industries could sell their products at a competitive price.
5. **Currency devaluation:** The government devalued the currency to make exports cheaper and imports more expensive, and thus, increase the competitiveness of domestic products.
6. **Nationalization:** In some cases, the government nationalized key industries, such as oil and gas, to ensure that they were controlled by the state and protected from foreign competition.
7. **Local content requirements:** In some sectors, the government also required that a certain percentage of a product be manufactured locally in order to be sold in the domestic market. This helped to promote domestic industry and reduce dependence on foreign imports.

Through the implementation of these measures, Argentina was able to realize economic benefits, some of which include[320]:

- **Economic Growth:** During the 1950s and 1960s, Argentina experienced strong economic growth, with real GDP growing at an average rate of around 6% per year
- **Industrialization:** The import substitution policies of the period led to a significant expansion of the Argentine industrial sector, with the share of industrial production in GDP increasing from around 20% in the 1930s to over 35% by the 1970s.
- **Trade:** During the import substitution period, Argentina's trade policies resulted in a sharp reduction in the country's dependence on imports and a corresponding increase in exports leading to a trade surplus by the 1970s.

Despite these positive results of strong economic growth during this period, Argentina experienced high and persistent inflation, with average inflation rates ranging from 20-30% per year. In addition, poverty and income inequality remained persistent problems in Argentina during the import substitution period.

Lesson for Ethiopia:

[318] "Import Substitution and the Argentine Economy", The Brookings Institution
[319] "Argentina's Import Substitution Industrialization in Historical Perspective", Roberto Cortés-Conde, International Journal of Political Economy, Vol. 45, No. 1, 2016.
[320] Ibid.

1. **The importance of targeted policies:** Argentina's ISI policies were successful in promoting the growth of certain domestic industries, such as heavy and chemical industries, as well as in diversifying the economy. Ethiopia could learn from this and focus on specific sectors that have the potential to grow and diversify its economy.
2. **The need for a long-term perspective:** Argentina's ISI policies were implemented over a period of several decades, which allowed for gradual adjustment and adaptation. Ethiopia should be prepared for a long-term commitment in order to achieve sustainable development.
3. **The need to address infrastructure and human capital:** Argentina's ISI policies were successful in part because the government invested heavily in infrastructure, energy, and transportation. Ethiopia should focus on similar areas in order to promote its domestic industries.
4. **The importance of a balance between protectionism and openness:** Argentina's ISI policies were criticized for being too protectionist. Ethiopia should strive for a balanced approach between protectionist policies such as tariffs and subsidy for domestic industries and opening up to international trade.
5. **The need for good governance and institutions:** Argentina's ISI policies were implemented in an environment of political instability and poor governance, which limited its effectiveness. Ethiopia should make sure that it has strong institutions in place to support economic development.
6. **Diversification of production:** Private stakeholders also played a role in the success of ISI by diversifying their production and exploring new markets. This helped to mitigate the risks of relying on a single product or market, and to increase the competitiveness of domestic companies.

It is clear that the implementation of import substitution industrialization (ISI) in Ethiopia may be difficult due to the differences in the economic and political contexts between Ethiopia and Argentina. However, it is also possible for Ethiopia to successfully implement ISI if it is able to effectively manage its resources, develop its technological capacity, and create an atmosphere of political stability. Ultimately, it is up to Ethiopia to make the necessary adjustments to ensure that ISI is successful.

5.2.2 Japan

Japan implemented import substitution strategy after World War II as a way to rebuild its economy in the 1950s. The main goal was to reduce the country's dependence on imports, stimulate domestic production, increase employment, and improve the standard of living[321]. This strategy was successful and allowed Japan to become an economic powerhouse in the mid-1960s. Additionally, it helped the country to diversify its economy and build up its domestic capabilities and research and development efforts[322].

The combination of strong government support, private-public collaboration, a skilled workforce, high-quality infrastructure, an emphasis on innovation, and a focus on strategic products and industries, has been an important factor in the success of Japan's policies and initiatives to promote

[321] (Inomata, 2019, p. 58)
[322] Ohkawa, K. Industrial and Trade Policies of Japan: The Experience of the Postwar Period, 1972

domestic production and import substitution. However, the success of import substitution can depend on a variety of factors, including the **country's resources, infrastructure,** and **political stability**[323].

It identified several strategic import substitution products, such as semiconductors, automotive parts, optical components, electronics, precision machinery, medical equipment, and biotechnology products. In addition, the government has identified certain industries as strategic, such as the petrochemical industry, the pharmaceutical industry, and the energy industry. The government has also implemented policies to encourage the development of domestic industries in these areas, such as tax incentives and government loan programs. During the post-World War II period, Japan's government implemented a range of tax breaks and Regulations to promote domestic manufacturing[324]. Some examples include:

- Tax exemptions for investments in new machinery and equipment.
- Tax deductions for research and development expenses.
- Incentives for companies to locate their factories in certain regions of the country.
- Regulations that restricted imports of certain goods, such as luxury goods and durable consumer goods. This helped to protect domestic industries and promote their growth.

Private companies were integral to the development and growth of new industries, technologies, and production processes in Japan. Their expertise, resources, and efficiency allowed them to replace imported goods with domestic alternatives, attracting foreign investment through forming partnerships and joint ventures. The private sector was also involved in lobbying the government to shape import substitution policies that suited their interests, providing the necessary support they need to generate growth and success[325].

To promote domestic technology and manufacturing, the Japanese government established a number of institutions and programs. Some examples include:

- The Japan External Trade Organization (JETRO) provides financial assistance to companies that are developing new products or services in strategic areas of import substitution. Additionally, JETRO assisted companies in exporting their products.
- The Ministry of International Trade and Industry (MITI) which helped to develop new technologies and industries.
- The Japan Development Bank which provided low-interest loans to companies for investments in new technologies and industries.

The Japanese government also provided foreign exchange incentives to domestic producers to encourage them to export which in turn improved domestic competitiveness and productivity. This helped to increase the competitiveness of Japanese goods in the international and local markets and helped to establish Japan as a major exporter.

The government also provided educational opportunities for citizens to build their skills and knowledge, which helped to build the human capital needed to sustain technological and

[323] Ibid.
[324] Kawai, M. and Urata, S. Changing Commercial Policy in Japan during 1985–2010, November 2010
[325] Hikino, T. and Nagaoka, S. The Economic Development of Japan: Sources of Economic Growth before World War II, 2017

manufacturing growth[326]. In doing so, Japan was able to realize economic gains from its import substitution strategy. Some examples of these include[327]:

- **Increased industrial production:** The implementation of import substitution policies led to a significant increase in industrial production in Japan. Between 1950 and 1970, industrial production grew at an average rate of 9% per year.
- **Exports growth:** Japan's exports grew rapidly during the import substitution period, as the country's industries became more competitive. In 1960, Japan's exports were worth $3.2 billion, and by 1980, they had grown to $121 billion.
- **Reduction in dependence on imports:** The import substitution policy helped Japan to reduce its dependence on imported goods. In 1950, imports accounted for 60% of Japan's total demand, but by 1970, this figure had fallen to 30%.
- **Labor force growth:** The rapid growth of Japan's industrial sector led to an increase in the country's labor force. Between 1950 and 1970, the size of the labor force in Japan increased by 30%.
- **Increased productivity:** The import substitution policy also led to increased productivity in Japan's industrial sector. By 1970, labor productivity in the manufacturing sector had increased by 50% compared to 1950.

Lesson for Ethiopia

Ethiopia should focus on building up its domestic capabilities and research and development efforts, incentives for domestic industries, and encourage the development of new products and services that could replace imports. Additionally, Ethiopia should invest in educational opportunities to build their citizens' skills and knowledge so that they can develop new products and services for import substitution.

In today's context, Ethiopia is facing a number of economic challenges (high inflation and shortage of foreign currency), political instability, and lack of infrastructure. Therefore, it may be difficult for Ethiopia to implement import substitution as Japan did. Additionally, Ethiopia's economy is heavily dependent on exports of primary goods, such as coffee and oilseeds, which is not ideal for import substitution policies and industrialization. However, there are some potential steps that Ethiopia could take to substitute imports:

1. **Protecting domestic industries:** Ethiopia could implement tariffs and other protectionist policies to enable domestic industries to compete with foreign companies.
2. **Encouraging foreign investment with stringent backward linkage requirement**: Ethiopia could attract foreign investment in domestic industries through tax incentives and other financial incentives but at the same time put in place incentive and controlling systems for backward linkage with the domestic industry.
3. **Holistic and integrated infrastructure development:** Ethiopia could improve infrastructure such as transportation and communication systems to support the growth of domestic industries.

[326] Schaller, S. Japanese Economic Development: From Postwar to Abenomics, 2013; Ohkawa, K. Industrial and Trade Policies of Japan: The Experience of the Postwar Period, 1972
[327] Sumiya, Mikio., The Japanese Economy

4. **Build human capability:** Ethiopia could invest in education and training to build a skilled workforce that can support the growth of domestic industries.

NB: it is worth noting that import substitution policies alone are not enough for sustainable and robust economic development. Import substitution should be implemented with the vision of integrating with the global market and aiming for export-oriented growth in the long term.

5.2.3 Russia

Russia was the 11th largest economy in the world in 2021, with its gross domestic product measured at 1.78 trillion US dollars which represents 0.79%of the world economy[328]. In Russia, manufacturing is the most important sector and accounts for 55% of total production. The biggest segments within manufacturing are metallurgy (9.6%); coke and refined petroleum products (9.5%); food beverages and tobacco (8.4%); chemicals (4%); machinery and equipment (3.8%); transport (3.7%) and electrical equipment (3.4%)[329].

Russia implemented an import substitution strategy to increase domestic production and reduce the country's dependence on foreign goods[330]. A reduction in the country's dependence on imports was made a national security matter[331]. In 2014 Russia implemented a State Program on Industrial Development and Improving Industrial Competitiveness. The program instated import restrictions on authorities' procurements, import restrictions on procurements by state-owned and some private companies, localization incentives, sanctions, and other trade protectionist measures[332].

The success of import substitution in Russia has been largely dependent on the Government's ability to encourage private-sector investment. By providing incentives and a supportive environment, the government has enabled the private sector to play a major role in the implementation of import substitution. This has included fiscal incentives, such as reduced taxation and increased access to capital, as well as regulatory measures, such as the formation of public-private partnerships and the deregulation of certain sectors[333].

The government also set up special economic zones and prioritized the development of strategic industries such as agriculture, machinery, and high-tech industries by providing various incentives and support to domestic producers, such as tax benefits, subsidies, and favorable lending conditions[334].

Russian private companies, on the other hand, were encouraged to invest in research and development, upgrade their technology, and increase their competitiveness. The government also helped private companies to establish partnerships and joint ventures with foreign companies to bring in new technology and expertise. By letting foreign companies whose goods are subject to restrictions can maintain their shares or get full access to the Russian market if they open production plants in the country. Such plants can use imported components. However, they must carry out production activities that will allow their end products to be classified as "domestic" goods[335].

[328] Economy of Russia – Statistics and Facts, 2023
[329] Trading Economics, Russian Federation Industrial Production 2000-2022, 2023
[330] Heidemann Thomas, Import Substitution and Production Localisation in Russia, 2021
[331] Evgeny Gontmakhe, Russia's import substitution: Effects and consequences, 2021
[332] Heidemann Thomas, Import Substitution and Production Localisation in Russia, 2021
[333] Ibid.
[334] Ibid.
[335] Ibid.

The government has created a Government Committee for Import Substitution to coordinate the actions of the federal, regional and municipal authorities and private companies involved in the implementation of the import substitution policy[336].

Russia's import substitution has worked better in the food sector than industrial ones. The 2016 Decree stipulates a list of 23 types of food products that enjoy preferential treatment in public tenders if they are manufactured locally. With time this led to a significant increase in local food production and the ongoing boom in the industry. In the 2011-2019 period, the elimination of market competition from imported goods and the 2.4 times increase in gross agricultural output made the provision of food to the population to remain stable. The share of imported food products in retail trade also dropped from 34% in 2013 to 25% in 2019[337].

Lesson for Ethiopia

Russia's import substitution policy, which aims to reduce dependence on foreign imports and promote domestic production, has several lessons for Ethiopia such as focusing on strategic sectors where Ethiopia has strong leverage, investing on human capital and technology, and government support in facilitating the activities of the private sector in diversifying the economy and fostering the development of the domestic market.

Some potential steps that Ethiopia could take to substitute imports are discussed below:

- **Focus on strategic sectors and develop production** – Russia focused its import substitution efforts on strategic industries such as defense, agriculture, and energy, which had a significant impact on the economy. Russia also focused on developing its domestic production, with a particular emphasis on small and medium-sized enterprises. Ethiopia can replicate this approach by supporting the growth of domestic production and encouraging entrepreneurship on key sectors that have high import substitution potential.
- **Provide incentives for foreign companies to locally source inputs for production** – Russia implemented several incentives for foreign companies to localize their goods by opening production plants in the country, instead of simply importing their goods from their factories in other countries. For instance, a critical incentive includes the lift of restrictions imposed on imported goods for commodities produced in Russia, in addition to tax benefits and subsidies. Ethiopia can therefore implement similar types of incentives for specific sectors and/or products which can foster import substitution by encouraging use of domestic production.
- **Strong government involvement** – The Russian government played an active role in import substitution, providing subsidies and other forms of support to domestic producers. The government and legislators created several incentives for companies to localize their goods in the country. The 2015 Industrial Policy Law abolished the principle of treating domestic and foreign goods equally during state procurements of goods, as well as procurements by state-controlled companies by giving preferences to locally produced goods. Ethiopia can leverage the role of government to support import substitution, such as providing preferential treatments, tax incentives, subsidies, and access to finance.
- **Invest in human capital and technology development:** Russia invested in education, research, and development to build its human capital and technological capabilities. This helped the

[336] Ibid.

[337] Evgeny Gontmakhe, Russia's import substitution: Effects and consequences, 2021

country achieve import substitution and improve competitiveness. Ethiopia can follow suit by investing in its human capital and technological capabilities.

- **Sector specific import restrictions** – Russia provided pricing preference over goods from other countries and imposed restrictions on the importation of certain goods. For instance, an increase in tender prices up to 40% in bulldozers, tractors, and excavators, and high customs tariffs were imposed on particular sectors. Ethiopia can adopt similar policies to support local production and encourage use of domestic goods by businesses and the general public.
- **Coordinated implementation of policies** – Russia formed a committee to coordinate the actions of the federal, regional authorities, and private companies involved in the implementation of the import substitution policy. Among other mandates, the Government Committee for Import Substitution was responsible for monitoring and providing consent for the purchase of a list of commodities listed in the 2015 Decree. The committee also monitored the implementation of initiatives agreed by the government. Ethiopia can implement a similar coordinating body to ensure planned interventions are enacted in accordance with its policies.

5.2.4 South Korea

South Korea has a population of approximately 51 million people, with the majority residing in urban areas. The country has a highly educated population and a strong work ethic, which has contributed to its economic success[338]. South Korea's import substitution strategy was a key aspect of the country's economic development in the post-World War II era[339].

In the 1960s and 1970s, South Korea pursued an import substitution policy in certain industries like electronics, steel, shipbuilding, automobiles, and petrochemicals to develop its domestic competitiveness and implemented a series of measures such as the creation of government-owned corporations and the establishment of protective tariffs on imported goods to support this effort. This policy aimed to reduce the country's dependence on imported goods and to promote the growth of domestic industries. In turn, the policy helped to create a supportive environment for domestic production and enabled South Korean companies to develop their competitiveness in targeted industries which helped drive economic growth and enhance the country's overall competitiveness in the global marketplace as well[340].

One of the key features of South Korea's import substitution strategy was the heavy involvement of the government in the development of key industries. The government created state-owned corporations to invest in and promote the growth of specific industries, such as steel, shipbuilding, and electronics. These corporations were given special privileges and benefits, including tax breaks, subsidies, and access to credit, which helped them to compete against foreign competitors[341].

The private sector was also responsible for the implementation of the import substitution policy, as it was the primary source of investment for the domestic industries. Private companies were encouraged to invest in local production capacities, purchase, and source domestic raw materials, and produce goods for domestic consumption. This was done by providing incentives for the private sector, such as tax credits, subsidies, and access to finance.

[338] World Bank ,2020
[339] Michael J. Seth, South Korea's Economic Development, 1948–1996, 2017
[340] Kwan S. Kim, The Korean Miracle (1962-1980) Revisited, 1991
[341] Ibid.

To support these activities, the government in turn played an important role in providing the necessary infrastructure and support for the private sector. This includes providing legal and financial support, investing in transport and communication networks, and providing training and education to the workforce. It also provided assistance to the private sector in marketing, advertising, and research and development. In addition, it made sure that the import substitution policy is properly implemented by setting up guidelines and regulations for the private sector, ensuring that the quality and price of the goods produced are competitive, and monitoring the compliance of the policy.

Therefore, South Korea implemented import substitution industrialization through a variety of measures and policies which include[342]:

- **Protectionist measures** – Tariffs and other trade barriers to protect domestic industries from foreign competition.
- **Investment in infrastructure** – Invested in key industries and infrastructure projects to support their development.
- **Encouraging foreign investment** – attracted foreign investment in targeted industries to bring in advanced technology and expertise.
- **Supporting research and development** – supported research and development in key industries to enhance their competitiveness.
- **Providing financial incentives** – provided financial incentives, such as subsidies and tax breaks, to help domestic companies grow and compete with foreign companies.

The import substitution strategy was successful in helping South Korea to develop its domestic industries and reduce its dependence on imports. By the end of the 1970s, the country was producing a significant amount of its own goods and had become one of the fastest-growing economies in the world. The country was able to realize competitiveness by boosting production capabilities. It also improved its trade balance due to lesser dependence on imports and foreign markets which helped maintain a stable economy. The initiatives implemented created jobs which in turn helped reduce unemployment and boost the standard of living of citizens. South Korea was also able to diversify its industries and improve technological developments which allowed the country to stay at the forefront of technological advancements and remain competitive globally.

South Korea's import substitution policy in the 1960s and 1970s can teach Ethiopia several key lessons in today's context:

1. **Strategic planning and policy consistency:** South Korea implemented a well-defined, comprehensive, and long-term import substitution strategy with clear targets and consistent policies over several decades to support domestic industries and promote economic growth. The country was also adaptable and adjusted its policies as needed, responding to changing economic conditions and shifts in global trade patterns to remain competitive.
2. **Investment in human capital:** South Korea invested in education, training, and research to develop a highly skilled workforce. This was essential to support the development of domestic industries.

   Support from the government: South Korea provided a range of subsidies, tax incentives, and other forms of support to domestic industries. The government also played a crucial role in

[342] Ibid.

implementing and supporting import substitution policies, providing necessary resources and investment to help domestic industries grow and thrive. The government also invested in the development of infrastructure, including transportation, communication, and energy systems, to support the growth of domestic industries. This helped them compete with foreign companies and encouraged investment in domestic production.

3. **Focus on targeted sectors:** South Korea targeted specific sectors, such as steel, electronics, and shipbuilding, for import substitution. These industries were also prioritized for investment in R&D, providing subsidies, and opening up foreign markets to help industries become competitive and reduce dependence on imports. This approach allowed for concentrated investment and facilitated the rapid growth in these sectors.
4. **Encouragement of private investment:** South Korea encouraged private investment and entrepreneurship, which played a key role in the success of its import substitution policy. The government also worked closely with the private sector to implement import substitution policies, leveraging the expertise and resources of both to achieve their goals through public-private partnerships.

By studying South Korea's import substitution policy, Ethiopia can learn how to develop a comprehensive and consistent strategy, invest in human capital, focus on targeted sectors, encourage private investment, and receive support from the government to achieve successful import substitution.

5.2.5 Vietnam

Vietnam has a population of approximately 97 million people and is known for its dynamic and rapidly growing economy[343]. Vietnam has undergone significant economic reforms in recent decades, including the introduction of the economic reform policy "Doi Moi" in the late 20th century, which aimed to reduce the country's dependence on imports and increase the competitiveness of domestic industries by providing incentives for domestic production and limiting imports of certain goods particularly in key sectors such as manufacturing, agriculture, and technology. This was part of Vietnam's broader plan to transition from a planned economy to a market-oriented economy and integrate into the global economy. This policy, along with other reforms and favorable economic conditions, has led to a period of sustained economic growth in Vietnam[344].

The government played a leading role in promoting the development of domestic industries, with the state-owned sector being the main engine of growth. To achieve the goal of import substitution, the Vietnamese government implemented a range of policies which included measures such as tax incentives for domestic production, relaxed regulations for domestic firms, and trade barriers to protect domestic producers which facilitated the growth of domestic industries, particularly in sectors such as electronics, textiles and clothing, and footwear.

Some of the policies and measures Vietnam implemented to facilitate import substitution industrialization include[345]:

[343] World Bank, 2021
[344] The story of VietNam's economic miracle: World Economic Forum, 2018
[345] Dwight H. Perkins and Vu Thanh Tu Anh, Vietnam's Industrial Policy Designing Policies for Sustainable Development, 2010

- **Tax incentives:** Different tax measures were implemented to reduce the costs and increase the competitiveness of domestic producers including Corporate Income Tax (CIT) exemptions, import duty exemptions for raw materials, components, and other inputs needed for domestic production, Value-Added Tax (VAT) exemptions for certain goods, and tax holidays for foreign investors in certain sectors, to attract foreign investment and support the development of domestic production.
- **Tariff protection and quotas:** Tariffs were imposed on imported goods to increase their prices and make domestically produced goods more competitive, while some goods had import quotas to limit the quantity allowed into the country and protect domestic producers.
- **Licensing requirements and forex controls:** Licensing requirements were imposed on imported goods to control the volume and types of goods entering the country in addition to the amount of foreign exchange available for imports to limit the volume of imports and support import substitution.
- **State subsidies:** The government provided financial support to domestic firms to help them compete with foreign imports.
- **Local content requirements:** Regulations were put in place that required firms to use a minimum amount of domestically produced inputs in their production process.
- **Technology transfer requirements:** Regulations were put in place to encourage the transfer of technology from foreign companies to domestic firms.

Beyond incentives and trade policies, the government also invested in infrastructure development to support the growth of key sectors and industries such as transportation and energy to create a favourable environment for import substitution. Additionally, the government also provided access to credit and technical assistance and training to companies operating in priority sectors and industries to help improve their competitiveness. The Vietnamese government also provided access to credit for companies operating in priority section

On the other hand, the private sector was encouraged to participate in the economy and was given greater freedom to operate. The sector played a crucial role in the implementation of the import substitution policy by investing in key sectors, introducing new technologies and processes to improve competitiveness, creating new jobs in the domestic economy, and developing the domestic and international markets for domestic products. Over time, as the private sector became more established, it began to play a larger role in driving economic growth, while the state-owned sector was gradually reformed. Ultimately, both the private and public sectors played important roles in the success of import substitution in Vietnam.

Vietnam's import substitution policy had a significant impact on the country's economy. It helped to promote economic growth by boosting domestic production, reducing the country's reliance on imports, and increasing exports. The increase in domestic production and exports helped to improve competitiveness and reduce the country's trade deficit and improve its balance of trade. The policy led to increased production in the priority sectors such as electronics, textiles, and machinery which in turn created new jobs in the domestic economy and helped to reduce poverty. The policy also attracted foreign direct investment to the country, which helped to finance and support the development of domestic industries[346].

[346] Nguyen Thi Tue Anh, Luu Minh Duc, and Trinh Duc Chieu, The evolution of Vietnamese industry, 2014

Lesson for Ethiopia:

1. **Strategic focus** – The government had a clear strategy for developing domestic industries, which helped to prioritize resources and allocate them effectively to priority sectors, such as agriculture, electronics, and textiles. Ethiopia can also identify its priority sectors and allocate resources accordingly.
2. **Long-term planning** – Vietnam's import substitution policy was part of a long-term plan to achieve sustainable economic growth. The policies were implemented gradually, allowing the economy and domestic firms to adjust over time. This helped to reduce the negative impacts of the policies. Ethiopia can also adopt a long-term planning approach to ensure the success of its import substitution policy.
3. **Reforms in other areas** – The import substitution policies were accompanied by reforms in areas such as finance, education, and infrastructure, which helped to create a more favourable environment and support economic growth. Ethiopia can work to create alignment with other sectoral reforms to ensure complementary and cohesive implementation of its policies.
4. **Encouragement of the private sector** – The private sector in Vietnam was dynamic and responded well to the opportunities created by the policies, which was a key factor in their success. Ethiopia can create an enabling environment for the private sector to thrive and support import substitution through different measures such as subsidies, incentives, etc.
5. **Openness to trade** – Despite the import substitution policies, Vietnam remained open to trade and continued to engage with the global economy, which helped to maintain access to markets and investment.

5.2.6 Germany

Although Germany did not have a specific policy that can be categorized as import substitution in the traditional sense, during the post-World War II era, it had placed focused on developing domestic industries to reduce its import dependence[347]**.** During the post-reconstruction phase in the 1950s and 1960s, Germany emphasized rebuilding its domestic industries and reducing reliance on imports. This period saw a focus on developing and expanding domestic production capacities, particularly in sectors such as heavy industry, manufacturing, and infrastructure. The government implemented policies that supported the growth of domestic industries and encouraged investment in technology and innovation. While these efforts aimed to boost self-sufficiency, they were also accompanied by a strong focus on export-oriented policies to generate foreign exchange and promote international trade[348].

According to a report by the German Federal Ministry for Economic Affairs and Energy, the steel and machinery sectors were prioritized by Germany as strategic industries due to several reasons. Firstly, these sectors were crucial for the country's post-war reconstruction and economic recovery, as they formed the foundation of Germany's industrial base. Germany aimed to leverage its expertise in these sectors and maintain global competitiveness by focusing on high-quality machinery and engineering products. Moreover, Germany's significant reserves of coal and iron ore made the steel sector a priority, ensuring a stable supply of raw materials and reducing reliance on imports. The steel and machinery sectors are integral to various industries, serving as suppliers for the automotive,

[347] Ehnts, D. (2014). The German Miracle: An Analysis of the German Economy. MPRA Paper, 60900.
[348] Ibid.

construction, and manufacturing sectors, among others. Additionally, the export orientation of the German economy played a role, as the steel and machinery sectors contributed significantly to Germany's export success[349]. Overall, the strategic prioritization of the steel and machinery sectors in Germany was driven by their historical importance, resource endowments, competitive advantage, job creation potential, and their crucial role in industrial and economic development[350].

The German government implemented protectionist measures and initiatives to prioritize the steel and machinery sectors in several ways. These initiatives collectively aimed to foster innovation, industry growth, skills development, resource availability, and international competitiveness in the steel and machinery sectors[351]. The initiatives include:

1. **Research and development support:** The German government provided assistance and resources to encourage research and development efforts in the steel and machinery sectors. For example, funding grants were offered to companies and institutions conducting innovative research projects to drive technological advancements and product development.
2. **Tax incentives for industry growth:** To stimulate growth in the steel and machinery sectors, the government introduced tax incentives. This involved reducing corporate tax rates or providing tax credits for companies investing in new machinery or expanding their operations.
3. **Investments in education and training:** The government allocated funds to enhance education and training programs tailored to the needs of the steel and machinery sectors. This includes establishing specialized vocational schools or providing subsidies for companies to train their employees in advanced manufacturing techniques.
4. **Funding innovation clusters and networks:** Financial support was provided to establish innovation clusters and networks, which bring together companies, research institutions, and other stakeholders to collaborate and share knowledge. These clusters and networks enable companies to pool resources and expertise, leading to collaborative research projects and the development of new technologies.
5. **Ensuring a stable supply of raw materials:** The government implemented measures to secure a consistent supply of essential raw materials for the steel and machinery sectors, such as coal and iron ore. This could involve strategic partnerships with raw material suppliers or investing in domestic resource development projects.
6. **Promoting exports of high-quality products:** The government focused on promoting the exportation of high-quality machinery and engineering products from the steel and machinery sectors. This includes providing export subsidies, organizing trade missions to target markets, or supporting companies in accessing international trade fairs to showcase their products and expand their global market share.

[349] BMWi (2021). Industrial strategy 2030. (https://www.bmwi.de/Redaktion/EN/Publikationen/Industry/industrial-strategy-2030.pdf ?_blob=publicationFile&v=12)
[350] Ibid.
[351] "Innovation and Institutional Embeddedness of Multinational Companies" by Marina Papanastassiou, Robert Pearce, and Antonios Georgopoulos (2019).

The post-war reconstruction period in Germany, particularly the 1950s and 1960s, also had a significant economic impact on the country[352]. Some key aspects of the economic impact during that time include:

- **Rapid economic growth:** The average annual GDP growth rate grew to approximately 7%
- **Industrialization and infrastructure development:** Over 20 billion Deutsche Marks (DM) were invested in infrastructure development and industrial production increased by an average of 10% annually
- **Employment and standard of living:** Unemployment rate decreased from around 8% in 1950 to 1.2% in 1965 while real wages increased by an average of 3.7% per year
- **Technological advancements:** R&D expenditure increased from approximately 0.6% of GDP in the early 1950s to 1.2% by the mid-1960s and Germany consistently ranked among the top countries for patent applications, indicating a strong focus on innovation and technological advancements
- **Export-oriented economy:** Germany's exports grew significantly during the post-reconstruction period, with average annual growth rates of around 12% while consistently maintaining a trade surplus during this period
- **Regional integration and European cooperation:** Trade integration within the European Economic Community (EEC) increased from approximately 18% of total German trade in 1958 to over 50% by the late 1960s

Lessons for Ethiopia

Ethiopia could learn from Germany's experience and prioritize the development of strategic industries while adopting export-oriented policies. This involves identifying sectors with growth potential, supporting research and development efforts, providing tax incentives for industry growth, investing in education, and training programs, establishing innovation clusters, ensuring a stable supply of raw materials, and promoting exports of high-quality products. By implementing these recommendations, Ethiopia can foster innovation, industry growth, and international competitiveness, leading to economic development, job creation, improved living standards, and increased exports, similar to the outcomes observed in Germany during its post-reconstruction period.

5.2.7 United States of America

Protectionism has been a long-standing policy tool used by the US government. During the late 18th to early 20th century, the United States employed these strategies to safeguard its industries from foreign competition. The US also implemented a similar policy as recently as during the Trump administration. The objective behind these measures was to shield domestic industries, maintain employment opportunities, and decrease dependence on foreign goods[353].

The US government used various measures such as subsidies, tax breaks, and tariffs to create a competitive manufacturing industry[354].

[352] Research and Development Expenditure, Trade Balance, Unemployment Rate, Industrial Production, Economic Growth" OECD Data
[353] "The History of US Trade Policy," by Chad P. Bown and Douglas A. Irwin, The Oxford Handbook of International Trade Policy (2012).
[354] Ibid.

1. **Tariffs:** In recent times, the US has adopted protectionism policies to protect its industries from competition, particularly from China. The Trump administration implemented tariffs on Chinese goods to reduce the US trade deficit with China and to protect US industries from what it saw as unfair competition[355].
2. **Tax Breaks:** The US has also implemented policies such as the **Buy American Act**, which requires federal agencies to purchase domestically produced goods, and the Research and Experimentation Tax Credit, which provides tax breaks for companies investing in research and development[356].
3. **Subsidies:** The government also provided subsidies to US semiconductor companies, which allowed them to invest in research and development and improve their production processes. The US steel industry has been protected through tariffs and other measures to create jobs and reduce dependence on imports[357,358].

The US's protectionism and import substitution strategy have had notable outcomes and impacts on the country's manufacturing industry. One significant example is the US semiconductor industry, which was protected from foreign competition through government subsidies in the 1980s. In the 1980s, the US semiconductor industry reached billions of dollars in revenue annually. By 1982, the market size was already around $20 billion. Throughout the decade, the market continued to expand, driven by increased demand for computer systems, consumer electronics, and various emerging technologies. As a result, the US has become a world leader in the semiconductor industry, with companies such as Intel and Qualcomm leading the way. According to a report by the Semiconductor Industry Association, the US semiconductor industry had a total market size of $209 billion in 2020, with $44 billion in exports. This industry also supports over 250,000 jobs in the US[359].

Another example is the US steel industry, which has been protected through tariffs on imported steel, albeit mixed results. The tariffs have helped to create jobs in the US steel industry and reduce dependence on imports in the earlier years. According to the American Iron and Steel Institute, the US steel industry directly employs over 140,000 people and supports an additional 1.6 million jobs in related industries. In 2020, the US produced 87.9 million metric tons of steel, making it the fourth-largest steel producer in the world[360]. However, a study by the Peterson Institute for International Economics found that the recent tariffs imposed by the Trump administration on Chinese goods led to higher prices for US consumers and reduced US economic output by $1.4 billion per month[361]. Another study by the Federal Reserve Bank of New York also found that the tariffs imposed by the

[355] Trade wars, Trump tariffs and protectionism explained", BBC News, https://www.bbc.com/news/world-43512098

[356] "The History of US Trade Policy," by Chad P. Bown and Douglas A. Irwin, The Oxford Handbook of International Trade Policy (2012).

[357] Helper, S., & Krueger, T. (2004). The US Semiconductor Industry: Protectionist Policies and the Strategic Role of Government. Industry and Innovation, 11(3), 195-214.

[358] Hufbauer, G. C., & Wada, E. (2004). The Economic Effects of Trade Protectionism: The US Steel Industry. Journal of Policy Modeling, 26(4), 445-460

[359] Semiconductor Industry Association. (2021). 2021 SIA Factbook. https://www.semiconductors.org/wp-content/uploads/2021/03/2021-SIA-Factbook.pdf

[360] American Iron and Steel Institute. (2021). Economic Impact. https://www.steel.org/steel-industry/economic-impact.aspx

[361] Mary E. Lovely and David Popp, "Assessing the Impact of the Trump Administration's Tariffs," Peterson Institute for International Economics, May 2019, https://www.piie.com/system/files/documents/pb19-9.pdf.

Trump administration on steel and aluminium imports led to higher costs for US manufacturers and reduced employment in manufacturing industries[362].

Lessons for Ethiopia

Ethiopia can learn from the USA's protectionism and import substitution strategies by implementing measures to safeguard domestic industries, supporting manufacturing through tax breaks and subsidies, targeting key industries for growth, promoting job creation, and considering potential trade-offs and unintended consequences. Thorough research and analysis specific to Ethiopia's context are essential before making policy decisions.

[362] Mary Amiti, Stephen J. Redding, and David E. Weinstein, "The Impact of the 2018 Trade War on U.S. Prices and Welfare," Federal Reserve Bank of New York, August 2019, https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr897.pdf.

6 SECTION V

6.1 Import Substitution Strategic Recommendations

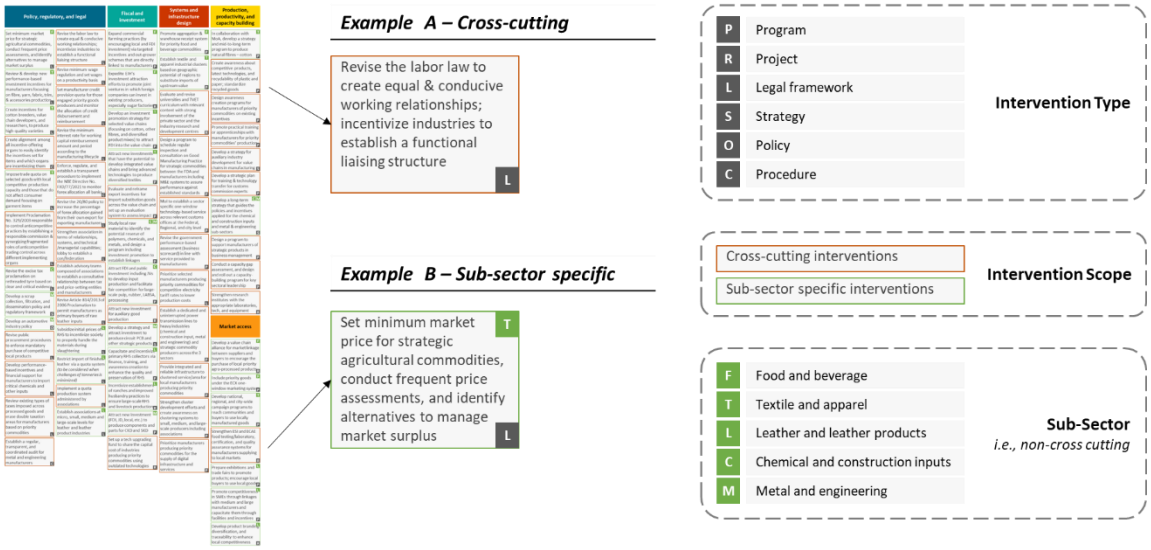
71 interventions categorized under 5 thematic areas have been identified to alleviate the identified constraints and improve the competitiveness of selected commodities to substitute for imports. The primary objective of these interventions is to create an enabling environment that supports manufacturers producing import substitution competitive commodities across the five key sub-sectors. Although the interventions may not be comprehensive, they encapsulate focus areas of the strategy that offer significant potential to support import substitution efforts in the short, medium, and long term. In line with that, the five thematic areas include policy & regulatory, fiscal & investment, systems & infrastructure, market access, and productivity & capacity building. The prioritized interventions are also anchored in existing institutional mandates to ensure sustainable implementation by all concerned bodies. In doing so, the strategy aims to ensure primary focus is placed on priority commodities and interventions are targeted toward addressing key constrains hindering their growth.

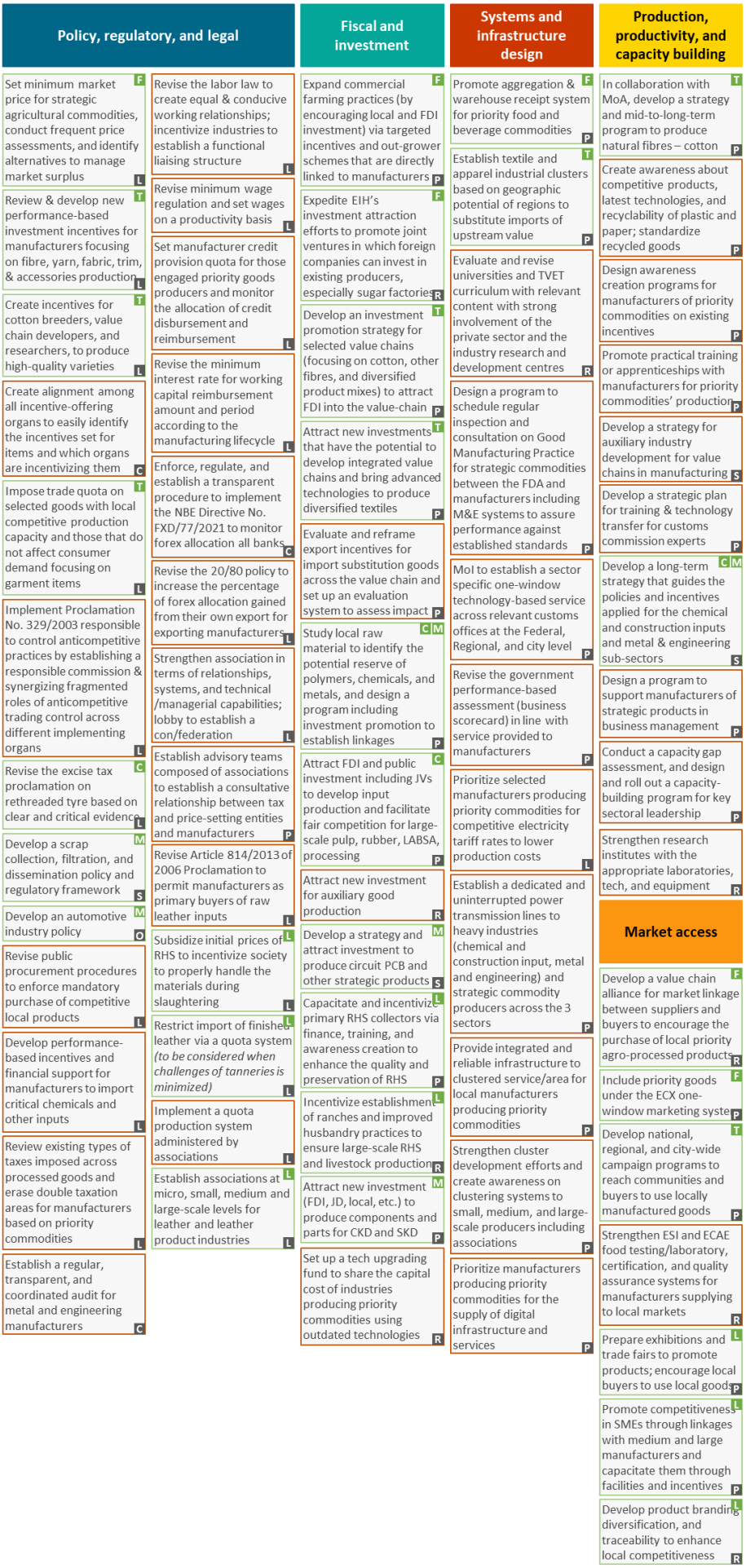
Figure 54: Five themes to categorize identified interventions for import substitution

Policy and regulatory	Fiscal and investment	Systems and infrastructure design	Market access	Production, productivity and capacity building
Includes interventions that require policies, legal frameworks, and government support	Includes interventions that address gaps in finance (working capital and forex) tax, and general incentives, and promote investments in key sectors to enable manufacturers to produce import substituting priority commodities	Includes interventions centred around improved access to key infrastructures and implement systems to facilitate service delivery of institutions and improve the competitiveness of manufacturers	Includes interventions improve market systems, standards, and access of manufacturers with upstream and downstream industries	Includes interventions targeting the development of capacity of implementing institutions and manufacturers and improvement of productivity in the processing of priority goods

The binding constraints and root causes addressed, detailed list of sub-sector specific and cross cutting interventions, the intervention type, implementation timelines, and implementation partners are included in Annex II. The interventions summary is found below in Figure 55.

Figure 55: List of interventions across, intervention type and sub-sector addressed across the five thematic areas




Policy, regulatory, and legal
Set minimum market price for strategic agricultural commodities, conduct frequent price assessments, and identify alternatives to manage market surplus
Review & develop new performance-based investment incentives for manufacturers focusing on fibre, yarn, fabric, trim, & accessories production
Create incentives for cotton breeders, value chain developers, and researchers, to produce high-quality varieties
Create alignment among all incentive-offering organs to easily identify the incentives set for items and which organs are incentivizing them
Impose trade quota on selected goods with local competitive production capacity and those that do not affect consumer demand focusing on garment items
Implement Proclamation No. 329/2003 responsible to control anticompetitive practices by establishing a responsible commission & synergizing fragmented roles of anticompetitive trading control across different implementing organs
Revise the excise tax proclamation on rethreaded tyre based on clear and critical evidence
Develop a scrap collection, filtration, and dissemination policy and regulatory framework
Develop an automotive industry policy
Revise public procurement procedures to enforce mandatory purchase of competitive local products
Develop performance-based incentives and financial support for manufacturers to import critical chemicals and other inputs
Review existing types of taxes imposed across processed goods and erase double taxation areas for manufacturers based on priority commodities
Establish a regular, transparent, and coordinated audit for metal and engineering manufacturers
Revise the labor law to create equal & conducive working relationships; incentivize industries to establish a functional liaising structure
Revise minimum wage regulation and set wages on a productivity basis
Set manufacturer credit provision quota for those engaged priority goods producers and monitor the allocation of credit disbursement and reimbursement
Revise the minimum interest rate for working capital reimbursement amount and period according to the manufacturing lifecycle
Enforce, regulate, and establish a transparent procedure to implement the NBE Directive No. FXD/77/2021 to monitor forex allocation all banks
Revise the 20/80 policy to increase the percentage of forex allocation gained from their own export for exporting manufacturers
Strengthen association in terms of relationships, systems, and technical /managerial capabilities; lobby to establish a con/federation
Establish advisory teams composed of associations to establish a consultative relationship between tax and price-setting entities and manufacturers
Revise Article 814/2013 of 2006 Proclamation to permit manufacturers as primary buyers of raw leather inputs
Subsidize initial prices of RHS to incentivize society to properly handle the materials during slaughtering
Restrict import of finished leather via a quota system (to be considered when challenges of tanneries is minimized)
Implement a quota production system administered by associations
Establish associations at micro, small, medium and large-scale levels for leather and leather product industries
Fiscal and investment
Expand commercial farming practices (by encouraging local and FDI investment) via targeted incentives and out-grower schemes that are directly linked to manufacturers
Expedite EIH's investment attraction efforts to promote joint ventures in which foreign companies can invest in existing producers, especially sugar factories
Develop an investment promotion strategy for selected value chains (focusing on cotton, other fibres, and diversified product mixes) to attract FDI into the value-chain
Attract new investments that have the potential to develop integrated value chains and bring advanced technologies to produce diversified textiles
Evaluate and reframe export incentives for import substitution goods across the value chain and set up an evaluation system to assess impact
Study local raw material to identify the potential reserve of polymers, chemicals, and metals, and design a program including investment promotion to establish linkages
Attract FDI and public investment including JVs to develop input production and facilitate fair competition for large-scale pulp, rubber, LABSA, processing
Attract new investment for auxiliary good production
Develop a strategy and attract investment to produce circuit PCB and other strategic products
Capacitate and incentivize primary RHS collectors via finance, training, and awareness creation to enhance the quality and preservation of RHS
Incentivize establishment of ranches and improved husbandry practices to ensure large-scale RHS and livestock production
Attract new investment (FDI, JD, local, etc.) to produce components and parts for CKD and SKD
Set up a tech upgrading fund to share the capital cost of industries producing priority commodities using outdated technologies
Systems and infrastructure design
Promote aggregation & warehouse receipt system for priority food and beverage commodities
Establish textile and apparel industrial clusters based on geographic potential of regions to substitute imports of upstream value
Evaluate and revise universities and TVET curriculum with relevant content with strong involvement of the private sector and the industry research and development centres
Design a program to schedule regular inspection and consultation on Good Manufacturing Practice for strategic commodities between the FDA and manufacturers including M&E systems to assure performance against established standards
MoI to establish a sector specific one-window technology-based service across relevant customs offices at the Federal, Regional, and city level
Revise the government performance-based assessment (business scorecard) in line with service provided to manufacturers
Prioritize selected manufacturers producing priority commodities for competitive electricity tariff rates to lower production costs
Establish a dedicated and uninterrupted power transmission lines to heavy industries (chemical and construction input, metal and engineering) and strategic commodity producers across the 3 sectors
Provide integrated and reliable infrastructure to clustered service/area for local manufacturers producing priority commodities
Strengthen cluster development efforts and create awareness on clustering systems to small, medium, and large-scale producers including associations
Prioritize manufacturers producing priority commodities for the supply of digital infrastructure and services
Production, productivity, and capacity building
In collaboration with MoA, develop a strategy and mid-to-long-term program to produce natural fibres – cotton
Create awareness about competitive products, latest technologies, and recyclability of plastic and paper; standardize recycled goods
Design awareness creation programs for manufacturers of priority commodities on existing incentives
Promote practical training or apprenticeships with manufacturers for priority commodities' production
Develop a strategy for auxiliary industry development for value chains in manufacturing
Develop a strategic plan for training & technology transfer for customs commission experts
Develop a long-term strategy that guides the policies and incentives applied for the chemical and construction inputs and metal & engineering sub-sectors
Design a program to support manufacturers of strategic products in business management
Conduct a capacity gap assessment, and design and roll out a capacity-building program for key sectoral leadership
Strengthen research institutes with the appropriate laboratories, tech, and equipment
Market access
Develop a value chain alliance for market linkage between suppliers and buyers to encourage the purchase of local priority agro-processed products
Include priority goods under the ECX one-window marketing syste
Develop national, regional, and city-wide campaign programs to reach communities and buyers to use locally manufactured goods
Strengthen ESI and ECAE food testing/laboratory, certification, and quality assurance systems for manufacturers supplying to local markets
Prepare exhibitions and trade fairs to promote products; encourage local buyers to use local goods
Promote competitiveness in SMEs through linkages with medium and large manufacturers and capacitate them through facilities and incentives
Develop product branding, diversification, and traceability to enhance local competitiveness

6.2 Strategic intervention implementation tools

The interventions proposed are based on selected implementation tools These tools include incentives, training, government support, tariff protection, quota, coordination, and marketing platforms and information systems, that can help manufacturers improve their productivity, quality, and competitiveness. By using a combination of these tools, the strategy seeks to ensure a smooth and effective implementation of the interventions and to achieve the desired outcomes for the sector. Descriptions of these tools are included below and refer to the interventions the complete list of which is included in Annex II.

Table 14: List of intervention implementation tools

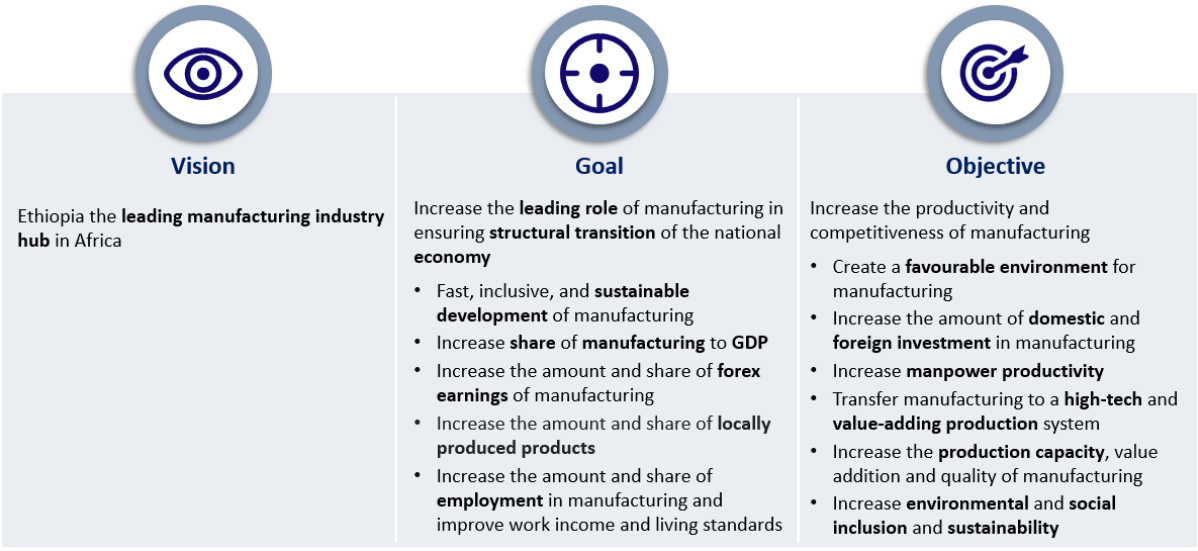
Implementation tools	Description
Incentives	Performance-based financial or non-financial support system to manufacturers of selected competitive commodities to support current production and enhance competitiveness. For example, intervention (7) proposes to develop new performance-based investment incentives for manufacturers focusing on fibre, yarn, fabric, trim, and accessories manufacturing in Ethiopia.
Capacity building	Skill development, innovation, and knowledge transfer for manufacturers, bureaucrats, and decision to improve productivity, quality, and national production competitiveness. For example, intervention (40) proposes to capacitate university/TVET students by promoting practical training or internships/apprenticeships with manufacturers.
Government support	Regulatory guidance, legal enablers, facilitation, coordination, oversight and monitoring of service deliver to manufacturers for creating access to means of production, and markets. For example, intervention (56) prompts the MoI to establish a sector-specific one-window technology-based service across relevant customs offices at the Federal, Regional, and city levels to ensure the availability of expert support at customs offices.
Tariff protection	Time-bound tax and duty imposition and monitoring to protect priority domestic industries. For example, intervention (14) proposes to impose trade quotas on selected goods with local competitive production capacity and those that do not affect consumer demand to encourage local manufacturers to focus on garment items; on the other hand, intervention (59) advocates for the provision of competitive electricity tariff rates to lower production costs of manufacturers.
Quota	Set a maximum amount of an imported product that can enter to the country within a specified timeframe (the product selection can be based on the substitute goods for the 93 competitive products identified under this strategy document). For example, intervention (22) proposes to restrict the import of finished leather through a quota system.
Marketing and information system	Create channels, networks, systems, and digital platforms and marketing campaigns for manufacturers to promote access to markets including encouraging manufacturers to use branding strategies and traceability systems. For example, intervention (24) proposes to prepare national exhibitions and international trade fairs for manufacturers to promote their products.
Awareness and advocacy	Fostering awareness and championing local products through community, state, and individual engagement, aiming to reshape consumer outlook towards domestically manufactured goods and reduce

	dependence on imports by revisiting public procurement protocols and advancing the endorsement and support for the utilization of local resources. For example, intervention (36) proposes to revise public procurement procedures to enforce mandatory procurement of competitive local products by public institutions to discourage imports unless products are unavailable or not up to standard
Price setting and subsidy	Set minimum market prices and subsidies the manufacturing of competitive and intermediate capital goods to overhaul the supply in the market of oversupply or low demand to stabilize prices or support producers through meticulous market assessment and planning. For example, intervention (19) proposes subsidizing the initial prices of RHS to incentivize society to properly handle the materials during slaughtering.
Private and public investment promotion	Promoting PPP investments by attracting domestic and/or foreign investment and facilitating partnerships between public and private entities, to finance, develop, or operate manufacturing projects through joint ventures and other investment schemes to boost the strategic/intermediate goods production. For example, intervention (53) proposes to attract new investment (FDI, JD, local, etc.) in the production of auxiliaries – e.g., accessories, components, and packaging materials.

6.3 Alignment with the new Manufacturing Sector Policy and Ethiopia Tamrit Movement

The Ministry of Industry has drafted a new manufacturing industry policy which addresses key challenges of the previous policy and aligns with national and sectorial developmental goals. With the vision of making Ethiopia the leading manufacturing industry hub in Africa, the new policy is designed to facilitate a structural transition of the economy to increase the productivity and competitiveness of the manufacturing industry.

Figure 56: Manufacturing policy vision, goal, and objective



The 71 interventions outlined to substitute imports of competitive commodities fall under the four key result areas of the new manufacturing industry policy. 44 interventions directly align with the projects outlined in the policy while the remaining 27 interventions can be categorized under the four key result areas for a coordinated implementation of the interventions under the coordination of the Ethiopia Tamrit movement. The detailed mapping of projects under the new manufacturing sector

policy with the 44 import substitution interventions is included in Annex III. The 27 interventions that are categorized under the policy programmatic areas are also included in Annex IV.

Figure 57: Number of import substitution interventions that directly align with the policy project areas

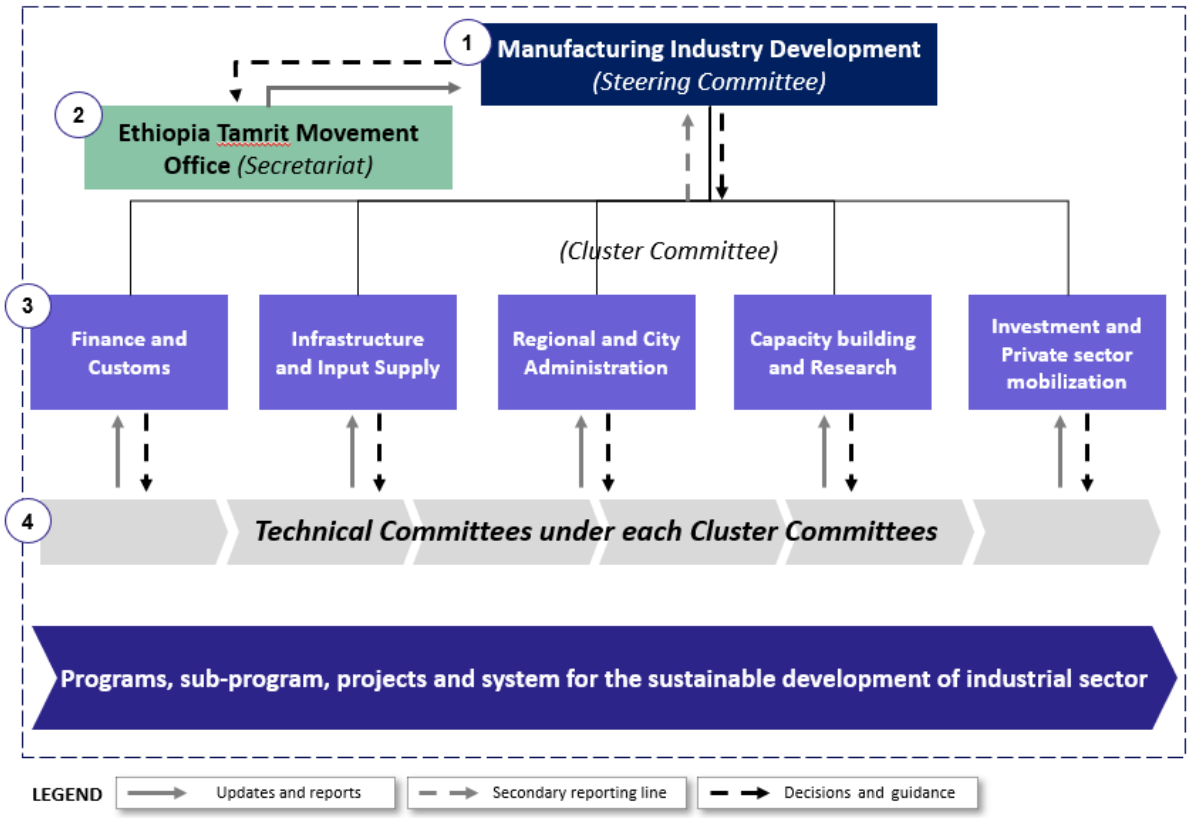
Key result areas	Programs and no. of aligned interventions	
Increase production and productivity	Increase raw material resource development	16
	Accessible infrastructure and government services	5
	Increasing the supply of finance to support the manufacturing industry	2
	Human resource development	2
	Production oriented industrial cluster	1
	Development of domestic manufacturing industry	3
	Result oriented incentive	8
Increase technology utilization and innovation	Research & Development and technology adoption enhancement	2
Increase the share of the manufacturing industry in export and import substitution	Increasing strategic import substitution production	3
	Expanding export products basket	-
Establish an inclusive and sustainable manufacturing system	Sustainable and green manufacturing industry development	1
	Inclusive manufacturing industry development	-

2 legal framework interventions are also prioritized in this key result area

6.4 Import Substitution Strategy Coordination and M&E Framework

Ethiopia Tamrit Movement will be the anchor tool to coordination and governance to implement the import substitution strategy by building on the current structure to coordinate Ethiopia Tamrit initiatives and the new manufacturing sector policy projects. The strategy will be guided by a manufacturing sector development Steering Committee chaired by the Minister of Ministry of Industry to lead the overall leadership, guidance, plan approval, monitoring and coordination of all activities. The Ethiopia Tamrit Movement office will build a stronger implementation focus and coordination and establish strong central controls to ensure performance and operational compliance of all interventions identified. Cluster committees have been organized across five thematic areas, i.e., finance and customs, infrastructure and input supply, regional and city administration, capacity building and research, and investment and private sector mobilization. Based on direction provided by the steering committee, these cluster committees will ensure the implementation of interventions under their remit by coordinating, planning, and monitoring the interventions. Finally, technical committees under specific cluster committees consisting of technical professionals will lead the implementation of one or more interventions/projects and address specific issues that require technical work.

Figure 58: Ethiopia Tamrit Movement coordination and governance framework



The Ethiopia Tamrit Office team will manage the coordination and governance of the import substitution strategy along with the new manufacturing sector policy across multiple actors at all levels. The Delivery Unit (DU) of the Office will also lead the coordination and governance structure to accelerate implementation and meaningfully advance strategic objectives. The unit will lead coordination efforts with key stakeholders and developmental partners to discuss and align the scope of engagement, roles, responsibilities, and expectations. The unit will also support the teams in areas where data and analytics are required to ensure timely project delivery and maintain tracking, monitoring, and reporting routines with cluster/technical committees and implementing partners. The unit will also have a dedicated M&E and quality assurance team to support annual planning and performance evaluation activities, including the use of planning and reporting templates, and coordinate the planning, tracking, and reporting of all activities on a digital M&E system.

An effective monitoring and evaluation (M&E) system is crucial to ensure the successful implementation of the import substitution strategy. The M&E system serves multiple purposes, including defining the future design and process of implementation, as well as coordinating its alignment with the new manufacturing sector policy and the Ethiopia Tamrit Movement. The framework for this strategy will be established during the detailed implementation planning phase, which involves detailing the project's activities, scope, implementers, prioritization, sequencing, resource requirements, targeting, and timeline. In addition, clear indicators for outputs, outcomes, and impacts will be identified, along with the necessary M&E activities at different levels of implementation. Once these activities are completed, a comprehensive M&E framework and action plans will be developed, encompassing data collection and analysis, reporting, and dissemination plans. The framework for this strategy will be designed in accordance with the ongoing development of the Ethiopia Tamrit M&E framework.

6.5 Resource Mobilization for Priority Initiatives

A well-defined resource mobilization strategy is crucial for the successful implementation of any strategy. This strategy takes a proactive approach by aligning interventions with existing initiatives, leveraging allocated budgets specified in the Ethiopia Tamrit movement's three-year plan. It also identifies additional areas for further budget development, ensuring comprehensive resource allocation. By effectively utilizing existing resources and exploring new avenues for funding, the strategy maximizes efficiency and enhances the overall effectiveness of the interventions. With a focus on strategic planning and resource allocation, this approach sets the stage for successful implementation and the realization of desired outcomes.

Firstly, an estimated amount of USD 18,753,904.18 has been identified to implement interventions that align their resource requirements with the budgetary allocations specified in the Ethiopia Tamrit movement's three-year initiatives plan. This alignment ensures that the implementation of these interventions is in line with the overall strategic objectives of the movement. The detailed budget breakdown aligning each intervention of the strategy with project areas in Ethiopia Tamrit is included in Annex V of this strategy document. A detailed implementation plan will be developed in the next phase for interventions that do not directly align with the existing Ethiopia Tamrit initiatives but fall within the broader programmatic areas identified under the Movement.

Table 15: Resource requirements of interventions aligned with the Ethiopia Tamrit projects

ETM Programs	3-Year Budget *(in ETB)*				Budget *(In USD)*
	2016	2017	2018	Total	
Total Budget	351,723,683	351,510,746	340,262,806	**1,043,497,235**	**18,753,904.18**
Increase raw material resource development	206,753,845	213,100,209	186,932,297	**606,786,350**	**10,905,264.23**
Accessible infrastructure and government services	8,261,002	4,923,998	880,000	**14,065,000**	**252,778.50**
Increase the supply of finance to support the manufacturing industry	3,899,500	992,750	-	**4,892,250**	**87,924.32**
Human resource development	621,720	725,340	725,340	**2,072,400**	**37,245.51**
Production oriented industrial cluster	44,000,000	33,000,000	33,000,000	**110,000,000**	**1,976,938.12**
Development of the domestic manufacturing industry	20,087,210	19,036,710	18,752,580	**57,876,500**	**1,040,165.99**
Result-oriented incentive	1,035,418	7,695,366	27,936,216	**36,667,000**	**658,985.36**
R&D and technology adoption enhancement	49,545,813	57,559,506	57,559,506	**164,664,825**	**2,959,383.36**
Increase strategic import substitution production	16,204,675	13,948,867	13,948,867	**44,102,410**	**792,615.78**
Sustainable and green manufacturing industry development	1,314,500	528,000	528,000	**2,370,500**	**42,603.02**

To effectively coordinate government support and allocate resources, the strategy recognizes the importance of the five national cluster structures established under the movement. These cluster structures serve as valuable mechanisms for guiding and overseeing the implementation of the strategy, ensuring that resources are allocated efficiently and effectively. Government bodies such as the Ministry of Industry and the Manufacturing Industry Development Institute will leverage these cluster structures to coordinate their efforts and ensure successful execution of the strategy.

To further enhance industry development, the strategy emphasizes the need to maximize the potential of strategic resources. The goal is to foster knowledge transfer from these sectors to other areas of the economy, enabling the development of value chains for strategic commodities. By leveraging upstream, downstream, and horizontal linkages with resource extraction and processing activities, the government and the private sector can jointly undertake long-term projects that enhance resource extraction and processing capabilities. This collaborative approach contributes to the growth of a learning economy and a manufacturing society. While a specific budget for the strategic areas has not been developed for these areas yet, the detailed resource requirement plan will be developed during the value chain exploration and study period. This ensures that resource allocation for these areas is based on a comprehensive understanding of their needs and potential. By conducting thorough assessments, the strategy aims to establish a solid foundation for resource mobilization in these strategic sectors.

6.6 Anticipated Implementation Risks and Mitigation Measures

A high-level and comprehensive analysis of potential risks associated with implementing the interventions are identified. Eight risk areas are outlined covering various aspects such as policy and regulatory challenges, ownership and collaboration issues, capacity-building risks, financial constraints, security issues, corruption factors, and performance monitoring issues.

To further prioritize and address these risks effectively, a severity ranking was assigned to each risk based on five criteria: the impact on the objectives of the strategy, likelihood of occurrence, timeline for mitigation, complexity of mitigation, and sensitivity or tolerance of changing political and economic dynamics. This systematic ranking approach allowed for a clear understanding of the critical risks that could significantly impact the success of the interventions. Consequently, targeted mitigation measures were identified to ensure a smooth and successful implementation process. By proactively addressing these risks through the defined mitigation measures, the strategy aims to build a resilient framework and maximize opportunities for positive outcomes. The summary of the list of risks, severity rankings, and mitigation measures is included in the below table. The detailed risk definitions, assessment criteria, and mitigation measures are discussed in Annex VI.

Table 16: Summary of risks, severity, and mitigation measures

Risk	Severity	Mitigation Measures
Effective collaboration		Leverage the Ethiopia Tamrit platform for collaborative engagement, inclusive dialogue among stakeholders, and transparent sharing of information to build trust
Policy and regulatory enforcement		Create a comprehensive plan with defined timelines and responsibilities, involve relevant stakeholders early for smooth execution, regularly review progress, adapt to changes in trade

		agreements, and collaborate with industry associations to address regulatory challenges
Ownership		Clear communication of objectives, benefits, and potential impacts to stakeholders, early engagement, training for leaders, and securing strong government backing to implement intervention and deliver
Finance		Prioritize quick-win interventions under the Ethiopia Tamrit initiative, conduct detailed budget planning for each intervention, and explore alternative funding sources, including public-private partnerships and international development assistance, while ensuring forex access for priority initiatives
Security		Maintain peace and security, especially in areas producing inputs and areas with manufacturing clusters Maintain transparency and openness, address social and economic inequalities, and promote inclusivity and social cohesion by engaging in dialogue and collaboration with relevant stakeholders
Implementation skill gap		Collaborate with institutions, bilateral and multilateral organizations and private institutions to build public sector skill capacity for a short to medium term.
Corruption		Ensure accountability, promote transparency, ethical standards, and strong governance, implement oversight measures, and conduct independent audits to assess the strategy's progress and identify areas for improvement
Timely measurement of performance		Create a comprehensive M&E framework with clear indicators and milestones, regularly assess interventions' progress with data-driven adjustments, and maintain transparency and accountability for accurate impact tracking

7 ANNEX

1. Annex I: List of priority commodities, proposed substitution timelines, and remark

i. Food and beverage sub-sector priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
Food and beverage	Grains	Malt										Production is well-adopted by farmers due to favorable environmental conditions, there are well-experienced malt processing-factories including foreign investors with technologically well-advanced value-chain and good production capacity utilization.
Food and beverage	Grains	Wheat – pasta, macaroni										There is suitable land for durum/semolina wheat production (but insufficient to fulfil demand), skilled and experienced manpower with Italian technology adoption, and increased number of processors available.
Food and beverage	Sugar	Sugar, confectionary										There are numerous sugar factories with excess amount of land coverage in each site and high government support. The main limitations are long sugarcane yield period and utilization of obsolete machinery with high cost to replace them.
Food and beverage	Oilseeds	Edible oil										Raw materials are available, large and advanced edible oil processors are well-established (in addition to small and medium processors) currently operating below capacity, it is a government priority commodity. The main challenge is seasonal and unbalanced raw material availability.
Food and beverage	Fruits and vegetables	Fruit juice, mango pulp, mango concentrate										There is suitable environment for fruit production and processing with numerous qualified plant breeding researchers and research is available. The main challenge is the long time it takes time from variety

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
												selection and adoption to maturity of seeds for further processing.
Food and beverage	Food preparations n.e.s[363]	Food preparations*										Suitable for new investors as the market is not saturated, several opportunities are present such as processing of yeast, baking powder, instant yeast, leavening agent, bicarbonate, etc. Processors are also operating below capacity presenting an opportunity to close the gap.
Food and beverage	Grains	Maize, corn flour, corn flakes, starch, snacks										Raw material is sufficiently available, and the product is suitable for new investors as the processing market for maize flour, starch, corn flakes, etc. is not saturated.
Food and beverage	Grains	Bakery products, biscuits, cookies										Raw materials are available (mainly wheat), and there are several manufacturers with the skills and technology. The main challenge here is that processors are operating below capacity in part due to insufficient quantities or raw materials.
Food and beverage	Grains	Wheat or meslin flour										Production is well-adopted by farmers with great climatic condition, high government interest, high demand for wheat and flour products; the main challenge is seasonal wheat production and shortage of wheat.
Food and beverage	By products	Animal feed										There is good potential to increase the production of animal feed from milling and edible oil by-products. With the growing demand for feed due to increasing animal fattening initiatives, the product also has strong job creation potential.
Food and beverage *(expert input)*	By products	Enriched foods (plumpy nut, CSB+, CSB++, Famix)										Raw materials are available locally (aside from premix – vitamins and minerals) and there is high demand of the commodities with mandatory national food fortification

[363] Note (*) - baking powder, yeast, and other leavening compounds; peanut butter; packaged tea, including instant; ground spices; and vinegar and cider

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
												policy. Experienced corn-soya blend manufacturers are also available in the sector.

ii. Textile and apparel sub-sector priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
Textile and apparel	Apparel (Knitted)	Trousers, overalls, shorts										Raw materials are somewhat available. There is good experience in producing these items although manufacturers are operating below capacity. The main challenges are limited production size and product mixes compared to the huge demand.
Textile and apparel	Apparel (Knitted)	Men's or boy's underwear (briefs, boxers, pants, etc.)										>>
Textile and apparel	Apparel (Knitted)	Babies' or infant garments such as jumpsuits, rompers, tank tops, and complete garments (3pc, 5pc, 7 pc, etc) made from cotton and synthetics										>>
Textile and apparel	Apparel (Knitted)	T-shirts, singlets, tank tops, and other sleeveless upper wears made from cotton textile materials										>>
Textile and apparel	Apparel (Knitted)	Long or short stockings, socks, and similar articles of stockings										>>
Textile and apparel	Apparel (Woven)	Night dresses and pyjamas made from woven fabrics										There is good experience of garment processors in sewing these apparels, but most of the factories are CMT (Cut, Make, Trim) factories due to lack of fabrics to expand operation. If fabric production problem is addressed, garment manufacturing of these type will be inevitable.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Textile and apparel	Apparel (Woven)	Suit-type jacket and blazer not made from wool										>>
Textile and apparel	Apparel (Woven)	Men's or boy's shirts made from synthetic materials										>>
Textile and apparel	Apparel (Woven)	Scarves, shawls, and similar articles worn around the neck or shoulder made from synthetic sources										>>
Textile and apparel	Apparel (Woven)	Garments made from nonwovens										>>
Textile and apparel *(expert input)*	Textile (Fibres)	Artificial filament tow										Although these products are critical in the value chain, there is a huge gap in their production. Though it may not be an immediate priority to substitute these products in the short-term, synthetic textile substitution is critical to remain competitive and to substitute multiple textile products. Skill building and technology adoption/transfer will demand extra time and effort for the government to attract new investment in the field; however, it remains pertinent as the products supports downstream value chain.
Textile and apparel *(expert input)*	Textile (Fibres)	Staple fibres of polyesters not carded, combed, or otherwise processed for spinning										>>
Textile and apparel *(expert input)*	Textile (Fibres)	Cotton waste (excluding yarn waste, thread waste, and garneted stock)										Raw materials and established manufacturers are domestically available with potential to grow. If the government remains committed towards cotton development and multidimensional support is given to developing the value chain, it is possible to boost cotton growth both in quality and quantity in the short term.
Textile and apparel *(expert input)*	Textile (Fibres)	Artificial acetate filament tow										Although these products are critical in the value chain, there is a huge gap in their production. Though it may not be an immediate priority to substitute these products in the short-term, synthetic textile

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
												substitution is critical to remain competitive and to substitute multiple textile products. Skill building and technology adoption/transfer will demand extra time and effort for the government to attract new investment in the field; however, it remains pertinent as the products supports downstream value chain.
Textile and apparel *(expert input)*	Textile (Fibres)	Cotton neither carded nor combed										Raw materials and established manufacturers are domestically available with potential to grow. If the government remains committed towards cotton development and multidimensional support is given to developing the value chain, it is possible to boost cotton growth both in quality and quantity in the short term.
Textile and apparel *(expert input)*	Textile (Yarn)	Textured polyester filament yarn										Although these products are critical in the value chain, there is a huge gap in their production. Though it may not be an immediate priority to substitute these products in the short-term, synthetic textile substitution is critical to remain competitive and to substitute multiple textile products. Skill building and technology adoption/transfer will demand extra time and effort for the government to attract new investment in the field; however, it remains pertinent as the products supports downstream value chain. It will be a must to substitute at least synthetic yarn products by importing virgin or recycles manmade fibres if it is not possible to synthesize it domestically.
Textile and apparel *(expert input)*	Textile (Yarn)	Filament yarn of polyester										>>
Textile and apparel *(expert input)*	Textile (Yarn)	Dyed folded or cabled yarn made of acrylic or modacrylic staple fibres										>>
Textile and apparel *(expert input)*	Textile (yarn)	Folded or cabled yarn containing polyester staple fibres										>>

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Textile and apparel *(expert input)*	Textile (yarn)	High-tenacity filament yarn of polyesters										>>
Textile and apparel *(expert input)*	Textile (yarn)	Sewing thread of synthetic filaments										>>
Textile and apparel *(expert input)*	Textile (woven fabric)	Woven fabrics made ≥ 85% textured and non-textured polyester fibre										This is a critical input in the textile value chain (to produce garments of polyester). Synthetic woven fabrics of polyester should be manufactured at least by importing fibres of the materials as it is not possible to manufacture the fibre due to limitation of resources.
Textile and apparel *(expert input)*	Textile (woven fabric)	Woven fabrics made from different high-tenacity man-made fibres										>>
Textile and apparel *(expert input)*	Textile (woven fabric)	Dyed textured woven fabric made ≥ 85% textured polyester fibre										>>
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted, crocheted, or piled fabrics other than cotton and man-made sources.										Partial-knitted fabric with natural fibre sources can be substituted in the short term immediately after or along with bulk cotton and other natural fibre production as raw materials will be sufficiently available.
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted pile fabrics made from man-made fibres										Synthetic fabric production or blends of synthetic fibre can be realized after or along with synthetic yarn production or substitution.
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted fabrics containing elastomeric yarn										Partial-knitted fabric with natural fibre sources can be realized in the short term immediately after or along with bulk cotton and other natural fibre production as raw materials will be sufficiently available.
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted long pile fabrics										>>
Textile and apparel *(expert input)*	Textile (knitted fabric)	Printed knitted or crocheted synthetic fabrics containing elastomeric yarn										Synthetic fabric production or blends of synthetic fibre can be realized after or along with synthetic yarn production or substitution.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Textile and apparel *(expert input)*	Textile (knitted fabric)	Dyed knitted or crocheted synthetic fabrics containing elastomeric yarn										>>
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted looped pile fabrics										Partial-knitted fabric with natural fibre sources can be realized in the short term immediately after or along with bulk cotton and other natural fibre production as raw materials will be sufficiently available.
Textile and apparel *(expert input)*	Textile (non-woven fabric)	Nonwovens made from man-made fibres with GSM 25-150										It is possible to manufacture this product in parallel with synthetic fibre production or synthetic yarn and fabric manufacturing.
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made with other types of techniques including tufting, needlefelt, hooked rug, etc										Although carpets are usually produced using imported yarn so far, if production of yarns and fibres is strengthened here, it can be substituted in the medium to long term along with those inputs.
Textile and apparel *(expert input)*	Textile (special fabric)	PVC-coated textile fabrics										It is possible to manufacture this product in parallel with synthetic fibre production or synthetic yarn and fabric manufacturing.
Textile and apparel *(expert input)*	Textile (special fabric)	Tyre cord fabrics										>>
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made from animal hair fibres										Although carpets are usually produced using imported yarn so far, if production of yarns and fibres is strengthened here, it can be substituted in the medium to long term along with those inputs.
Textile and apparel *(expert input)*	Textile (special fabric)	Narrow woven fabrics with a width of ≤ 30cm with or without elastane/rubber yarn										Narrow width woven fabrics are essential to manufacture some garments. These fabrics can be manufactured at least by importing fibres of this material as it is not possible to manufacture these fibres in the short to medium term due to resource and facility limitations.
Textile and apparel *(expert input)*	Textile (special fabric)	Coated textile fabrics with plastics										It is possible to manufacture this product in parallel with synthetic fibre production or synthetic yarn and fabric manufacturing.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
Textile and apparel *(expert input)*	Textile (special fabric)	Narrow woven fabrics with a width of </= 30cm and not made with cotton or man-made fibres,										Narrow width woven fabrics are essential to manufacture some garments. These fabrics can be manufactured at least by importing fibres of this material as it is not possible to manufacture these fibres in the short to medium term due to resource and facility limitations.
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made from plant fibres or coarse animal hair fibres										Although carpets are usually produced using imported yarn so far, if production of yarns and fibres is strengthened here, it can be substituted in the medium to long term along with those inputs.
Textile and apparel *(expert input)*	Textile (special fabric)	Open lightweight woven fabric made from cotton and used for medical purposes										Open lightweight woven fabrics such as gauze can be easily substituted along with or after enhanced cotton production.
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made with knotting										Although carpets are usually produced using imported yarn so far, if production of yarns and fibres is strengthened here, it can be substituted in the medium to long term along with those inputs.
Textile and apparel *(expert input)*	Textile (special fabric)	Technical textiles										Technical textiles require extra skills and technology; hence substitution may not be achieved in the short-term. However, as they are inputs or accessories to other sectors (e.g., seat covers, seat belts, car interiors, etc.), they have significant potential to save costs and support other value chains in the long-term.
Textile and apparel *(expert input)*	Textile (special fabric)	A braided fabric made by inter-weaving three or more strands, strips, etc										>>
Textile and apparel *(expert input)*	Apparel (Knitted)	T-shirts, singlets, tank tops, and other sleeveless upper wears made from textile materials other than cotton										Raw materials are somewhat available. There is good experience in producing these items although manufacturers are operating below capacity. The main challenges are limited production size and product mixes compared to the huge demand.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Textile and apparel *(expert input)*	Apparel (Knitted)	Sports t-shirts and sleeveless t-shirts, pullovers with hood or without hood, cardigans (sweater jackets) excluding wool and fine animal hair										>>
Textile and apparel *(expert input)*	Apparel (Knitted)	Sports t-shirts and sleeveless t-shirts, pullovers with hood or without hood, cardigans (sweater jackets) with wool and fine animal hair										>>
Textile and apparel *(expert input)*	Apparel (Knitted)	Different babies' or infant garments such as jumpsuits, rompers, tank tops, complete garments (3pc, 5pc, 7 pc, etc.) excluding cotton and synthetics sources										>>
Textile and apparel *(expert input)*	Apparel (Knitted)	Sport trouser and jacket set										>>
Textile and apparel *(expert input)*	Apparel (Knitted)	Jacket-like garments										>>
Textile and apparel *(expert input)*	Apparel (Woven)	Trousers, shorts, overalls, or overall made from woven fabric										There is good experience of garment processors in sewing these apparels, but most of the factories are CMT (Cut, Make, Trim) factories due to lack of fabrics to expand operation. If fabric production problem is addressed, garment manufacturing of these type will be inevitable.
Textile and apparel *(expert input)*	Apparel (Woven)	Sports trousers and jacket set made of synthetic										>>
Textile and apparel *(expert input)*	Apparel (Woven)	Dress made from synthetic materials										>>
Textile and apparel *(expert input)*	Apparel (Woven)	Jacket-like garments made from woven fabric										>>
Textile and apparel *(expert input)*	Apparel (Woven)	Scarves, shawls, and similar articles worn around the neck or shoulder made from wool, silk, silk waste, etc.										>>

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Textile and apparel *(expert input)*	Apparel (Woven)	Sport trousers and jacket set made of woven fabrics										>>
Textile and apparel *(expert input)*	Apparel (Woven)	Trousers, shorts, overalls, or overalls, made from woven fabric of cotton										>>

iii. Leather and leather products sub-sector priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Leather and leather prod.	Footwear	Leather footwear (leather casual shoe and luxury shoe)										Raw material and technology availability with most local shoe producers producing leather shoes, strong government procurement for student and military shoes; main issue is existing companies are operating below capacity and luxury footwear needs quality, technology, and skill improvement.
Leather and leather prod.	Footwear	Other footwear (ladies' shoe, non-leather shoe, sport shoe, safety shoe)										Availability of sport shoe manufacturers that can substitute domestic demand partially given financial support and raw material availability, current processors operating below capacity, FDI interest to enter the market; main challenges are insufficient non-leather raw material availability and time it may take to build skills and technologies and change attitudes for local products.
Leather and leather prod.	Footwear	Other footwear of rubber or plastic										High demand for plastic footwear with technology and skills somewhat available; main challenge is the lack of plastic input suppliers and adequate technology and skills.
Leather and leather prod.	Leather product	Leather goods										Raw material and technology availability with large amount of investment in the sector with expanding markets.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*										Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
Leather and leather prod. *(expert input)*	Leather product	Non-Leather goods											High demand for non-leather goods with some established producers; main challenge is the lack of synthetic/non-leather input suppliers, and time it may take to attract investment or expand production of manufacturers that commonly produce leather to produce non-leather goods.
Leather and leather prod. *(expert input)*	Footwear	Shoe upper											Inputs are locally available (competent fabric, mesh, and textiles). If strong linkages are created between fabric producers and non-leather manufacturers, the product can be substituted in the short-term.
Leather and leather prod. *(expert input)*	Footwear	Soles, lasts, and moulds											FDI companies have already started producing accessories and components for the local market. There is limited technology and skill available now so it may take time to build skills and transfer technology to expand domestic production.
Leather and leather prod. *(expert input)*	Accessories	Other accessories and components											FDI companies have started to produce accessories and components for the local market and there is high investment interest by other FDI's to produce for the local market.

iv. Chemical and construction inputs sub-sector priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*										Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
Chemical and construction	Chemicals	Soaps and detergent											Most semi-processed inputs and raw materials found locally, strong domestic production with high demand, production is almost covered by the domestic market with minor support needed to substitute imports.
Chemical and construction	Chemicals	Paints and varnishes											High demand with well-established manufacturers available, technology and skills are somewhat available; the main challenge is inputs are imported from abroad

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
												and will require new investment to produce domestically which may take time.
Chemical and construction	Chemicals	Toiletries										Raw materials are available to substitute imports in the medium term for common product types; new investment is required to substitute import of special product types in the long-term.
Chemical and construction	Chemicals	Solvents and thinners										With a growing demand of the paint and varnish industry, it is also pertinent to manufacture solvents and thinners. The main challenge is inputs are imported from abroad and will require investment to produce domestically which may take time along with the paint industry.
Chemical and construction *(expert input)*	Chemicals	Basic chemicals										The product is a critical catalyst to run other sectors; however, due attention is needed as it requires huge investment from resource potential identification to operation, local manufacturers are also operating below capacity.
Chemical and construction *(expert input)*	Chemicals	Adhesive and other construction chemicals										Adhesive production can be strengthened in the medium term; however, the sector needs advanced technology and new investment which may take time to fully substitute.
Chemical and construction	Plastic and rubber	Other articles of plastic										In the short to medium-term, substitution of products like shoe last is possible; however, in the mid-to-long-term, new investment is required to manufacture and substitute products like belt conveyors, clothing accessories, etc.
Chemical and construction	Plastic and rubber	Other plates of plastics, noncellular and not reinforced										Simpler products that do not require sophisticated technology or large investment such as polypropylene films can be replaced in the short-to-medium-term; however, products like PVC film, PET film, and other will

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
												require new investment attraction for substitution in the medium-to-long-term.
Chemical and construction	Plastic and rubber	Plastic tubes & fittings										Pipe <630 mm, fittings, and hose are produced domestically and can be substituted in the short term; however, pipes and fittings above 630 mm, special flange, artificial guts, etc. need new investment so substitution is possible in the medium to long-term.
Chemical and construction	Plastic and rubber	Other plastic plates, sheets etc.										As semi-finished raw materials are locally available, these commodities can be substituted in the short to medium term phase.
Chemical and construction	Plastic and rubber	Polyacetals										Although polyacetals are critical to manufacture intermediate inputs for several sectors such as gears and bearings for machines, valves and pumps for plumbing, etc. and have significant demand, the technology required is sophisticated requiring high investment capital which may take a long time to substitute.
Chemical and construction	Plastic and rubber	Other articles of vulcanized rubber										Domestic production of rubber products is currently very limited. As it is a highly demanded product, additional investment is required to substitution imports which can be achieved in the medium to long term.
Chemical and construction *(expert input)*	Plastic and rubber	Foam mattress										As the main bottleneck to manufacture this product is solved, existing companies can intensify their production to address the demanded volume.
Chemical and construction *(expert input)*	Plastic and rubber	Tyre and rethreaded tyre										Most of the resources to produce tyres are locally available and have the potential to substitute imports in the short run using existing industries and ongoing projects.
Chemical and construction *(expert input)*	Plastic and rubber	Ballpoint pen										There are several large industries invested in the production of this product; if the critical bottlenecks are solved and luxury design imports are limited.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Chemical and construction *(expert input)*	Plastic and rubber	Polypropylene bag										It is a highly demanded product as the country grows in terms of its agro-processing; yet, the industries are producing under capacity. Once the key bottlenecks in the value chain are addressed, pp bag for agro-processing can be substituted in the short-term. However, cement grade polypropylene bag production will require new investment, thus it can be substituted in the medium term.
Chemical and construction *(expert input)*	Plastic and rubber	Film packaging										The product is highly demanded and has the potential to cover current market demand if its key bottlenecks for production are addressed. However, as the agro-processing sector grows, its demand will inevitably increase highly therefore it will require new investment.
Chemical and construction *(expert input)*	Wood and furniture	Packing lids and containers										Substitution of these products can be achieved by gearing production towards demanded product types as the resource is available domestically. However, it requires moderate investment therefore substitution may be achieved in the short-to-medium term.
Chemical and construction *(expert input)*	Wood and furniture	Furniture and parts										Raw materials are available locally with manufacturers present at small, medium, and large scale. Therefore, the products can be replaced in the short run using ongoing projects and existing industries.
Chemical and construction *(expert input)*	Pulp and paper	Paper packaging/carton										As it is a key product to support that serves as an auxiliary input in other sectors, it should be prioritized; however, since raw materials are not available and is capital intensive to implement adequate technology, it needs new investment, so substitution is possible in the long-term.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Chemical and construction *(expert input)*	Pulp and paper	Female sanitary pads, diapers, and wipes										These products have hight demand due to daily use and to ensure the health and safety of citizens. Raw materials and manufacturers are also somewhat available; therefore, with additional support, the products can be substituted in the short-term.
Chemical and construction *(expert input)*	Pulp and paper	Pulp and paper										Pulp is the core input for paper and paper product production; therefore, its prioritization is critical. However, it requires new investment therefore it can be substituted in the medium-to-long term.
Chemical and construction *(expert input)*	Glass	Container glass										

v. Metal and engineering sub-sector priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Metal and engineering	Basic iron and steel	Structures and parts, of iron or steel										Raw materially are locally available with a lot of companies producing structural steel parts like doors, windows, scaffoldings, etc. Therefore, there is potential to substitute these products in the short to medium term.
Metal and engineering	Basic iron and steel	Aluminium bars										There are few companies producing these products from scrap and imported ingot. The new directive of Ministry of Finance favors the melting industries to get the scraps accumulated in government entities with lesser price. As the local demand is very high, it is hard to substitute shortly with existing capacity.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Metal and engineering	Basic iron and steel	Flat rolled iron, width > 600mm, clad										It is one of the very first products of iron ore after slab. It is the basic raw material for different engineering industries; for that its custom tariff is 0% when imported. To substitute it, we need to extract or process iron ore. As iron ore extraction project is a mega project, potentially more expensive than the Grand Ethiopian Renaissance Dam, it is not expected to be started shortly. Even assuming it is started shortly, the project time is longer. Very few companies tried to work on cold rolling process (thickness reduction).
Metal and engineering	Basic iron and steel	Hot rolled bars of iron										There are several industries which produce different steel bars. Most of the companies use metal scrap for production but the new directive of Ministry of Finance favors the melting industries to get the scraps accumulated in government entities with lesser price, which lessens the production capacity of existing manufacturers. Currently, at the commodity level, the most wanted products in the construction sector are reinforcement bars whose production capacity has exceeded the demand but is underutilized. It is also noticed that there are industries which cannot use scraps for production which are dependent on billet importation. Therefore, is production is geared to the demanded products in the industries, substitution is achievable in the short to medium term.
Metal and engineering	Basic iron and steel	Tanks of iron or steel										There are a lot of companies which produces tanks of iron and steel for different purposes. Currently, unless there are extra special requirements; these products used to be produced locally (fuel & gas station tankers, transport tankers, and etc.) but have not substituted imports. Their main input is hot and cold rolled steel sheets whose import customs tax is 0% which

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*										Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
													encourages existing capacity utilization (currently manufacturers of metal tanks are operating at 51% of their production capacity) and new investment.
Metal and engineering	Basic iron and steel	Cloth of iron or steel wire											There are three huge steel wire rod manufacturing company which provide inputs to nail producers, net producers and other related product manufacturers. It is assumed that unless for some special purposes, the product is somewhat substituted. However, per CSA data, fabricated metal manufacturers are operating at a ~61% capacity while import data suggests we are still importing > 1 Mn USD worth of cloths or iron. Therefore, supporting this industry can help achieve full substitution.
Metal and engineering	Basic iron and steel	Other tubes, pipes and hollow profiles											There are a lot of companies which produce structural steels like Rectangular hollow section (RHS), Circular hollow sections (CHS) round bar, Square hollow section (SHS), etc. Their input is hot and cold rolled steel sheets whose import customs tax is 0% which encourages the new investment. Therefore, it is possible to achieve import substitution in the short-to-medium term through capacitating existing manufacturers that are underutilized or attracting new investment.
Metal and engineering	Vehicles	Parts of aircrafts											As it is in accordance with the aviation standards and plan, it may take long time to substitute.
Metal and engineering	Vehicles	Parts of motor vehicles											As the quantity of vehicle import is to the higher level, there is a huge market for spare parts locally. Spare part manufacturers are also attracted to invest due to the booming vehicle market; however, as the variety is wide, it needs time to be substituted.

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
Metal and engineering	Vehicles	Motor vehicles										As the impact of the vehicle assembly industry is multisectoral, technologically intensive and the import is massive, focus is needed to enhance and capacitate the sector for import substitution. The government also gives focus to promote the sector and additionally there are good learning experiences and initiations on the car assembly industry to assemble world renowned brands like Hyundai, Peugeot, Kia, etc.
Metal and engineering	Machinery and equipment	Electrical transformers										As the production capacity of the transformers is substantial with the demand, it is considered as somewhat substituted. The existing factories are equipped and have the capacity to produce the power transformer starting from lower KVA to the substation level. Manufacturers are also the clients of EEPCO having a significant presence in the market.
Metal and engineering	Machinery and equipment	Centrifuges										There are currently only a few manufacturers for cream separator and use sophisticated technology. There is an emergence of vehicle 'oil and filter' and air intake filter manufacturing companies following the huge market encouraging potential substitution.
Metal and engineering	Machinery and equipment	Electrical boards										Boards, cabinets, and similar combinations of apparatus for electric control or power distribution and related items are the product used by almost all machinery, equipment, engineering, and service giving industries. There are some manufacturers operating below capacity so special focus is needed as it is a cross functional product with high demand.
Metal and engineering	Machinery and equipment	Electrical motors, generators										There are different electrical motor and power generators assemblers locally. It is common and an input to other machinery, equipment, and engineering

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
												industry; however, current domestic production doesn't meet the demand, so special attention is needed to substitute the product.
Metal and engineering	Machinery and equipment	Electrical ignition equipment										As it is a specific item, it can be considered as a spare part. And specifically, it might not be feasible to plan to substitute locally in priority level with the current capacity so it may require new investment attraction.
Metal and engineering	Machinery and equipment	Pumps and compressors										These products are among the basics for agriculture and manufacturing technologies. There is strong potential to produce and substitute locally. There are machinery and equipment manufacturers which have big potential to achieve this if the proper support is available.
Metal and engineering	Machinery and equipment	Insulated electrical wires										Similar to the electrical transformer, electrical wires are also well-produces locally and can be substituted easily. There is a huge capacity for production. Ethio-telecom and EEPCO cover a large portion of the demand and are permanent customer of electrical wire producers. Recently, a new company also started the production of copper rod which is the raw material for wires manufacturer catalyzing production in the value chain.
Metal and engineering	Machinery and equipment	Electrical apparatus and parts										There are producers of these electrical items locally with limited capacity and access. These items are cross functional for different users. The products are also input for different manufacturers. As they can be produced in different varieties and are demanded across industries, investment attraction and capacitation of existing manufacturers is mandatory.
Metal and engineering	Machinery and equipment	Machinery - food, drink										Enhancing the production capacity of existing manufacturers of these machineries can be considered as the turn-key for the food and beverage industry. There are different industries working on the manufacturing of these items from the category of small

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	Substitution Timeline *(in years)*									Rationale
			Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
												to large companies with great potential. It's production demands focus, and the high-tech machineries also demand deep skill, yet as it is pertinent to support the agro-processing industries as well, it should be a priority.

2. Annex II: List of binding constraints and corresponding interventions across all sub-sectors

i. Food and beverage sub-sector interventions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
Lack of backward and forward linkages	Inadequate supply of raw materials (low quality, quantity, and seasonality of agricultural inputs); lack of traceable, transparent, and predictable raw material market system for the manufacturing industries	(1) Promote aggregation and warehouse receipt system for priority and strategic commodities – edible oil, sugar, pasta, macaroni, enriched foods, malt, fruit juice	Program										**MoA and ATI** – initiate, promote, and oversee the implementation of the aggregation and warehouse receipt system **MoTRI** – ensure the system aligns with trade regulations and supports the marketing and distribution of the commodities **MoI and MIDI** – support the MoA and ATI in implementing the warehouse receipt system for select manufacturing commodities
		(2) Expand commercial farming (by encouraging new local and FDI investment) practices through targeted incentives and out-grower scheme directly linked to manufacturers for strategic commodities (sugar, wheat (bread and durum), edible oil)	Program										**MoA** – provide guidance and support for expanding commercial farming practices and encourage local and foreign direct investment (FDI) in the sector through implementing out-grower schemes and provide targeted incentives to attract new investments and support out-grower schemes **MoI and EIIDE** – support the MoA in identifying and linking manufacturers of strategic commodities with farmers in the out-grower schemes **MIDI** – provide technical support for MoA and MoI

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
		(3) Develop a value chain alliance for market linkage (NGOs, public institutions, and global/regional buyers) and suppliers (manufacturers or association representatives) can engage to encourage the purchase of local priority agro-processed products	Project											**ATI** – utilize existing value chain alliance platforms to include manufacturers of priority commodity producers **MoA** – identifying suppliers (farmers) and ensures alignment with agricultural priorities **MoI and MIDI** – facilitate the inclusion of manufacturers in existing value chain alliances and/or the formation of new ones by engaging with NGOs, public institutions, and global/regional buyers
		(4) Include import substitution priority commodities under the ECX one window marketing system	Program											**MoI** – initiate and follow-up on the inclusion of priority commodities into the one-window marketing system **ECX** – implement the one window marketing system in collaboration with relevant ministries to include import substitution priority commodities
Obsolete machinery utilization for strategic commodity manufacturers (e.g sugar factories)	Limited ownership alternative restricting funding sources to adapt improved technology (Sugar producing SOEs established 50 years ago use the same technology – limited support from the sugar corporation)	(5) Expedite EIH's investment attraction efforts to promote joint ventures in which foreign companies can invest in the skills/technology of existing producers, especially sugar factories	Project											**EIH** – identify investment opportunities in existing sugar factories, lead the investment attraction efforts, promote joint ventures, and facilitate foreign companies' investments in sugar **MoI** – support EIH in investment opportunity identification and facilitation **MIDI** – provide technical support in the identifying of opportunities in sugar factories

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
Limited market standardization (Irregular market price fluctuations)	Underdeveloped marketing system	(6) Set minimum market price for strategic agricultural commodities, conduct frequent market price assessments and identify alternatives to manage market surplus to ensure access to raw materials for manufacturers and proper remuneration for smallholder farmers	Legal/program											**MoTRI** – in collaboration with MoA, determine the minimum market price for strategic agricultural commodities and conduct frequent market price assessments **ESI** – evaluate minimum prices and conduct frequent market price assessments **MoR** – support MoTRI in monitoring and enforcing the minimum market price to ensure proper remuneration for smallholder farmers **MoI/MIDI** – in collaboration with MoTRI, identify alternatives to manage market surplus, such as export promotion or local value-addition initiatives, to ensure access to raw materials for manufacturers

ii. Textile and apparel sub-sector interventions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
Lack of backward and forward linkages	Unbalanced investment along the textile and apparel manufacturing value chain	(7) Review and develop new performance-based investment incentives for manufacturers focusing on fibre, yarn, fabric, trim, and accessories manufacturing in Ethiopia	Directive											**MoI** – review and lead the development process of new performance-based investment incentives, working closely with relevant ministries and stakeholders **MoF** – provide expertise in designing the performance-based investment incentives in

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														line with the current government priorities and policies **MIDI** – provide technical support on specific commodities in the review and design process of new incentives
		(8) Develop investment promotion strategy for selected products and value chains (focusing on cotton and other textile fibres with high production potential and diversified product mixes) to attract FDI's into the value-chain	Program											**EIC** – develop an investment promotion strategy and incentive schemes specifically targeting farmers of cotton and other textile fibres with high production potential from small to commercial ones **MoI/MIDI** – provide industry demands to plan manufacturing quantities, check cotton quality parameters, and provide general expertise in developing a comprehensive strategy **MoTRI** – control trading of natural fibres in consultation with MoI and MoA
		(9) Establish textile and apparel industrial clusters based on geographic potential of regions to substitute imports of upstream value chains in textile manufacturing (cotton and other natural fibre producing areas)	Program											**MoI** – lead the coordination, facilitation, and licensing processes to establish textile and apparel industrial clusters based on the geographic potential of regions, working in collaboration with relevant regional authorities and industry stakeholders **EIC** – facilitate investment and provides necessary support for setting up the industrial clusters, attracting domestic and foreign investors in collaboration with financial institutions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														MIDI – conduct a study to ensure the feasibility of the clusters and provide ongoing technical support to engaged bodies, including skill building after cluster establishment
Inadequate raw material supply	Inability to produce sufficient quality and quantity of inputs, lack of special attention for temporary imports of critical inputs that can't be produced in the short-term	(10) In collaboration with MoA, develop a strategy and mid-to-long-term program to produce natural fibres such as cotton in sufficient quantity and quality	Program											**MoA** and **MoI** – develop a strategy for producing natural fibres and develop a joint mid-to-long term program for the implementation of the strategy **MIDI** – support MoI by ensuring the alignment of the strategy and program with the textile industry requirements
		(11) Create incentives for private cotton breeders, researchers, and cotton value chain developers to produce high quality cotton varieties	Legal/strategy											**MoA** – design the incentive program for private cotton breeders, researchers, and cotton value chain developers, providing support and guidance in producing high-quality cotton varieties, in collaboration with the necessary institutions **MoI** and **MIDI** – ensure that the incentives align with the needs of the textile and apparel industry and contribute to the development of a competitive value chain **MoF** – validate, endorse, and implement the incentive program
Lack of adequate technology to unlock full value chain potential	Absence of technology and investment in critical value chain areas (e.g., diversified fabric producers)	(12) Attract new investments that have the potential to develop integrated value chains and bring advanced technologies to produce	Program											**MoI** – in collaboration with EIC, identify the specific requirements and needs of the textile industry to identify the desired investment for attraction and facilitate the

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
		competitive diversified textiles (fabrics)												development of integrated value chains in investment areas **EIC** – attract new investments that can bring advanced technologies to produce competitive diversified textiles, particularly fabrics **MInT** – support EIC and MoI in the identification and selection of advanced technologies to attract investment in the textile sector **MIDI** – support all entities by ensuring that the technologies and selected products align with the needs of the textile and apparel industry
Rudimentary perception towards local products	Poor perception of all local products as 'inferior quality' by local consumers	(13) Develop national, regional, and city-wide campaign programs to reach communities and buyers to use and promote locally manufactured goods	Program											**MoI** – initiate the country-wide campaign by creating a platform to reach manufacturers and buyers effectively **MIDI** – in collaboration with the ETGAMA, leads the design and implementation of a national, regional, and city-wide campaign programs to promote and encourage the use of locally manufactured goods **ETGAMA** – facilitate the promotion campaign through linkage and communication with manufacturers of priority commodities
		(14) Impose trade quota on selected goods with local competitive production capacity and those that	Legal											**MoI** – jointly with ECC, initiate trade quota on selected goods with local competitive

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	Med. *(4 – 7)*	Long *(8 – 10)*	
		do not affect the consumer demand to encourage local manufacturers focusing on garment items (e.g., initial commodities to be considered are identified in this strategy)					production capacity (identified in the strategy) **ECC** – monitor and enforce the trade quota to support and protect local manufacturers

iii. Leather and leather products sub-sector interventions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	Med. *(4 – 7)*	Long *(8 – 10)*	
Poor quality and quantity of raw hides and skins	Lack of backward and forward linkages, inadequate supply and low quality of local raw materials, poor handling and preservation,	(15) Create long-term contract market linkage mechanisms between RHS collectors and tanneries	Project				**MoI** – develop a long-term contract market linkage system and facilitate linkage between collectors and tanneries **MIDI** – provide industry expertise and guidance in establishing effective market linkage mechanisms **ELIA** – representing the interests of both collectors and tanneries, provide support for MoI in creating the market linkage system
		(16) Capacitate and incentivize primary RHS collectors via finance, training and awareness creation programs to enhance the quality and preservation of RHS	Program				**MoI** – design a capacity-building program for primary RHS collectors to enhance the quality and preservation of RHS **MIDI** – collaborate with ELIA to implement the capacity building training for collectors ensuring the program's alignment with the needs of the leather industry and

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														contribution to the overall improvement of raw material quality
		(17) Incentivize the establishment of ranches and improved husbandry practices to ensure large-scale production of livestock and RHS	Project/program											**MoA** – create incentives and provide support for the establishment of ranches and improved husbandry practices, ensuring large-scale production of livestock and RHS **MoI** – support MoA in the development of financial mechanisms and incentives to encourage investment in ranching and husbandry practices **MoF** – validate, endorse, and implement the incentive program
		(18) Revise Article 814/2013 of 2006 Proclamation to permit manufacturers as primary buyers to increases the value of raw leather inputs	Legal											**MoI** – lead the revision process of Article 814/2013 of the 2006 Proclamation, in collaboration with relevant stakeholders, to permit manufacturers as primary buyers to increase the value of raw leather inputs and submit to HPR for approval **MoTRI** – ensures that the revised article aligns with trade policies and regulations. **MIDI** – provide technical support to MoI in the development of the amended/revised Proclamation **HPR** – evaluate and approve revision amendment
		(19) Subsidize the initial prices (set minimum price) of RHS to incentivize	Legal											**MoI** – design a subsidy program by setting minimum prices for RHS and oversee the

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	**Med.** *(4 – 7)*	**Long** *(8 – 10)*	
		the society to properly handle the materials during slaughtering					distribution of subsidies to eligible beneficiaries **MoF** – evaluate the proposed subsidy program and allocate funds and provide the necessary resources after approval **MIDI** – support in identifying the target beneficiaries and the appropriate subsidy amount
		(20) Promote competitiveness in SMEs through linkages with medium and large manufacturers and capacitate them through facilities such as sheds, lease financing, working capitals accessibility and others	Program				**MoI** – oversee the overall implementation of the program, including the development of guidelines, as well as the establishment of the necessary institutional frameworks and capacity building measures **MoI** and **MIDI** – establish linkages between small and medium enterprises (SMEs) and medium-to-large manufacturers **MIDI** – provide technical support and training to SMEs in the leather industry **EED** – provide support and capacity-building programs for SMEs to improve their competitiveness and facilitate linkages with larger manufacturers **MoF** – provide funding and financial support for the program, including the provision of lease financing and working capital for SMEs through CBE and DBE

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
		(21) Strengthen cluster development efforts and create awareness on clustering concept to small, medium, and large-scale producers including associations to create business linkages across the value chain and decrease supply chain challenge	Program										**MoI** – lead the cluster development efforts, creating awareness and providing guidance on the concept of clustering to all stakeholders involved **MIDI** – provide technical support in the awareness creation efforts and identification of appropriate industries for clustering to ensure value chain linkages **ELIA** – create awareness among their members on the benefits of clustering and facilitating business linkages across the value chain
Lack of intermediate inputs (accessories and components, finished leather, etc.), technologies, and skills	Lack of finished leather diversification, lack of training in institutions and industries, limitations of finance for technology, lack of application of new technology	(22) Restrict import of finished leather through a quota system *(to be considered when challenges of tanneries are minimized)*	Legal										**MoI** – initiate the quota system to restrict the import of finished leather, ensuring that it aligns with trade policies and regulations **MIDI** – support MoI in identifying the needs of the industry, rationale for initiation, and outcomes of the quota system **MoF** – evaluate, validate, and endorse the quota system **ECC** – implement the quota restricting the import of finished leather
		(23) Develop product diversification, branding, traceability to enhance competitiveness of local footwear	Project										**MIDI** – conduct study on the current state of product diversification, branding and traceability in the leather industry **MoI** – develop a project to enhance product diversification, branding, and traceability in the local footwear industry, collaborating

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
													with relevant stakeholders and industry associations
Poor market linkage and availability of informal markets	Poor product diversification, Poor design and limited style of products, poor branding, poor participation on exhibition and trade fair, poor clustering system, limited market linkage platforms, poor marketing strategy, high contraband	(24) Prepare national exhibitions and international trade fairs for manufacturers to promote their products, promote the use of made in Ethiopia and encourage domestic buyers to purchase local products	Program										**MoI** – organize the national exhibitions and trade fairs for local product promotion **EIC –** organize international trade fairs to promote the Ethiopian leather industry and attract FDI **ECCSA** and **ELIA** – promote the use of made in Ethiopia products among domestic buyers
		(25) Promote competitiveness in SMEs by participating exhibitions, trade fairs and other events and create business linkages between micro and small enterprises with medium and larger enterprises	Program										**MoI, MIDI,** and **EED** – create an enabling environment for SMEs and facilitate their participation in exhibitions and trade fairs; facilitate linkages between SMEs and medium and large enterprises
Poor clustering and association systems	Lack of knowledge and shared goals in clusters, poor attitudes, lack of management commitment, lack of awareness about clustering, limited government focus given to large industries, lack of sheds and unclear provision of sheds	(21) Strengthen cluster development efforts and create awareness on clustering concept to small, medium, and large-scale producers including associations to create business linkages across the value chain and decrease supply chain challenges	Program										**MoI** – lead the cluster development efforts, creating awareness and providing guidance on the concept of clustering to all stakeholders involved **MIDI** – provide technical support in the awareness creation efforts and identification of appropriate industries for clustering to ensure value chain linkages **ELIA** – create awareness among their members on the benefits of clustering and facilitating business linkages across the value chain

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	Med. *(4 – 7)*	Long *(8 – 10)*	
		(26) Implement a quota production system administered by associations to be able to bring about economies of scale and produce competitive and quality products for the market	Legal/program				**MoI** – design, initiate, and implement the quota production system **MIDI** – provide technical support to MoI identify the appropriate quota level for industries during the design of the quota system and engage with the ELIA to facilitate coordination and administration of the quota **ELIA** – administer the quota production system and coordinating with associations to ensure compliance
		(27) Establish associations at micro, small, medium and large-scale levels for leather and leather product industries especially for priority commodity manufacturing industries	Legal/project				**MoI, MIDI,** and **EED** – create an enabling environment for the establishment of associations for micro, small, medium, and large-scale associations **ELIA** – establish and support the new production scale-based associations for the leather and leather product industries

iv. Chemical and construction inputs sub-sector interventions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	Med. *(4 – 7)*	Long *(8 – 10)*	
Low productivity of the plastic and rubber and chemical sub-sector	Poor backward and forward linkages; limited production (e.g., LABSA,	(28) Study the local raw material – to identify the potential reserve of polymers like Bio-PE, Bio- PET, Bio-	Program				**MoI** – mobilize stakeholders and establish a communication platform for integration to

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
	pulp for paper and carton packaging industries, rubber), limited quality surveillance and technology use and adoption	PP, Polymerization from ethanol, dyeing and tanning chemicals and design a mid-to-long term program including investment promotion to establish linkages with plastic and chemical processing manufacturers such as PVC compound and pipe products											align on study and oversee the study and program development process **MoM** – lead assessment study to identify potential **MIDI** – support MoM in study the market distribution, demand and supply to identify highly demanded products for the manufacturing sector and measure productivity status of identified goods, and design program based on study results **EIC** – lead the investment promotion activities along with MoI
		(29) Attract FDI and public investment including JVs to develop input production and facilitate fair competition for large-scale pulp processing, rubber, LABSA, and other strategic commodities	Program										**EIC –** lead investment attraction initiative for priority areas **MoI** – develop program to facilitate public investment in priority areas and coordinate and facilitate investment licencing, facilitation, etc. operations with EIC for private sector investment **MIDI** – support coordination and provide technical support in feasibility development
Burdensome taxation of rethreaded tyres	Unreasonable excise tax in tyre rethreading industries and absence of incentives for the industry	(30) Revise the excise tax proclamation on rethreaded tyre based on clear and critical evidence	Legal										**MoI** and **MIDI**– provide technical input on the impact of the excise tax on the rethreaded tire industry and facilitating discussions between stakeholders, propose the revision, and draft the revised excise tax proclamation on rethreaded tires

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	Med. *(4 – 7)*	Long *(8 – 10)*	
							PSI – support the MoI by conducting research and analysis on the impact of the excise tax on the rethreaded tire industry, and providing evidence-based recommendations for revising the excise tax proclamation **MoF** – evaluate, validate, and endorse the proclamation for HPR submission **HPR** – evaluate, validate, and endorse the proclamation for implementation **MoR** – implement the revised excise tax proclamation on rethreaded tires and monitoring compliance

v. Metal and engineering sub-sector interventions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	Med. *(4 – 7)*	Long *(8 – 10)*	
High dependence on raw material imports for almost all sectors	No strategies in place to facilitate domestic production of critical imports	(31) Study the local raw material – to identify the potential reserve of Magnetite-Ilmenite Iron ore and Iron Phosphate deposit in in Gimbi town and Sekota, Iron-Ore deposits located in Sekota woerda, Koream town and design a mid-to-long term program including investment promotion to	Program				**MoI** – mobilize stakeholders and establish a communication platform for integration to align on study and oversee the study and program development process **MoM** – lead assessment study to identify potential and implement iron-ore extraction pre-feasibility study

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
		establish linkages with metal and engineering industries such as fabricated metal processors – converting the pre-feasibility study of Iron-ore extraction owned by MoM											**MIDI** – support MoM in study the market distribution, demand and supply to identify highly demanded products for the manufacturing sector and measure productivity status of identified goods, and design program based on study results **MoTRI** – implement a fair marketing and distribution system **EIC** – lead the investment promotion activities along with MoI
		(32) Develop a scrap collection, filtration, and dissemination policy and regulatory framework	Strategy/legal										**MoI** – propose and develop the policy and regulatory framework for scrap collection, filtration, and dissemination in the metal and engineering sector, including facilitating discussions between stakeholders **ESI** – set standards and guidelines for scrap collection, filtration, and dissemination in the metal and engineering sector **MIDI** – provide technical support and training to MoI during policy development **Associations** – provide input on the impact of the policy and regulatory framework on the industry and advocate for changes as needed
		(33) Develop a strategy to produce circuit PCB (printed circuit board) and other strategic commodities and attract investment	Strategy										**MoI** – propose and develop a strategy to produce PCB and other strategic commodities and to attract investment

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
													EIC – promote PCB manufacturing and attract foreign direct investment to for production **MIDI** – provide technical support and training to MoI during strategy development
		(34) Attract new investment (FDI, JD, local, etc.) for the production of components and parts – e.g., electronic actuatros by developing the value proposition of booming automotive sector and potential utilization for both domestic and export markets for CKD and SKD	Program										**EIC** – lead investment attraction initiative for priority areas **MoI** – facilitate investment licencing, facilitation, etc. operations with EIC for private sector investment **MIDI –** support coordination and provide technical support EIC in value proposition pitch development for investors
Ignored supply chain as a company cannot produce each part of its product	No clear incentive policy for such industries which supply a part to upstream industries	(35) Develop an automotive industry policy	Policy										**MoI** – develop the automotive industry policy, and oversee its implementation **MIDI** – provide technical input and support in the development and implementation of the automotive industry policy **EIC** – promote investment in the automotive industry and attract foreign direct investment to support the sector **MoTRI** – ensure that the policy aligns with relevant trade agreements and facilitate trade of automotive products **ESI** – set standards and guidelines for the automotive industry in Ethiopia, including safety and quality standards

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	**Med.** *(4 – 7)*	**Long** *(8 – 10)*	
							MoR – monitor compliance of the policy with the Ethiopian tax structure

vi. Cross-cutting interventions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*			Implementing organizations
				Short *(1 – 3)*	**Med.** *(4 – 7)*	**Long** *(8 – 10)*	
Awareness	Over-specification of bids in government procurement to exclude locally produced goods; poor perception of communities for locally produced goods	(36) Revise public procurement procedures to enforce mandatory procurement of competitive local products (for the five sectors and the priority commodities identified in the strategy for import substitution) by public institutions to discourage imports unless products are unavailable or not up to standard	Legal				**MoI** – propose and develop the revisions to the public procurement procedures **MIDI** – provide technical input and support in the development and implementation of the revised procurement procedures including identifying competitive local products and enforcing mandatory procurement by public institutions **ESI** – ensure that local products meet safety and quality standards, and for provide guidelines and support to local producers to meet these standards **PPPA** – lead the revision of public procurement procedures to enforce mandatory procurement of competitive local products by public institutions **FEAC** – ensure that the revised procurement procedures are transparent and free from corruption

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
													MoF – ensure the revised procedures align with financial regulations and oversees their implementation
		(37) Create awareness about competitive local products (for the five sectors and the priority commodities identified in the strategy for import substitution – rubber, plastic and paper, recycled products, metal and engineering) latest technology capability and recyclability of plastic and paper recycling technology and standardize the use of recycled plastic and paper for manufacturing (for five sectors)	Legal/ program										**MoI** – develop awareness-raising campaigns on latest technology capability for competitive local products, and promote and standardize the use of recycled plastic and paper in manufacturing **EFCCC** – promote the latest technological capability and recyclability of plastic and paper and standardizes the use of recycled materials for manufacturing **MIDI** – provide technical input and support in the development and implementation of awareness-raising campaigns and the standardization of the use of recycled materials **ESI** – set standards and guidelines for the use of recycled materials in manufacturing, and ensure that local products meet safety and quality standards **MInT** – research and provide information about the latest technology capability and recyclability of materials and promote the use of environmentally friendly technologies and processes in manufacturing **Associations** – provide information on the latest technology capability and recyclability

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
													of recycling technology to member manufacturers
		(38) Design awareness creation programs for manufacturers of priority commodities of import substitution for all 5 sectors across their value chain on existing incentives – input providers, processors, and auxiliary industry manufacturers)	Program										**MoI** – develop and implement awareness creation programs for manufacturers of priority commodities in collaboration with other relevant government entities and industry associations, informing them about existing incentives and promoting participation **MIDI** – support MoI in designing the program by providing technical input and perspective of manufacturers **EIC** – promote investment in the manufacturing of priority commodities and attracting foreign direct investment to support the sector based on existing incentives **Associations** – actively participate and provide information on the existing incentives for manufacturers of priority commodities
Skill	Lack of specialized training due to out-dated training curriculum and lack of practical training on baseline skills	(39) Evaluate and revise universities and TVET curriculum for all five sectors with relevant content with strong involvement of the private sector and the respective industry research and development experts to fulfil the hard and soft skill	Project										**MoI** – identify existing gap between available and desired skills by manufacturers, technology status through discussions with manufacturers and responsible bodies **MoLS** and **MoE** – based on identified findings from MoI and in collaboration with the private sector, industry research and

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
		demanded by the domestic and international markets												development centres, and relevant government bodies to evaluate and revise universities and TVET curriculum for all five sectors, ensuring it aligns with market demand **MIDI** – provide consultation to MoI throughout the skill gap identification and technology status assessment phases; and support the implementing institutions during the curriculum revision project
		(40) Promote practical training or internships/ apprenticeships with manufacturers for the five sectors, particularly for the production of the priority commodities focusing on the import substitution	Program											**MoI** – promote and design a program to implement practical training and internships/apprenticeships with manufacturers to provide hands-on experience and skill development **MoE** and **MoLS** – integrate practical training, internships, and apprenticeships into the curriculum of universities and TVETs, and for provide support to students in accessing such opportunities **MIDI** – in collaboration with MoI, facilitate linkages with manufacturers of priority commodities and universities and TVETs to access practical training and apprenticeships **Associations** – provide input on the skills and competencies required for practical training, internships, and apprenticeships on behalf of members to attract talent from universities and TVETs

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														Higher education institutions – partner with manufacturers to provide training and internships opportunities to students
		(41) Revise the labor law to create equal and conducive working relationships between laborers, management, and manufacturers and incentivize industries to establish a functional structure (to liaise between manufacturers and laborers and encourage the establishment of unions)	Legal											**MoI** – conduct a study to identify the gaps in the current labor law in collaboration with MIDI and propose its revisions to create equal and conducive working relationships in collaboration with responsible institutions; and incentivize industries to establish a functional structure such as unions **MoWSA** – lead the revision of the labor law to create equal and conducive working relationships between laborers and manufacturers **MoJ** – evaluate, validate, and oversee the implementation of the revised labor law after endorsement
		(42) Revise the minimum wage regulation and set wages on a performance/productivity basis	Legal											**MoI** – in collaboration with MIDI and other concerned bodies, conduct a study to identify the impact of the current minimum wage structure on both laborers and manufacturers and the potential improvements attained from performance-based wage structures **MoWSA** – based on the findings of the study, lead the review and revision of the minimum wage regulation, setting wages on a performance/productivity basis

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			**Med.** *(4 – 7)*				**Long** *(8 – 10)*		
		(43) Design a program to support selected manufacturers of strategic products with high performance in business management	Program										**MoI** – design a capacity building program on business management for high-performing manufacturers of strategic products and providing assistance and resources to enhance their competitiveness **MIDI** – support MoI in training design, in relation to the sector and identification and selection of high-performing manufacturers
		(44) Conduct a capacity gap assessment, and design and roll out a capacity-building program for key sectoral leadership positions	Program										**MoI** – conduct a capacity gap assessment of key sectoral leadership within MoI and affiliated institutions; design and implement a capacity-building program for key sectoral leadership positions, focusing on strengthening leadership skills within the manufacturing sector
Technology	Use of outdated technology due to high capital costs	(45) Set up a tech upgrading fund with development partners to share the capital cost of industries producing priority commodities using outdated technologies to upgrade their machinery	Project										**MoI** – propose and design the tech upgrading scheme in collaboration with MoF, MIDI, industry associations, and development partners **MIDI** – provide technical support to MoI in the identification of priority industries and technologies that take precedence in the upgrading scheme **MoF** – collaborate with development partners to establish a fund for industries producing priority commodities
Research and development	Lack of adequate support for research institutions	(46) Strengthen research institutes and centres with the appropriate	Project										**MIDI** – conduct a needs assessment and identify gaps in the institution and each research centre and develop a clear project

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
		laboratories, technology, and equipment												identifying areas of support and resource requirements **MoI** – in collaboration with MIDI and other stakeholders, design projects and plans to strengthen scientific research and technology development including mobilizing funding and support for research institutes and centres to acquire the necessary laboratories, technology, and equipment
Standard	Inadequate testing, inspection, GMP certification system for manufacturers of domestic agro-processed foods	(47) Strengthen ESI and ECAE (conformity) food testing/laboratory, certification, and quality assurance system for manufacturers supplying to local markets – for producers of the identified priority commodities	Project											**ESI** and **ECAE** – conduct a needs assessment and identify gaps in each institution and develop a clear project identifying areas of support and resource requirements **MoI** and **MIDI** – based on the needs assessment, design a project to coordinate stakeholders and jointly mobilize resources to support ESI and ECAE **FDA** – establish and enforce health, safety, and quality standards for priority products and oversee safety inspections and audits
		(48) Design a program to schedule regular inspection and consultation on Good Manufacturing Practice for strategic commodities between the FDA and manufacturers including M&E systems to assure performance against established standards	Program											**FDA** – design and implement the program, including developing inspection protocols, training inspectors, and conducting regular inspections of manufacturing facilities; develop and enforce Good Manufacturing Practice (GMP) standards for strategic commodities, and provide consultation to manufacturers on how to comply with these standards

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														ESI – support FDA in developing and enforcing standards for GMP, and providing technical guidance and support to the FDA and manufacturers **MoI and MoTRI** – ensure that manufacturers comply with GMP standards and enforce penalties on non-compliant manufacturers **MoA** – ensure that agricultural practices meet safety and quality standards, and provide guidance and support to farmers on GMP standards
Finance – working capital	Shortage/unavailability of working capital, poor financial management system	(49) Set manufacturer credit provision quota for manufacturers engaged in the production of priority import substitution commodities and monitor the allocation of credit disbursement and reimbursement	Legal											**NBE** – set manufacturer credit provision quota for all policy and commercial banks to support manufacturers engaged in the production of priority import substitution commodities; monitor the allocation of credit disbursement and reimbursement of banks governed under NBE **MoF** – coordinate the implementation of the credit provision quota program and support NBE in establishing the criteria for allocating credit disbursement and reimbursement to manufacturers **MoI** – support NBE and MoF in identifying and prioritizing commodities and work with manufacturers to develop production plans that meet national import substitution goals

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			**Med.** *(4 – 7)*				**Long** *(8 – 10)*			
														DBE and **Commercial Banks** – in compliance with the NBE direction, manage the disbursement of credit to manufacturers and for ensuring that credit funds are used for their intended purposes.
		(50) Revise the minimum interest rate for working capital reimbursement amount and period allocated for manufacturers according to their manufacturing lifecycle, especially for domestic manufacturers of priority commodities	Legal											**NBE** – assess the impact of the current credit scheme and implement a revised interest rate policy in line with national monetary policies and priorities and manage the disbursement and reimbursement of working capital to manufacturers **MoF** – coordinate the implementation of the revised interest rate policy and support NBE in establishing the criteria for determining interest rates and reimbursement periods for manufacturers **MoI** and **MIDI** – support the NBE in the impact assessment by forming linkages and gathering information from manufacturers/industries and identify and prioritize domestic industries and commodities for interest rate revision consideration
Finance – forex	Unclear forex allocation schedules and systems, inconsistent directives on quota on use of generated forex for exporters	(51) Enforce, regulate, and establish a transparent procedure to implement the National Bank of Ethiopia Directive No. FXD/77/2021 to monitor foreign currency	Procedure											**NBE** – design and implement the procedure to monitor foreign currency allocation across all commercial banks, including establishing reporting requirements and data collection mechanisms; enforce the directive and ensure that commercial banks comply with its provisions

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*		
		allocation across all commercial banks											**MoF** – provide oversight and guidance to the NBE, and ensure that the intervention is aligned with national fiscal policies and priorities **MoI** – initiate the dialogue with concerned bodies to begin the implementation of the procedure
		(52) Revise the 20/80 policy to increase the percentage of foreign currency allocation gained from their own export for exporting manufacturers	Legal										**NBE** – revise the criteria for determining the percentage of foreign currency allocation to be gained from manufacturers' exports and enforce policy ensuring that commercial banks comply with its provisions
Auxiliary industries	Unavailability and low quality of auxiliary inputs (paper/carton packaging, ambient and cold chain transportation); lack of investment in accessory and component manufacturing, lack of technologies, skills, and input availability for accessory production	(53) Attract new investment (FDI, JD, local, etc.) on the production of auxiliaries – e.g., accessories, components, and packaging materials and by developing the value proposition of booming manufacturing sector and potential utilization for both domestic and export markets to promote technology transfer	Project										**EIC** – lead investment attraction initiative for priority areas **MoI** – facilitate investment licencing, facilitation, etc. operations with EIC for private sector investment **MIDI –** support coordination and provide technical support for EIC in value proposition pitch development for investors and primary area identification for technology transfer
		(54) Develop a strategy for auxiliary industry development for the manufacturing sector value chains e.g., cold chain transportation and logistics systems for food and beverage, accessories and	Strategy										**MoI** and **MIDI** – in collaboration with the necessary stakeholders, develop and implement the strategy for auxiliary industry development, identify and prioritizing sub-sectors, and for work with manufacturers to

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
		components for textile and leather, molds, last, and sole for footwear, packaging for chemicals and metal												develop production plans that meet national demand for auxiliary goods across industries
Government service	Inefficient civil servants, absence of proper systems and communications channels; knowledge and skill gap of custom experts in the manufacturing sector	(55) Develop a strategic plan for training and technology transfer for customs commission experts in all five sectors through field visits in industries or employing sector experts as technical consultants	Program											**ECC** – identify the training needs of the commission's experts, develop a strategic plan for training and technology transfer for the experts, and coordinate the training and technology transfer activities **MoI** and **MIDI** – in collaboration with regional offices, prepare training and help in the provision of the services by assigning technical personnel for short-term consultation
		(56) MoI to establish a sector-specific one-window technology-based service across relevant customs offices at the Federal, Regional, and city level	Program											**MoI** and **MIDI** – in collaboration with regional offices, design a one stop service system based on ECC's model and train the offices to help in the implementation of the services **ECC** – facilitate space in regional customs offices for the assigned MoI experts and assign and train the MoI experts in assigned to the customs posts in customs service provision
		(57) Revise the government performance-based assessment (business scorecard) in line with the service provided to manufacturers	Legal/ Program											**MoI** – in collaboration with the necessary stakeholders, create a consultation platform to revise the government performance-based assessment (business scorecard) in line with the needs and priorities of manufacturers

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
Policy	Absence of policy consistency for metal and chemical sub-sectors	(58) Develop a long-term strategy that guides the policies and incentives applied for the chemical and construction inputs and metal and engineering sub-sectors	Strategy											**MoI** and **MIDI** – conduct an in-depth study assessing the current incentive structures and develop a long-term strategy that guides the policies and incentives applied for the chemical and construction inputs and metal and engineering sub-sectors **MoI** – coordinate the implementation of the strategy with other government entities **MoF** – provide input and insights regarding the current and desired incentive structures for the two sectors and support the implementation of the long-term strategy **EIC** – provide input on current incentive structures and recommend ways forward based on investor engagement
Infrastructure	Low electric distribution capacity, ineffective usage of electric power, old electric transmission line, unavailable dedicated electric line specific to the industry, poor management of electric utility	(59) Prioritize selected manufacturers producing priority commodities for competitive electricity tariff rates to lower production costs	Legal											**MoI** and **MIDI** – identify manufacturers producing priority commodities and support EEU in identifying competitive tariff rate to lower manufacturing costs **MoWE** – oversee the implementation of tariff rates and monitor the impact **EEU** – develop and implement competitive electricity tariff rates to lower production costs of priority industries
		(60) Establish a dedicated and uninterrupted power transmission lines to heavy industries (chemical and construction input	Program											**MoI** – initiate the program by coordinating with necessary stakeholders, identify industries and strategic commodity producers that would benefit from the

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
		manufacturers, metal and engineering manufacturers) and strategic commodity producers across the 2 sectors												dedicated power transmission lines and support MoWE and EEP in the implementation of the program **MoWE** – establish the dedicated power transmission lines to heavy industries and support EEP to ensure that the lines are maintained and upgraded as necessary **EEP** – construct and operate the dedicated and uninterrupted power transmission line and ensure that the transmission lines are reliable and efficient
		(61) Provide integrated and reliable infrastructure to clustered service/area for local manufacturers producing priority commodities	Program											**MoI** – identify production clusters manufacturing priority commodities and develop and implement an integrated infrastructure plan to support them by coordinating all necessary stakeholders during the planning and implementation phases **MIDI** – provide technical support to MoI in the identification of priority clusters and development of infrastructure provision plan
		(62) Prioritize selected manufacturers or industry corridors manufacturing priority commodities for the supply and quality of digital infrastructure and services in collaboration with EthioTel and by attracting both domestic and foreign investment	Program											**MoI** – initiate collaboration with MInT and EthioTelecom to supply quality digital infrastructure and services to high-priority investors; identify and prioritize manufacturers or industry corridors that would benefit from the supply and quality of digital infrastructure and services

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														MInT – develop policies and guidelines for the administration of digital infrastructure and services, and coordinate the implementation of the intervention with other government entities **EthioTelecom** – provide the digital services to the selected manufacturers or industry corridors manufacturing priority commodities and ensure the reliability and quality of the services
Associations	Inadequate associational structure, capital, technical and managerial capability, and partnership	(63) Strengthen existing manufacturing association in terms of systems, relationships with manufactures and institutions, and technical and managerial capabilities; lobby for the establishment of manufacturer con/federation	Legal/Program											**MoI** and **MIDI** – create an enabling environment for the establishment of an apex institution or con/federation that leads all associations across all sub-sectors **Sectoral associations** – support in the establishment of the new apex body for the respective sub-sectors
Tax and incentives	Limitation of stakeholder participation during the development of policy, strategy, proclamation, and directives	(64) Based on the prioritized commodities, review existing types of taxes imposed across processed goods and erase double taxation areas for all manufacturers (raw material taxation, processing taxation, and final goods taxation making final products uncompetitive)	Legal											**MoI** and **MIDI** – in collaboration with the necessary bodies, lead and coordinate the assessment initiative of existing taxes across priority commodities **MoF** – provide input and insights regarding the current and desired tax structures for the priority commodities and support the implementation of the revised taxation scheme **MoR** and **ECC** – provide the necessary information and insights during the assessment of current tax structures and

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														lead the implementation of the revised tax structure for priority commodities
		(65) Establish advisory teams composed of all manufacturing association to establish a consultative relationship between government entities that set tax and pricing rules and manufacturers (5 sub-sectors)	Program											**MoI** – establish an advisory committee composed of MoF, MoR, ECC, MoTRI, EIC, manufacturing sector associations, and other stakeholders assembling on a quarterly/bi-annually basis, with the responsibility of consulting government bodies on tax and pricing rules
		(66) Develop performance-based incentives and financial support for manufacturers producing priority commodities to import critical chemicals and other inputs across the 5 sub-sectors	Legal/Project											**MoI** and **MIDI** – identify needs of associations and provide support to strengthen their systems, relationships and coordination with manufacturers and institutions, and technical and managerial capabilities **MoI** – create a deliberation platform with association representatives to discuss the establishment of a manufacturer con/federation to promote the interests of the manufacturing industry and lobbying for its establishment based on consensus **ECCSA** – facilitate coordination between the ministry and member association during the needs assessment and con/federation establishment phases of the project
		(67) Establish a regular, transparent, and coordinated audit for incentivized manufacturers	Procedure											**MoI** – identify the incentivized manufacturers and initiate the establishment of a regular audit process

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														MoR and **ECC** – assess the gap in the current audit process (causes for delays, lack of transparency, and coordination for taxes and duties) and enhance the audit system; provide speedy, regular, transparent, and coordinated audit process and ensuring that the incentivized manufacturers are compliant with their tax/duty obligations to limit backlogs
		(68) Create alignment among all incentive-offering organs to easily identify what incentives are set for which items and who/which organs are incentivizing those products (to clarify mandates of incentivizing bodies)	Procedure											**MoF** – coordinate the alignment of incentives across all government entities and develop policies and guidelines to ensure consistency and transparency in the incentive offerings across the board **MoI** – identify priority commodities that will be incentivized and for support MoF with by collaborating with other government entities to coordinate the incentive offerings
		(69) Evaluate and reframe export incentives for priority import-substitution commodities across the value chain (from raw materials to marketing) and setup an evaluation mechanism to assess the impact of the incentives on manufacturers and import substitution (5 sub-sector)	Program											**MoI** and **MIDI** – conduct a study to assess the existing export incentives to evaluate their impact and identify learnings for priority import substitution products for incentive design and implementation **MoF** – support the MoI and MIDI in setting up the evaluation mechanism to assess the impact of the incentives on manufacturers and import substitution; evaluate, validate, and approve the recommended incentives of MoI for import substitution

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*										Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*				Long *(8 – 10)*			
														EIC – support MoI in the coordination of investors and manufacturers to assess the current incentive schemes and assessment of impact of previous incentives
Contraband	Rampant smuggling/contraband	(70) Implement Proclamation No. 329/2003 that is responsible to control anti-competitive practices by establishing the responsible commission and synergizing fragmented roles of anti-competitive trading control across different implementing organs – duplication of roles, mandates, and unclear enforcing body	Legal											**MoTRI** – establish the responsible commission for controlling anti-competitive practices and coordinate the roles of different implementing organs **MoJ** – provide legal support and guidance to during the establishment of the Commission and enforcing of the Proclamation No. 329/2003 **MoR** and **ECC** – in line with the regulation to establish the Commission, ensure that the enforcement of the regulation is effective and duly procedures are taken by all that have business undertakings
		(71) Implement a system to technologically disable or prevent the use of items that have been imported illegally *(for some commodities e.g., mobile phones)*	Legal											**MoTRI** – develop policies and regulations related to the importation of goods and for working with other government entities to implement the system to technologically disable or prevent the use of items that have been imported illegally **ECC** – enforce the policies and regulations related to the importation of illegal goods and work with other government entities to implement the system **EthioTelecom** – implement the technological system to disable or prevent

Binding constraints	Root causes	Interventions	Intervention type	Timeline *(in years)*									Implementing organizations
				Short *(1 – 3)*			Med. *(4 – 7)*			Long *(8 – 10)*			
													the use of technological products that have been imported illegally

3. Annex III: Mapping of import substitution interventions with manufacturing sector policy projects

i. Programmatic/project interventions

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	Attract domestic and foreign direct investment (Including manufacturers) to expand commercial agriculture which will increase the supply of inputs to the domestic manufacturing industry	(2) Expand commercial farming (by encouraging new local and FDI investment) practices through targeted incentives and out-grower scheme directly linked to manufacturers for strategic commodities (sugar, wheat (bread and durum), edible oil)
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	Create resource financing programs through financial service providers and development banks	(45) Set up a tech upgrading fund with development partners to share the capital cost of industries producing priority commodities using outdated technologies to upgrade their machinery
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	Establish a joint venture investment with the government for iron ore and steel industries	(31) Study the local raw material – to identify the potential reserve of Magnetite-Ilmenite Iron ore and Iron Phosphate deposit in in Gimbi town and Sekota, Iron-Ore deposits located in Sekota woerda, Koream town and design a mid-to-long term program including investment promotion to establish linkages with metal and engineering industries such as fabricated metal processors – converting the pre-feasibility study of Iron-ore extraction owned by MoM

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	Attract domestic, FDI, or joint venture investment for chemical products production	(28) Study the local raw material – to identify the potential reserve of polymers like Bio-PE, Bio- PET, Bio-PP, Polymerization from ethanol, dyeing and tanning chemicals and design a mid-to-long term program including investment promotion to establish linkages with plastic and chemical processing manufacturers such as PVC compound and pipe products
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	*Facilitating relationships with upstream supply chain actors (raw material) sectors (e.g., cotton forum)*	(10) In collaboration with MoA, develop a strategy and mid-to-long-term program to produce natural fibres such as cotton in sufficient quantity and quality
Increase production and productivity	Increase raw material resource development	Increase the development of value chain resources supply	Develop shed, required facilities, utilities, and service to supplying (feeding) industries and industrial clusters to strengthen industrial linkage (e.g., expansion of spinning Mills around Dire Dawa)	(21) Strengthen cluster development efforts and create awareness on clustering concept to small, medium, and large-scale producers including associations to create business linkages across the value chain and decrease supply chain challenge
				(61) Provide integrated and reliable infra-structure to clustered service/area for local manufacturers producing priority commod-ities
Increase production and productivity	Increase raw material resource development	Increase the development of value chain resources supply	Improve industrial linkages by focusing on developing local suppliers of inputs for priority sectors and product	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase production and productivity	Increase raw material resource development	Increase the development of value chain resources supply	Attract new investment for the manufacture of essential auxiliary products (e.g., accessories, packaging, etc.) and build linkages with downstream producers to encourage value addition	(53) Attract new investment (FDI, JD, local, etc.) on the production of auxiliaries – e.g., accessories, components, and packaging materials and by developing the value proposition of booming manufacturing sector and potential utilization for both domestic and export markets to promote technology transfer
				(54) Develop a strategy for auxiliary industry development for the manufacturing sector value chains e.g., cold chain transportation and logistics systems for food and beverage, accessories and components for textile and leather, moulds, last, and sole for footwear, packaging for chemicals and metal
Increase production and productivity	Increase raw material resource development	Increase the development of marketing linkage system	Build the capacity of both infrastructure and know-how of public and private sectors to strengthen the implementation and use of e-commerce and market linkage platforms (e.g., Contract marketing scheme)	(3) Develop a value chain alliance for market linkage (NGOs, public institutions, and global/regional buyers) and suppliers (manufacturers or association representatives) can engage to encourage the purchase of local priority agro-processed products
				(15) Create long term contract market linkage mechanisms between RHS collectors and tanneries
				(24) Prepare national exhibitions and international trade fairs for manufacturers to promote their products, promote the

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
				use of made in Ethiopia and encourage domestic buyers to purchase local products
				(25) Promote competitiveness in SMEs by participating exhibitions, trade fairs and other events and create business linkages between micro and small enterprises with medium and larger enterprises
Increase production and productivity	Increase raw material resource development	Increase the development of marketing linkage system	Expand modern storage, processing and marketing s based on research and studies to enhance integration with industrial clusters and industrial parks	(20) Promote competitiveness in SMEs through linkages with medium and large manufacturers and capacitate them through facilities such as sheds, lease financing, working capitals accessibility and others
Increase production and productivity	Increase raw material resource development	Product quality improvement	Develop and enforce national standards on input and product quality (agriculture and manufacturing) by building the capacity of enforcing institutes and quality assurance infrastructure across the value chain	(47) Strengthen ESI and ECAE (conformity) food testing/laboratory, certification, and quality assurance system for manufacturers supplying to local markets – for producers of the identified priority commodities
Increase production and productivity	Increase raw material resource development	Product quality improvement	Develop capacity building and awareness creation on product quality and award schemes to improve quality standards	(48) Design a program to schedule regular inspection and consultation on Good Manufacturing Practice for strategic commodities between the FDA and manufacturers including M&E systems to assure performance against established standards
Increase production and productivity	Accessible infrastructure and government services	Infrastructure development	Improve the supply and quality of digital infrastructure and services by	(62) Prioritize selected manufacturers or industry corridors manufacturing priority commodities for the supply and quality of

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
			attracting both domestic and foreign investment	digital infrastructure and services in collaboration with EthioTel and by attracting both domestic and foreign investment
Increase production and productivity	Accessible infrastructure and government services	Infrastructure development	Improve infrastructure and utility provision for Tier 2 production facilities (intermediate product producers with the manufacturing value chain) to improve industrial linkage. E.g., textile factories, dye houses, etc.	(59) Prioritize selected manufacturers producing priority commodities for competitive electricity tariff rates to lower production costs
Increase production and productivity	Accessible infrastructure and government services	Infrastructure development	Develop the capacity of institute and branches of MoI (Office, training s, IT facility development, pilot plant and laboratories) and other required infrastructure	
Increase production and productivity	Accessible infrastructure and government services	Infrastructure development	Provide an uninterrupted power transmission line option for selected manufacturing clusters	(60) Establish a dedicated and uninterrupted power transmission lines to heavy industries (chemical and construction input manufacturers, metal and engineering manufacturers) and strategic commodity producers across the 3 sectors
Increase production and productivity	Accessible infrastructure and government services	Infrastructure development	Increase investments in road, logistics and rail infrastructure development corresponding to the manufacturing industry map	
Increase production and productivity	Accessible infrastructure and government services	Infrastructure development	Modernize corporate governance and improve the operational efficiency of logistics enterprises through digital	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
			logistics and attracting both domestic and FDI investors to the sector	
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	Strengthen and streamline the government service delivery system of the manufacturing industry through single window service (OSS) (services such as licencing, customs, incentives, illegal brokers and trading control)	(55) Develop a strategic plan for training and technology transfer for customs commission experts in all five sectors through field visits in industries or employee sector experts as technical consultants
				(56) MoI to establish a sector-specific one-window technology-based service across relevant customs offices at the Federal, Regional, and city level
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	Develop a quality management system to enhance competitiveness and growth of the manufacturing industry	
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	Develop the information technology infrastructure required for the provision of services by government institutions related to manufacturing industries	
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	*Establish the manufacturing industry information technology and knowledge management system (Industry information system). Including the development of required software and infrastructure that solves existing challenges*	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	*Restart and expand the Ease of Doing business project*	
Increase production and productivity	Increase the supply of finance to support the manufacturing industry	N/A	Develop and expand investment and the financing options of the manufacturing sector by expanding Joint Venture and other financing options	
Increase production and productivity	Increase the supply of finance to support the manufacturing industry	N/A	Encourage the growth of Non-Banking Financial Institutions (NBFIs)	
Increase production and productivity	Increase the supply of finance to support the manufacturing industry	N/A	Raise and deploy funds with a low-interest rate and minimal collateral for prioritized manufacturing subsectors/products	(49) Set manufacturer credit provision quota for manufacturers engaged in the production of priority import substitution commodities and monitor the allocation of credit disbursement and reimbursement
				(50) Revise the minimum interest rate for working capital reimbursement amount and period allocated for manufacturers according to their manufacturing lifecycle, especially for domestic manufacturers of priority commodities
Increase production and productivity	Increase the supply of finance to support the manufacturing industry	N/A	Attract investment to lease machinery financing through private, PPP, or joint venture mechanism	
Increase production and productivity	Human resource development	Develop skills development training for the manufacturing industry	Develop training and skill development courses by creating a dialogue platform between education and training	(39) Evaluate and revise universities and TVET curriculum for all five sectors with relevant content with strong involvement

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
			institutions, the Ministry of Industry and the private sector to enhance the fusion to reduce the demand gap of skilled manpower	of the private sector and the respective industry research and development experts to fulfil the hard and soft skill demanded by the domestic and international markets
Increase production and productivity	Human resource development	Develop skills development training for the manufacturing industry	Strengthen partnerships between industry and technology clusters to offer students practical exposure to industry-leading software, hardware, and processes	(40) Promote practical training or internships/ apprenticeships with manufacturers for the five sectors, particularly for the production of the priority commodities focusing on the import substitution
Increase production and productivity	Human resource development	Develop skills development training for the manufacturing industry	Establish training s in industrial parks, ICT parks and special economic zones to encourage investment in skills development using a cost-sharing mechanism	
Increase production and productivity	Human resource development	Increase Implementation capacity	Provide support to universities, colleges, technical and vocational education, and training institutions to strengthen the facilitation of need-based training	
Increase production and productivity	Production oriented industrial cluster	N/A	Develop manufacturing industry clusters based on industrial corridors at the federal and regional level	(9) Establish textile and apparel industrial clusters based on geographic potential of regions to substitute imports of upstream value chains in textile manufacturing (cotton and other natural fibre producing areas)

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase production and productivity	Production oriented industrial cluster	N/A	Completion of integrated agro-industrial park development and infrastructure construction	
Increase production and productivity	Production oriented industrial cluster	N/A	Incentivize the private sector on the development and management of clusters and industrial parks	
Increase production and productivity	Production oriented industrial cluster	N/A	Support matchmaking to enhance linkage within the supply chain, provide capacity-building training and establish cluster content units to address information gaps around industry clusters	
Increase production and productivity	Production oriented industrial cluster	N/A	Build the capacity of local suppliers by developing industrial clusters for local firms to support matchmaking to enhance linkage within the supply chain	
Increase production and productivity	Production oriented industrial cluster	N/A	*Prepare a national industrial mapping*	
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and development of enterprise investment	Carry out necessary infrastructure development for industrial extension growth under all regions and city administrations across all levels of government	
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and development of enterprise investment	Develop marketing and value chain linkage systems between local enterprises	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and promotion of investment in advanced industries	Establish petrochemical industries through a joint venture with the government	
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and promotion of investment in advanced industries	Attract PPP investment in priority and catalytical areas that can transform the manufacturing sector	(29) Attract FDI and public investment including JVs to develop input production and facilitate fair competition for large-scale pulp processing, rubber, LABSA, and other strategic commodities
				(33) Develop a strategy to produce printed circuit board and other strategic commodities and attract investment
				(34) Attract new investment (FDI, JD, local, etc.) for the production of components and parts – e.g., electronic actuatros by developing the value proposition of booming automotive sector and potential utilization for both domestic and export markets for CKD and SKD
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and promotion of investment in advanced industries	Attract new investors to Integrated Agro-Industry Parks through system improvement and promotional works	
Increase production and productivity	Result-oriented incentive	N/A	Incentivize local manufacturers to enhance the availability of cost-effective digital technologies	
Increase production and productivity	Result-oriented incentive	N/A	Implement result-oriented incentive mechanisms for the manufacturing industry sector including the	(7) Review and develop new performance-based investment incentives for manufacturers focusing on fibre, yarn,

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
			development of required systems and infrastructure	fabric, trim, and accessories manufacturing in Ethiopia
				(11) Create incentives for private cotton breeders, researchers, and cotton value chain developers to produce high quality cotton varieties
				(14) Impose trade quota on selected goods with local competitive production capacity and those that do not affect the consumer demand to encourage local manufacturers focusing on garment items (e.g., initial commodities to be considered are identified in this strategy)
				(16) Capacitate and incentivize primary RHS collectors via finance, training and awareness creation programs to enhance the quality and preservation of RHS
				(17) Incentivize the establishment of ranches and improved husbandry practices to ensure large-scale production of livestock and RHS
				(69) Evaluate and reframe export incentives for priority import-substitution commodities across the value chain (from raw materials to marketing) and setup an evaluation mechanism to assess the impact of the incentives on manufacturers and import substitution (5 sub-sector)

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
				(66) Develop performance-based incentives and financial support for manufacturers producing priority commodities to import critical chemicals and other inputs across the 5 sub-sectors
Increase production and productivity	Result-oriented incentive	N/A	Develop a strategy on the result-oriented incentive mechanism for the manufacturing industry	(58) Develop a long-term strategy that guides the policies and incentives applied for the chemical and construction inputs and metal and engineering sub-sectors
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of R&D and technology adoption capacity of Manufacturing industry sub-sector private and public research s (food and beverage, textile leather, metallurgy, chemical construction, pharmaceutical)	Improve and expand technology transfer, adoption and development s and industries	
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of R&D and technology adoption capacity of Manufacturing industry sub-sector private and public research s (food and beverage, textile leather, metallurgy, chemical construction, pharmaceutical)	Strengthen research institutes and s with laboratories and incubation s	(46) Strengthen research institutes and centres with the appropriate laboratories, technology, and equipment
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of R&D and technology adoption capacity of Manufacturing industry sub-sector private and public research s (food and beverage,	Strengthen linkage between industry and science and technology institutes (R&D laboratories and universities), re-establishing them and building the capacity of research s (e.g.,	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
		textile leather, metallurgy, chemical construction, pharmaceutical)	demonstration laboratories and machinery)	
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of R&D and technology adoption capacity of Manufacturing industry sub-sector private and public research s (food and beverage, textile leather, metallurgy, chemical construction, pharmaceutical)	Expand and establish manufacturing industry technology transfer and technology innovation s within industrial parks and major industries	
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of technological innovation and creation to transform of the manufacturing industry	Establish and expand a manufacturing-focused incubator to accelerate local manufacturing innovation	
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of technological innovation and creation to transform of the manufacturing industry	Improve business development and entrepreneurship skills by providing tailored training	(43) Design a program to support selected manufacturers of strategic products with high performance in business management
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of technological innovation and creation to transform of the manufacturing industry	Strengthen the technology and innovation registration system to enhance the commercialization of new products, technologies and intellectual properties	
Increase technology utilization and innovation	R&D and technology adoption enhancement	Commercialization of manufacturing industry technology and product innovations	Provide Business Development Services (BDS) focused on market development, investment, technology utilization and management skills	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase technology utilization and innovation	R&D and technology adoption enhancement	Commercialization of manufacturing industry technology and product innovations	Identify opportunities for locally developed and adapted technologies through market assignment support, capacity building, experience sharing and market linkage	
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of Techno Park	Establish Techno Park by developing the required infrastructure, human capital and legal framework by linking them with identified universities	
Increase technology utilization and innovation	R&D and technology adoption enhancement	Development of Techno Park	Incentivize partnerships between industry, universities and technology clusters to conduct technology-focused R&D within the Techno Parks	
Increase the share of the manufacturing industry in export and import substitution	Increase strategic import substitution production	N/A	Promote the use of locally produced products through awareness creation, supporting champion manufacturers and scaling up learnings	(13) Develop national, regional, and city-wide campaign programs to reach communities and buyers to use and promote locally manufactured goods
Increase the share of the manufacturing industry in export and import substitution	Increase strategic import substitution production	N/A	Enhance import substitution by attracting investment by designing a value chain strategy of selected competitive products	(12) Attract new investments that have the potential to develop integrated value chains and bring advanced technologies to produce competitive diversified textiles (fabrics)
Increase the share of the manufacturing industry in export and import substitution	Increase strategic import substitution production	N/A	Incentivize large local firms to become local suppliers of inputs that are currently being imported	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Increase the share of the manufacturing industry in export and import substitution	Increase strategic import substitution production	N/A	Modernize production and increase the competitiveness of local products by attracting investment (private, PPP, joint venture, etc.) to manufacturers that focus on reverse engineering and new product development	
Increase the share of the manufacturing industry in export and import substitution	Increase strategic import substitution production	N/A	Develop and implement a strategy to replace government procurement with domestic products (e.g., Locally produced clothing & shoes for security agencies and students' bags and shoes project)	(36) Revise public procurement procedures to enforce mandatory procurement of competitive local products (for the five sectors and the priority commodities identified in the strategy for import substitution) by public institutions to discourage imports unless products are unavailable or not up to standard
Increase the share of the manufacturing industry in export and import substitution	Expand export products basket	N/A	Attract investment to expand the basket and volume of export manufacturing industry products by designing and implementing market linkage development and marketing strategy	
Increase the share of the manufacturing industry in export and import substitution	Expand export products basket	N/A	Attract investment by designing a strategy to increase the international competitiveness of the manufacturing industry based on value chain development experience of neighbouring and peer continental countries	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
Establish an inclusive and sustainable manufacturing system	Sustainable and green manufacturing industry development	N/A	Initiate a social and environmental audit and certification service to ensure compliance and achieve social and environmental standards by developing regular inspection programs and conducting training	
Establish an inclusive and sustainable manufacturing system	Sustainable and green manufacturing industry development	N/A	Implement targeted and output-oriented incentive systems to encourage environmentally sustainable investment and production ("green investment") - including resource efficiency, and recycling	(37) Create awareness about competitive local products (for the five sectors and the priority commodities identified in the strategy for import substitution – rubber, plastic and paper, recycled products, metal and engineering) latest technology capability and recyclability of plastic and paper recycling technology and standardize the use of recycled plastic and paper for manufacturing (for five sectors)
Establish an inclusive and sustainable manufacturing system	Sustainable and green manufacturing industry development	N/A	Identify and expand opportunities for locally developed and adapted clean energy technologies through research, capacity building, and encouraging innovation and technology transfer, exchange of experiences, and stakeholder consultation	
Establish an inclusive and sustainable manufacturing system	Sustainable and green manufacturing industry development	N/A	Integrated leather industry cluster and joint sewage treatment plant construction project	
Establish an inclusive and sustainable manufacturing system	Sustainable and green manufacturing industry development	N/A	Initiation of industrial labour market information and management system	

Key Result Area	Program	Sub-program	Projects	IS Interventions *(aligned with projects)*
			(national dialogue, social infrastructure, social protection strategy)	
Establish an inclusive and sustainable manufacturing system	Inclusive manufacturing industry development	N/A	Develop specific financing funds to enhance the contribution and benefits of Women and people with a disability in the manufacturing industry sector	
Establish an inclusive and sustainable manufacturing system	Inclusive manufacturing industry development	N/A	Design and deliver need-based technical, business management, marketing and leadership training to boost business led by women and people with disability growth	

ii. Legal framework interventions

Key Result Area	External legal framework covered in policy	IS Interventions *(aligned with legal frameworks)*
Increase production and productivity	Improve the foreign exchange provision system by considering the special requirement of the manufacturing industry sector (including the policy bank's foreign exchange acquisition and management system)	(51) Enforce, regulate, and establish a transparent procedure to implement the National Bank of Ethiopia Directive No. FXD/77/2021 to monitor foreign currency allocation across all commercial banks
	Develop banks' foreign currency allocation, provision and use monitoring guidelines and control system	
Increase production and productivity	Improve the civil service accountability system that can provide government services that take into account the unique characteristics of the manufacturing industry	(41) Revise the labor law to create equal and conducive working relationships between laborers, management, and manufacturers and incentivize industries to establish a functional structure (to liaise between manufacturers and laborers and encourage the establishment of unions)

4. Annex IV: Mapping of remaining import substitution interventions with manufacturing sector policy programs

i. Programmatic/project interventions

Key Result Area	Program	Sub-program	Remaining IS Interventions
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	(1) Promote aggregation and warehouse receipt system for priority and strategic commodities – edible oil, sugar, pasta, macaroni, enriched foods, malt, fruit juice
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	(4) Include import substitution priority commodities under the ECX one window marketing system
Increase production and productivity	Increase raw material resource development	Increase the development of primary resource supply	(32) Develop a scrap collection, filtration, and dissemination policy and regulatory framework
Increase production and productivity	Increase raw material resource development	Increase the development of value chain resources supply	(26) Implement a quota production system administered by associations to be able to bring about economies of scale and produce competitive and quality products for the market
Increase production and productivity	Increase raw material resource development	Increase the development of value chain resources supply	(35) Develop an automotive industry policy
Increase production and productivity	Increase raw material resource development	Increase the development of marketing linkage system	(23) Develop product diversification, branding, traceability to enhance competitiveness of local footwear
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	(44) Conduct a capacity gap assessment, and design and roll out a capacity-building program for key sectoral leadership positions
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	(57) Revise the government performance-based assessment (business scorecard) in line with the service provided to manufacturers

Key Result Area	Program	Sub-program	Remaining IS Interventions
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	(64) Based on the prioritized commodities, review existing types of taxes imposed across processed goods and erase double taxation areas for all manufacturers (raw material taxation, processing taxation, and final goods taxation making final products uncompetitive)
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	(65) Establish advisory teams composed of all manufacturing association to establish a consultative relationship between government entities that set tax and pricing rules and manufacturers (5 sub-sectors)
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	(67) Establish a regular, transparent, and coordinated audit for incentivized manufacturers
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	(68) Create alignment among all incentive-offering organs to easily identify what incentives are set for which items and who/which organs are incentivizing those products (to clarify mandates of incentivizing bodies)
Increase production and productivity	Accessible infrastructure and government services	Modernize and improve government services	(71) Implement a system to technologically disable or prevent the use of items that have been imported illegally (for some commodities e.g., mobile phones)
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and development of enterprise investment	(5) Expedite EIH's investment attraction efforts to promote joint ventures in which foreign companies can invest in the skills/technology of existing producers, especially sugar factories
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and development of enterprise investment	(8) Develop investment promotion strategy for selected products and value chains (focusing on cotton and other textile fibres with high production potential and diversified product mixes) to attract FDI's into the value-chain
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and development of enterprise investment	(27) Establish associations at micro, small, medium and large-scale levels for leather and leather product industries especially for priority commodity manufacturing

Key Result Area	Program	Sub-program	Remaining IS Interventions
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and development of enterprise investment	(63) Strengthen existing manufacturing association in terms of systems, relationships with manufactures and institutions, and technical and managerial capabilities; lobby for the establishment of manufacturer con/federation
Increase production and productivity	Development of the domestic manufacturing industry	Expansion and promotion of investment in advanced industries	(12) Attract new investments that have the potential to develop integrated value chains and bring advanced technologies to produce competitive diversified textiles (fabrics)
Increase production and productivity	Result-oriented incentive	N/A	(6) Set minimum market price for strategic agricultural commodities, conduct frequent market price assessments and identify alternatives to manage market surplus to ensure access to raw materials for manufacturers and proper remuneration for smallholder farmers
Increase production and productivity	Result-oriented incentive	N/A	(19) Subsidize the initial prices (set minimum price) of RHS to incentivize the society to properly handle the materials during slaughtering
Increase production and productivity	Result-oriented incentive	N/A	(22) Restrict import of finished leather through a quota system (to be considered when challenges of tanneries are minimized)
Increase production and productivity	Result-oriented incentive	N/A	(38) Design awareness creation programs for manufacturers of priority commodities of import substitution for all 5 sectors across their value chain on existing incentives – input providers, processors, and auxiliary industry manufacturers)

ii. Legal framework interventions

Key Result Area	Remaining IS Interventions *(legal)*
Increase production and productivity	(18) Revise Article 814/2013 of 2006 Proclamation to permit manufacturers as primary buyers to increases the value of raw leather inputs

Key Result Area	Remaining IS Interventions *(legal)*
Increase production and productivity	(30) Revise the excise tax proclamation on rethreaded tyre based on clear and critical evidence
Increase production and productivity	(42) Revise the minimum wage regulation and set wages on a performance/productivity basis
Increase production and productivity	(52) Revise the 20/80 policy to increase the percentage of foreign currency allocation gained from their own export for exporting manufacturers
Increase production and productivity	(70) Implement Proclamation No. 329/2003 that is responsible to control anti-competitive practices by establishing the responsible commission and synergizing fragmented roles of anti-competitive trading control across different implementing organs – duplication of roles, mandates, and unclear enforcing body

5. Annex V: Budget mapping of aligned import substitution interventions and Ethiopia Tamrit initiatives

i. Budget of aligned interventions

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
		Total Budget	**351,723,683**	**351,510,746**	**340,262,806**	**1,043,497,235**	
Increase production and productivity	Attract domestic and foreign direct investment (Including manufacturers) to expand commercial agriculture which will increase the supply of inputs to the domestic manufacturing industry	(2) Expand commercial farming (by encouraging new local and FDI investment) practices through targeted incentives and out-grower scheme directly linked to manufacturers for strategic commodities (sugar, wheat (bread and durum), edible oil)	94,495,937	92,301,523	95,098,539	**281,896,000**	
Increase production and productivity	Create resource financing programs through financial service providers and development banks	(45) Set up a tech upgrading fund with development partners to share the capital cost of industries producing priority commodities using outdated technologies to upgrade their machinery	9,683,977	6,733,588	2,693,435	**19,111,000**	
Increase production and productivity	Establish a joint venture investment with the government for iron ore and steel industries	(31) Study the local raw material – to identify the potential reserve of Magnetite-Ilmenite Iron ore and Iron Phosphate deposit in in Gimbi town and Sekota, Iron-Ore deposits located in Sekota woerda, Koream town and design a mid-to-long term program including investment promotion to establish linkages with metal and engineering industries such as fabricated metal processors – converting the pre-feasibility	308,550	308,550	317,900	**935,000**	

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
		study of Iron-ore extraction owned by MoM					
Increase production and productivity	Attract domestic, FDI, or joint venture investment for chemical products production	(28) Study the local raw material – to identify the potential reserve of polymers like Bio-PE, Bio- PET, Bio-PP, Polymerization from ethanol, dyeing and tanning chemicals and design a mid-to-long term program including investment promotion to establish linkages with plastic and chemical processing manufacturers such as PVC compound and pipe products	15,274,875	15,274,875	15,737,750	**46,287,500**	
Increase production and productivity	*Facilitating relationships with upstream supply chain actors (raw material) sectors (e.g., cotton forum)*	(10) In collaboration with MoA, develop a strategy and mid-to-long-term program to produce natural fibres such as cotton in sufficient quantity and quality	20,768,000	20,768,000	-	**41,536,000**	
Increase production and productivity	Develop shed, required facilities, utilities, and service to supplying (feeding) industries and industrial clusters to strengthen industrial linkage (e.g., expansion of spinning Mills around Dire Dawa)	(21) Strengthen cluster development efforts and create awareness on clustering concept to small, medium, and large-scale producers including associations to create business linkages across the value chain and decrease supply chain challenge	3,578,500	3,578,500	-	**7,157,000**	
		(61) Provide integrated and reliable infra-structure to clustered service/area for lo-cal manufacturers producing priority com-modities	-	-	-	-	Budget merged with project (21)

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
Increase production and productivity	Attract new investment for the manufacture of essential auxiliary products (e.g., accessories, packaging, etc.) and build linkages with downstream producers to encourage value addition	(53) Attract new investment (FDI, JD, local, etc.) on the production of auxiliaries – e.g., accessories, components, and packaging materials and by developing the value proposition of booming manufacturing sector and potential utilization for both domestic and export markets to promote technology transfer	544,005	634,673	634,673	**1,813,350**	
		(54) Develop a strategy for auxiliary industry development for the manufacturing sector value chains e.g., cold chain transportation and logistics systems for food and beverage, accessories and components for textile and leather, moulds, last, and sole for footwear, packaging for chemicals and metal	-	-	-	-	Budget merged with project (53)
Increase production and productivity	Build the capacity of both infrastructure and know-how of public and private sectors to strengthen the implementation and use of e-commerce and market linkage platforms (e.g., Contract marketing scheme)	(3) Develop a value chain alliance for market linkage (NGOs, public institutions, and global/regional buyers) and suppliers (manufacturers or association representatives) can engage to encourage the purchase of local priority agro-processed products	-	1,050,500	-	**1,050,500**	
		(15) Create long term contract market linkage mechanisms between RHS collectors and tanneries	-	-	-	-	Budget merged with project (13)

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
		(24) Prepare national exhibitions and international trade fairs for manufacturers to promote their products, promote the use of made in Ethiopia and encourage domestic buyers to purchase local products	-	-	-	-	Budget merged with project (13)
		(25) Promote competitiveness in SMEs by participating exhibitions, trade fairs and other events and create business linkages between micro and small enterprises with medium and larger enterprises	-	-	-	-	Budget merged with project (13)
Increase production and productivity	Expand modern storage, processing and marketing s based on research and studies to enhance integration with industrial clusters and industrial parks	(20) Promote competitiveness in SMEs through linkages with medium and large manufacturers and capacitate them through facilities such as sheds, lease financing, working capitals accessibility and others	-	-	-	-	Budget merged with project (13)
Increase production and productivity	Develop and enforce national standards on input and product quality (agriculture and manufacturing) by building the capacity of enforcing institutes and quality assurance infrastructure across the value chain	(47) Strengthen ESI and ECAE (conformity) food testing/laboratory, certification, and quality assurance system for manufacturers supplying to local markets – for producers of the identified priority commodities	62,100,000	72,450,000	72,450,000	**207,000,000**	
Increase production and productivity	Develop capacity building and awareness creation on product	(48) Design a program to schedule regular inspection and consultation on Good Manufacturing Practice for strategic commodities between the FDA and	-	-	-	-	Budget merged with project (47)

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
	quality and award schemes to improve quality standards	manufacturers including M&E systems to assure performance against established standards					
Increase production and productivity	Improve the supply and quality of digital infrastructure and services by attracting both domestic and foreign investment	(62) Prioritize selected manufacturers or industry corridors manufacturing priority commodities for the supply and quality of digital infrastructure and services in collaboration with EthioTel and by attracting both domestic and foreign investment	992,750	-	-	**992,750**	
Increase production and productivity	Improve infrastructure and utility provision for Tier 2 production facilities (intermediate product producers with the manufacturing value chain) to improve industrial linkage. E.g., textile factories, dye houses, etc.	(59) Prioritize selected manufacturers producing priority commodities for competitive electricity tariff rates to lower production costs	-	-	-	-	Budget merged with project (60)
Increase production and productivity	Provide an uninterrupted power transmission line option for selected manufacturing clusters	(60) Establish a dedicated and uninterrupted power transmission lines to heavy industries (chemical and construction input manufacturers, metal and engineering manufacturers) and strategic commodity producers across the 3 sectors	2,640,000	880,000	880,000	**4,400,000**	
Increase production and productivity	Strengthen and streamline the government service delivery system of the manufacturing industry	(55) Develop a strategic plan for training and technology transfer for customs commission experts in all five sectors through	4,628,252	4,043,998	-	**8,672,250**	

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
	through single window service (OSS) (services such as licencing, customs, incentives, illegal brokers and trading control)	field visits in industries or employee sector experts as technical consultants					
		(56) MoI to establish a sector-specific one-window technology-based service across relevant customs offices at the Federal, Regional, and city level	-	-	-	-	Budget merged with project (56)
Increase production and productivity	Raise and deploy funds with a low-interest rate and minimal collateral for prioritized manufacturing subsectors/products	(49) Set manufacturer credit provision quota for manufacturers engaged in the production of priority import substitution commodities and monitor the allocation of credit disbursement and reimbursement	1,985,500	-	-	**1,985,500**	
		(50) Revise the minimum interest rate for working capital reimbursement amount and period allocated for manufacturers according to their manufacturing lifecycle, especially for domestic manufacturers of priority commodities	1,914,000	992,750	-	**2,906,750**	
Increase production and productivity	Develop training and skill development courses by creating a dialogue platform between education and training institutions, the Ministry of Industry and the private sector to enhance the fusion to reduce the demand gap of skilled manpower	(39) Evaluate and revise universities and TVET curriculum for all five sectors with relevant content with strong involvement of the private sector and the respective industry research and development experts to fulfil the hard and soft skill demanded by the domestic and international markets	188,595	220,028	220,028	**628,650**	

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
Increase production and productivity	Strengthen partnerships between industry and technology clusters to offer students practical exposure to industry-leading software, hardware, and processes	(40) Promote practical training or internships/ apprenticeships with manufacturers for the five sectors, particularly for the production of the priority commodities focusing on the import substitution	433,125	505,313	505,313	**1,443,750**	
Increase production and productivity	Develop manufacturing industry clusters based on industrial corridors at the federal and regional level	(9) Establish textile and apparel industrial clusters based on geographic potential of regions to substitute imports of upstream value chains in textile manufacturing (cotton and other natural fibre producing areas)	44,000,000	33,000,000	33,000,000	**110,000,000**	
Increase production and productivity	Attract PPP investment in priority and catalytical areas that can transform the manufacturing sector	(29) Attract FDI and public investment including JVs to develop input production and facilitate fair competition for large-scale pulp processing, rubber, LABSA, and other strategic commodities	20,087,210	19,036,710	18,752,580	**57,876,500**	
		(33) Develop a strategy to produce printed circuit board and other strategic commodities and attract investment	-	-	-	-	Budget merged with project (29)
		(34) Attract new investment (FDI, JD, local, etc.) for the production of components and parts – e.g., electronic actuatros by developing the value proposition of booming automotive sector and potential utilization for both domestic and export markets for CKD and SKD	-	-	-	-	Budget merged with project (29)

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
Increase production and productivity	Implement result-oriented incentive mechanisms for the manufacturing industry sector including the development of required systems and infrastructure	(7) Review and develop new performance-based investment incentives for manufacturers focusing on fibre, yarn, fabric, trim, and accessories manufacturing in Ethiopia	1,035,418	7,695,366	27,936,216	**36,667,000**	
		(11) Create incentives for private cotton breeders, researchers, and cotton value chain developers to produce high quality cotton varieties	-	-	-	-	Budget merged with project (7)
		(14) Impose trade quota on selected goods with local competitive production capacity and those that do not affect the consumer demand to encourage local manufacturers focusing on garment items (e.g., initial commodities to be considered are identified in this strategy)	-	-	-	-	Budget merged with project (7)
		(16) Capacitate and incentivize primary RHS collectors via finance, training and awareness creation programs to enhance the quality and preservation of RHS	-	-	-	-	Budget merged with project (7)
		(17) Incentivize the establishment of ranches and improved husbandry practices to ensure large-scale production of livestock and RHS	-	-	-	-	Budget merged with project (7)
		(69) Evaluate and reframe export incentives for priority import-substitution commodities across the value chain (from	-	-	-	-	Budget merged with project (7)

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
		raw materials to marketing) and setup an evaluation mechanism to assess the impact of the incentives on manufacturers and import substitution (5 sub-sector)					
		(66) Develop performance-based incentives and financial support for manufacturers producing priority commodities to import critical chemicals and other inputs across the 5 sub-sectors	-	-	-	-	Budget merged with project (7)
Increase production and productivity	Develop a strategy on the result-oriented incentive mechanism for the manufacturing industry	(58) Develop a long-term strategy that guides the policies and incentives applied for the chemical and construction inputs and metal and engineering sub-sectors	-	-	-	-	Budget merged with project (7)
Increase technology utilization and innovation	Strengthen research institutes and s with laboratories and incubation s	(46) Strengthen research institutes and centres with the appropriate laboratories, technology, and equipment	48,442,705	56,272,547	56,272,547	**160,987,800**	
Increase technology utilization and innovation	Improve business development and entrepreneurship skills by providing tailored training	(43) Design a program to support selected manufacturers of strategic products with high performance in business management	1,103,108	1,286,959	1,286,959	**3,677,025**	
Increase the share of the manufacturing industry in export and import substitution	Promote the use of locally produced products through awareness creation, supporting champion manufacturers and scaling up learnings	(13) Develop national, regional, and city-wide campaign programs to reach communities and buyers to use and promote locally manufactured goods	10,714,889	10,877,236	10,877,236	**32,469,360**	

Key Result Area	Projects	IS Interventions *(aligned with projects)*	3-Year Budget in ETB				Remark
			2016	2017	2018	Total	
Increase the share of the manufacturing industry in export and import substitution	Enhance import substitution by attracting investment by designing a value chain strategy of selected competitive products	(12) Attract new investments that have the potential to develop integrated value chains and bring advanced technologies to produce competitive diversified textiles (fabrics)	3,025,787	3,071,632	3,071,632	**9,169,050**	
Increase the share of the manufacturing industry in export and import substitution	Develop and implement a strategy to replace government procurement with domestic products (e.g., Locally produced clothing & shoes for security agencies and students' bags and shoes project)	(36) Revise public procurement procedures to enforce mandatory procurement of competitive local products (for the five sectors and the priority commodities identified in the strategy for import substitution) by public institutions to discourage imports unless products are unavailable or not up to standard	2,464,000	-	-	**2,464,000**	
Establish an inclusive and sustainable manufacturing system	Implement targeted and output-oriented incentive systems to encourage environmentally sustainable investment and production ("green investment") - including resource efficiency, and recycling	(37) Create awareness about competitive local products (for the five sectors and the priority commodities identified in the strategy for import substitution – rubber, plastic and paper, recycled products, metal and engineering) latest technology capability and recyclability of plastic and paper recycling technology and standardize the use of recycled plastic and paper for manufacturing (for five sectors)	1,314,500	528,000	528,000	**2,370,500**	

6. Annex VI: Intervention implementation risks, severity assessment, and mitigation measures

i. Risk assessment criteria

Criteria	Description
Impact on objectives	Assess how each risk may impact the main objectives of the strategy, such as boosting domestic production, easing government debt, and closing the trade deficit
Probability of occurrence	Estimate the likelihood of each risk happening based on historical data, expert opinions, or similar industry experiences
Timeframe	Consider the timeframe within which each risk is likely to occur as some risks may have short-term consequences, while others may manifest in the long run
Mitigation feasibility	Evaluate the feasibility and effectiveness of implementing mitigation measures for each risk
Risk tolerance	Sensitivity to and/or tolerance of changing political and economic conditions

ii. Risk definition, severity ranking, and proposed mitigation measures

Risk Definition	Severity	Mitigation Measures
Effective collaboration: Insufficient cooperation and coordination among different stakeholders, including government agencies, private sector entities, and industry associations		- Utilize the existing Ethiopia Tamrit platform to bring together representatives from various stakeholders, encourage open dialogue, and ensure all parties have a hand in the strategy's implementation - Ensure that relevant information, insights, and findings are shared among stakeholders transparently to foster trust
Policy and regulatory enforcement: The government faces challenges in effectively implementing proposed policy and regulatory changes		- Develop a robust implementation plan with clear timelines and responsibilities - Engage relevant stakeholders, including the private sector, in the policy-making process to ensure buy-in and smooth execution - Regularly review and assess the progress of policy implementation to address any bottlenecks promptly - Stay informed about changes in trade agreements and tariff structures to adjust production and export strategies accordingly

		- Collaborate with industry associations and business chambers to collectively address regulatory challenges, especially during implementation
Ownership: Inadequate commitment and lack of proactive leadership/support among key stakeholders toward the successful implementation of the strategy		- Ensure that the strategy's objectives, benefits, and potential impacts are communicated clearly and transparently to all stakeholders early in the process to secure their buy-in and commitment to the strategy - Provide training and capacity-building programs to equip leaders with the skills and knowledge necessary to implement the strategy effectively - Secure strong backing from top government leadership, including high-ranking officials and policymakers
Finance: Insufficient budget allocation for the implementation of proposed interventions		Prioritize quick-win interventions that align with the existing Ethiopia Tamrit initiative to ensure available funds are utilized optimally - Conduct a detailed budget planning exercise for each intervention to identify and justify the required allocation - Explore alternative funding sources, such as public-private partnerships or international development assistance and facilitate forex access to implement priority initiatives
Security: Political instability or social unrest may affect the smooth implementation of the strategy		- Maintain transparency and openness in the implementation process to build trust and gain public support - Work towards addressing social and economic inequalities to promote inclusivity and social cohesion - Foster dialogue and collaboration with relevant stakeholders, including local communities and civil society organizations
Implementation skill gap: The workforce may lack the necessary skills and expertise to support the strategy's implementation and to efficiently produce and market competitive products		- Partner with educational institutions and vocational training centers to tailor courses to industry needs - Establish apprenticeship and mentorship programs to transfer knowledge from experienced professionals to newcomers - Provide incentives for workers to acquire and enhance their skills through training and professional development - Implement comprehensive training and capacity-building programs to enhance the skills of the labor force
Corruption risk: Potential for corruption and unethical practices during the implementation of the strategy		- Promote transparency, accountability, and strong ethical standards to reduce opportunities for corrupt practices and encourage accountability among stakeholders - Implement strong governance and oversight to monitor progress and ensure compliance with ethical standards - Regularly conduct independent audits to assess the strategy's progress and identify potential irregularities to help identify areas that require improvement

Monitoring and evaluation risks: Inadequate monitoring and evaluation could lead to inefficient implementation and missed targets		- Develop a robust monitoring and evaluation framework with clear indicators and milestones - Regularly assess the progress of interventions and make data-driven adjustments as needed - Ensure transparency and accountability in the monitoring process to track the strategy's impact accurately

7. Annex VII: Current tariff rates for priority commodities

i. Food and beverage sub-sector current tariff rates of priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code (HS4)	Tariff Rate
Food and beverage	Grains	Malt	1107 1901	15% 15%
Food and beverage	Grains	Wheat – pasta, macaroni	1902	25%
Food and beverage	Sugar	Sugar, confectionary	1701 1702 1704	35% Free 35%
Food and beverage	Oilseeds	Edible oil	1510 1515 1516	15% 15% 15%
Food and beverage	Fruits and vegetables	Fruit juice, mango pulp, mango concentrate	0804	25%
Food and beverage	Food preparations n.e.s[364]	Food preparations*	2106	15%
Food and beverage	Grains	Corn flour Corn starch Corn flakes	1102 1108 1904	15% 5%
Food and beverage	Grains	Bakery products, biscuits, cookies	1905	35%
Food and beverage	Grains	Wheat or meslin flour	1101	15%
Food and beverage	By products	Animal feed	2309	Free (except dog and cat food – 35%)
Food and beverage *(expert input)*	By products	Enriched foods (plumpy nut, CSB+, CSB++, Famix)	-	

[364] Note (*) - baking powder, yeast, and other leavening compounds; peanut butter; packaged tea, including instant; ground spices; and vinegar and cider

ii. Textile and apparel sub-sector current tariff rates of priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Textile and apparel	Apparel (Knitted)	Trousers, overalls, shorts	6103	35%
Textile and apparel	Apparel (Knitted)	Men's or boy's underwear (briefs, boxers, pants, etc.)	6107	35%
Textile and apparel	Apparel (Knitted)	Babies' or infant garments such as jumpsuits, rompers, tank tops, and complete garments (3pc, 5pc, 7 pc, etc) made from cotton and synthetics	6111	35%
Textile and apparel	Apparel (Knitted)	T-shirts, singlets, tank tops, and other sleeveless upper wears made from cotton textile materials	6109	35%
Textile and apparel	Apparel (Knitted)	Long or short stockings, socks, and similar articles of stockings	6115	35%
Textile and apparel	Apparel (Woven)	Night dresses and pyjamas made from woven fabrics	6208	35%
Textile and apparel	Apparel (Woven)	Suit-type jacket and blazer not made from wool	6103 6104	35% 35%
Textile and apparel	Apparel (Woven)	Men's or boy's shirts	6105 6205	35%
Textile and apparel	Apparel (Woven)	Scarves, shawls, and similar articles worn around the neck or shoulder made from synthetic sources	6117	35%
Textile and apparel	Apparel (Woven)	Garments made from nonwovens	6210	35%
Textile and apparel *(expert input)*	Textile (Fibres)	Artificial filament tow	5502	Free

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Textile and apparel *(expert input)*	Textile (Fibres)	Staple fibres of polyesters not carded, combed, or otherwise processed for spinning	5503	Free
Textile and apparel *(expert input)*	Textile (Fibres)	Cotton waste (excluding yarn waste, thread waste, and garneted stock)	5202	Free
Textile and apparel *(expert input)*	Textile (Fibres)	Artificial acetate filament tow	5502	Free
Textile and apparel *(expert input)*	Textile (Fibres)	Cotton neither carded nor combed	5201	Free
Textile and apparel *(expert input)*	Textile (Yarn)	Textured polyester filament yarn	5402	Free
Textile and apparel *(expert input)*	Textile (Yarn)	Filament yarn of polyester	5402	Free
Textile and apparel *(expert input)*	Textile (Yarn)	Dyed folded or cabled yarn made of acrylic or modacrylic staple fibres	5509	15%
Textile and apparel *(expert input)*	Textile (yarn)	Folded or cabled yarn containing polyester staple fibres	5509	Free
Textile and apparel *(expert input)*	Textile (yarn)	High-tenacity filament yarn of polyesters	5402	Free
Textile and apparel *(expert input)*	Textile (yarn)	Sewing thread of synthetic filaments	5401	5% – 15%
Textile and apparel *(expert input)*	Textile (woven fabric)	Woven fabrics made ≥ 85% textured and non-textured polyester fibre	5407	15% – 25%
Textile and apparel *(expert input)*	Textile (woven fabric)	Woven fabrics made from different high-tenacity man-made fibres	5407	15% – 25%
Textile and apparel *(expert input)*	Textile (woven fabric)	Dyed textured woven fabric made ≥ 85% textured polyester fibre	5407	15% – 25%

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted, crocheted, or piled fabrics other than cotton and man-made sources.	6001	25%
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted pile fabrics made from man-made fibres	6001	25%
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted fabrics containing elastomeric yarn	6006	15% – 25%
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted long pile fabrics	5801 5806	25% 25%
Textile and apparel *(expert input)*	Textile (knitted fabric)	Printed knitted or crocheted synthetic fabrics containing elastomeric yarn	6006	15% – 25%
Textile and apparel *(expert input)*	Textile (knitted fabric)	Dyed knitted or crocheted synthetic fabrics containing elastomeric yarn	6006	15% – 25%
Textile and apparel *(expert input)*	Textile (knitted fabric)	Knitted or crocheted looped pile fabrics	6001	25%
Textile and apparel *(expert input)*	Textile (non-woven fabric)	Nonwovens made from man-made fibres with GSM 25-150	5603	15%
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made with other types of techniques including tufting, needlefelt, hooked rug, etc	5705	35%
Textile and apparel *(expert input)*	Textile (special fabric)	PVC-coated textile fabrics	5903	5%
Textile and apparel *(expert input)*	Textile (special fabric)	Tyre cord fabrics	5902	5%
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made from animal hair fibres	5701	35%
Textile and apparel *(expert input)*	Textile (special fabric)	Narrow woven fabrics with a width of ≤ 30cm with or without elastane/rubber yarn	5806	25%

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Textile and apparel *(expert input)*	Textile (special fabric)	Coated textile fabrics with plastics	5903	5%
Textile and apparel *(expert input)*	Textile (special fabric)	Narrow woven fabrics with a width of </= 30cm and not made with cotton or man-made fibres,	5806	25%
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made from plant fibres or coarse animal hair fibres	5703	35%
Textile and apparel *(expert input)*	Textile (special fabric)	Open lightweight woven fabric made from cotton and used for medical purposes	5803	25%
Textile and apparel *(expert input)*	Textile (special fabric)	Carpets made with knotting	5701	35%
Textile and apparel *(expert input)*	Textile (special fabric)	Technical textiles	5911	5%
Textile and apparel *(expert input)*	Textile (special fabric)	A braided fabric made by inter-weaving three or more strands, strips, etc	5608	Free – 15%
Textile and apparel *(expert input)*	Apparel (Knitted)	T-shirts, singlets, tank tops, and other sleeveless upper wears made from textile materials other than cotton	6109	35%
Textile and apparel *(expert input)*	Apparel (Knitted)	Sports t-shirts and sleeveless t-shirts, pullovers with hood or without hood, cardigans (sweater jackets) excluding wool and fine animal hair	6110	35%
Textile and apparel *(expert input)*	Apparel (Knitted)	Sports t-shirts and sleeveless t-shirts, pullovers with hood or without hood, cardigans (sweater jackets) with wool and fine animal hair	6110	35%
Textile and apparel *(expert input)*	Apparel (Knitted)	Different babies' or infant garments such as jumpsuits, rompers, tank tops, complete garments (3pc, 5pc, 7 pc, etc.) excluding cotton and synthetics sources	6111	35%
Textile and apparel *(expert input)*	Apparel (Knitted)	Sport trouser and jacket set	6112	35%

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Textile and apparel *(expert input)*	Apparel (Knitted)	Jacket-like garments	6104	35%
Textile and apparel *(expert input)*	Apparel (Woven)	Trousers, shorts, overalls, or overall made from woven fabric	6203	35%
Textile and apparel *(expert input)*	Apparel (Woven)	Sports trousers and jacket set made of synthetic	6211	35%
Textile and apparel *(expert input)*	Apparel (Woven)	Dress made from synthetic materials	6204	35%
Textile and apparel *(expert input)*	Apparel (Woven)	Jacket-like garments made from woven fabric	6203	35%
Textile and apparel *(expert input)*	Apparel (Woven)	Scarves, shawls, and similar articles worn around the neck or shoulder made from wool, silk, silk waste, etc.	6214	35%
Textile and apparel *(expert input)*	Apparel (Woven)	Sport trousers and jacket set made of woven fabrics	6211	35%
Textile and apparel *(expert input)*	Apparel (Woven)	Trousers, shorts, overalls, or overalls, made from woven fabric of cotton	6203	35%

iii. Leather and leather products sub-sector current tariff rates of priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Leather and leather prod.	Footwear	Leather footwear (leather casual shoe and luxury shoe)	6402 6403 6404 6405	35% 35% 35% 35%
Leather and leather prod.	Footwear	Other footwear (ladies' shoe, non-leather shoe, sport shoe, safety shoe)	6402	35%

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Leather and leather prod.	Footwear	Other footwear of rubber or plastic	6402	35%
Leather and leather prod.	Leather product	Leather goods	4201 4202 4203	25%
Leather and leather prod. *(expert input)*	Leather product	Non-Leather goods	-	35%
Leather and leather prod. *(expert input)*	Footwear	Shoe upper	6406	5%
Leather and leather prod. *(expert input)*	Footwear	Soles, lasts, and moulds	6406	5%
Leather and leather prod. *(expert input)*	Accessories	Other accessories and components	-	-

iv. Chemical and construction inputs sub-sector current tariff rates of priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Chemical and construction	Chemicals	Soaps and detergent	3401	35% (excluding soap noodles – 15%)
Chemical and construction	Chemicals	Paints and varnishes	3208 3209 3210	35% (excluding lacquers – 15%) 35% (excluding lacquers – 15%) 35% (excluding lacquers – 15% and those prepared with water pigments – 5%)
Chemical and construction	Chemicals	Toiletries	3303 3307	25% 25%
Chemical and construction	Chemicals	Solvents and thinners	3814	15%

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Chemical and construction *(expert input)*	Chemicals	Basic chemicals	3202 3204 2814 2905 3901	5% 5% 5% 5% 5%
Chemical and construction *(expert input)*	Chemicals	Adhesive and other construction chemicals	3506	15%
Chemical and construction	Plastic and rubber	Other articles of plastic	3926	15% – 35%
Chemical and construction	Plastic and rubber	Other plates of plastics, noncellular and not reinforced	3920	5% – 15%
Chemical and construction	Plastic and rubber	Plastic tubes & fittings	3917	25% (except tubes of diameter exceeding 630 mm – 5%)
Chemical and construction	Plastic and rubber	Other plastic plates, sheets etc.	3921	5% – 15%
Chemical and construction	Plastic and rubber	Polyacetals	3907	5% (except alkyd resins – 15%)
Chemical and construction	Plastic and rubber	Other articles of vulcanized rubber	4016	35% (except erasers and gaskets, washer, and other seals – 15%)
Chemical and construction *(expert input)*	Plastic and rubber	Foam mattress	9404	35%
Chemical and construction *(expert input)*	Plastic and rubber	Tyre and rethreaded tyre	4011 4012	35% - motor vehicles and others; 25% - bicycles and motorcycles; 15% - busses, agriculture vehicles/machines, and construction/mining vehicles/machines, and Free for aircraft 35% - motor vehicles; 25% - others; 15% - busses, and Free for aircraft

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Chemical and construction *(expert input)*	Plastic and rubber	Ballpoint pen	9608	35% (except refills, pen nibs and nib points, and others – 15%)
Chemical and construction *(expert input)*	Plastic and rubber	Polypropylene bag	3923	35%
Chemical and construction *(expert input)*	Plastic and rubber	Film packaging	3923	35%
Chemical and construction *(expert input)*	Wood and furniture	Packing lids and containers	4415	35%
Chemical and construction *(expert input)*	Wood and furniture	Furniture and parts	9403	35% (except metal racks, wooden racks, and parts – 15%)
Chemical and construction *(expert input)*	Pulp and paper	Paper packaging/carton	4819	35%
Chemical and construction *(expert input)*	Pulp and paper	Female sanitary pads, diapers, and wipes	4818	35%
Chemical and construction *(expert input)*	Pulp and paper	Pulp and paper	4701 4702 4703 4704 4802	Free Free Free Free 5%

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Chemical and construction *(expert input)*	Glass	Container glass	7010	15%

v. Metal and engineering sub-sector current tariff rates of priority commodities

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Metal and engineering	Basic iron and steel	Structures and parts, of iron or steel	7308	35%
Metal and engineering	Basic iron and steel	Aluminium bars	7604	5% - bars and rods; 25% - profiles
Metal and engineering	Basic iron and steel	Flat rolled iron, width > 600mm, clad	7210	15% – 35%
Metal and engineering	Basic iron and steel	Hot rolled bars of iron	7213	35%
Metal and engineering	Basic iron and steel	Tanks of iron or steel	7309 7310	35% 25%
Metal and engineering	Basic iron and steel	Cloth of iron or steel wire	7314	15% – 35%
Metal and engineering	Basic iron and steel	Other tubes, pipes and hollow profiles	7304	Free – 15%
Metal and engineering	Vehicles	Parts of aircrafts	8803	Free
Metal and engineering	Vehicles	Parts of motor vehicles	8708	25%

Sub-sector	Sub-category	Value-chain (HS4 Product Category)	HS Code	Tariff Rate
Metal and engineering	Vehicles	Motor vehicles	8702 8703	Free – 15% 5% – 35%
Metal and engineering	Machinery and equipment	Electrical transformers	8504	15% – 25%
Metal and engineering	Machinery and equipment	Centrifuges	8421	5% (except cream separators – Free; for road motor vehicles – 25%)
Metal and engineering	Machinery and equipment	Electrical boards	8537	Free – solar charge controller; 5% – 15% – others
Metal and engineering	Machinery and equipment	Electrical motors, generators	8501	Free – CKD; 5% - SKD; 15% - CBU
Metal and engineering	Machinery and equipment	Electrical ignition equipment	8511	15% – 25%
Metal and engineering	Machinery and equipment	Pumps and compressors	8414	15% (except parts – 5%)
Metal and engineering	Machinery and equipment	Insulated electrical wires	8544	35%
Metal and engineering	Machinery and equipment	Electrical apparatus and parts	8536	15% (except presented SKD for the assembly industry – 5%)
Metal and engineering	Machinery and equipment	Machinery - food, drink	8438	Free (except parts – 5%)