

## Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Ethiopia

### Part I: Project Information

**GEF ID**

10683

**Project Type**

FSP

**Type of Trust Fund**

GET

**CBIT/NGI**

☐ CBIT

☐ NGI

**Project Title**

Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Ethiopia

**Countries**

Ethiopia

**Agency(ies)**

UNIDO

**Other Executing Partner(s)**

Ministry of Industry of Ethiopia

**Executing Partner Type**

Government

**GEF Focal Area**

Chemicals and Waste

**Taxonomy**

Focal Areas, Chemicals and Waste, Disposal, Open Burning, Green Chemistry, Persistent Organic Pollutants, Unintentional Persistent Organic Pollutants, Best Available Technology / Best Environmental Practices, Sound Management of chemicals and waste, Waste Management, Industrial Waste, Hazardous Waste Management, Influencing models, Convene multi-stakeholder alliances, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Stakeholders, Private Sector, SMEs, Individuals/Entrepreneurs, Large corporations, Local Communities, Communications, Public Campaigns, Strategic Communications, Education, Awareness Raising, Behavior change, Gender Equality, Gender results areas, Capacity Development, Access to benefits and services, Participation and leadership, Knowledge Generation and Exchange, Gender Mainstreaming, Women groups, Sex-disaggregated indicators, Beneficiaries, Gender-sensitive indicators, Capacity, Knowledge and Research, Theory of change, Learning, Enabling Activities, Knowledge Exchange, South-South, North-South, Innovation, Knowledge Generation, Training, Professional Development, New Persistent Organic Pollutants, Polychlorinated Biphenyls, Type of Engagement, Information Dissemination, Participation, Partnership, Consultation

**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 1

**Climate Change Adaptation**

Climate Change Adaptation 0

**Duration**

60 In Months

**Agency Fee(\$)**

285,000.00

**Submission Date**

9/21/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CW-1-1	GET	3,000,000.00	20,140,000.00
	Total Project Cost (\$)	3,000,000.00	20,140,000.00

## B. Indicative Project description summary

### Project Objective

To promote the concept of circular economy (CE) in the textile and garment (TG) sector of Ethiopia through the reuse, recycling and conversion of textile/garment discards and related wastes into economically viable and socially beneficial products and services.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Strengthening of regulatory and institutional capacities for adoption and promotion of Circular Economy in the textile and garment (TG) sector.	Technical Assistance	1.1 Strengthened regulatory and institutional framework and capacities for adoption of Circular Economy in the TG sector.	1.1.1 Legal and institutional framework for life cycle management of the TG supply/value chains.  1.1.2 Regulations and incentive scheme for promotion and sustainability of circular economy in the TG sector.  1.1.3 Technical Committee for Circular Economy in the TG sector	GET	286,000.00	1,608,500.00



2. Recyclability of textile and garment wastes is enhanced through POPs-free textile manufacturing process and the implementation of BAT/BEP and RECP investments.	Technical Assistance	2.1. BAT/BEP/RECP and Circular Economy concept are implemented through technical assistance in selected textile production facilities for the ESM and prevention / reduction of POPs, hazardous chemicals and wastes while improving process efficiency and profitability at plant level.	2.1.1. Technical guidelines for environmentally sound management of POPs chemicals and wastes  2.1.2 Standard operating procedures (SOPs) and checklists POPs pollution prevention and control  2.1.3 Techno-economic feasibility of BAT/BEP and RECP options  2.1.4 Training and Capacity building in BAT/BEP, RECP and Circular Economy.	GET	143,000.00	1,126,000.00
2.	Investment		2.1.5 BAT/BEP and RECP options implemented in at least two facilities.	GET	286,000.00	2,412,500.00
3. Introduction of Circular Economy concept for UPOPs emission	Technical Assistance	3.1. BAT/ BEP and Circular Economy concept are implemented through technical	3.1.1 Environmentally sound	GET	357,500.00	2,462,500.00

reductions through ESM of textile and garment wastes and pilot demonstration of textiles/garment wastes recycling and reuse.

assistance in selected TG and recycling facilities for the reuse, recycling and ESM of textile and garment wastes.

management (ESM) plan for textile/garment wastes.

3.1.2 Training and capacity building in ISWM and BAT/BEP for ESM of textile and garment wastes.

3.1.3 Financing mechanisms and business models for circular economy.

3.1.4 Techno-economic feasibility study of BAT/BEP options for recycling/reuse of textile and garment wastes.

3.1.5 Socio-economic impact assessment of project intervention

3.1.6 Partnership and cooperation

mechanism  
supply chain  
management.

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3.	Investment	3.1.7 BAT/BEP demonstration for ESM of POPs chemicals and textile/garment wastes	GET	1,430,000.00	9,600,000.00
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4. Knowledge management for scaling up	Technical Assistance	4.1. Up scaling of project results to global textile and garment sectors and reporting to MEAs via access to knowledge.	4.1.1 National capacity and awareness programmers increase ability of textile sector and policy makers to manage and control POPs and Cocs  4.1.2. Global Knowledge Exchange and Management tools accessed by users globally  4.1.3 Gender and Social Action Plan implemented and benefits accrued to women workers  4.1.4 Sustainability assessment and opportunities for replication and up scaling.	GET	250,250.00	1,608,000.00
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5. Monitoring and evaluation.	Technical Assistance	5.1 M&E framework in accordance with UNIDO and GEF requirements	5.1.1. Project progress monitoring and reporting  5.1.2 Mid-term review and terminal evaluation conducted.	GET	107,250.00	482,500.00
Sub Total (\$)					2,860,000.00	19,300,000.00
Project Management Cost (PMC)						
GET					140,000.00	840,000.00
Sub Total(\$)					140,000.00	840,000.00
Total Project Cost(\$)					3,000,000.00	20,140,000.00

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Government of Ethiopia	In-kind	Recurrent expenditures	5,000,000.00
Recipient Country Government	Government of Ethiopia	Grant	Investment mobilized	240,000.00
Private Sector	Bahir Dar Textile factory, Kombolcha textile, MAA Garment and Textiles, Trio craft plc, Edget Garment P.L.C., Velocity Apparelz Companies PLC and other TG companies. Etur textile plc and other recycling companies.	In-kind	Recurrent expenditures	6,000,000.00
Private Sector	Bahir Dar Textile factory, Kombolcha textile, MAA Garment and Textiles, Trio craft plc, Edget Garment P.L.C., Velocity Apparelz Companies PLC and other TG companies. Etur textile plc (Ethiopia) and other recycling companies.	Grant	Investment mobilized	7,000,000.00
Others	Ethiopian Textile Industry Development Institute (ETIDI), Ethiopian Textile/garment manufacturers' association (ETGAMA) PVH, H&M Ellen MacArthur foundation and ZDHC	In-kind	Recurrent expenditures	1,500,000.00
Others	Ethiopian Textile Industry Development Institute (ETIDI), Ethiopian Textile/garment manufacturers' association (ETGAMA) PVH, H&M Ellen MacArthur foundation and ZDHC	Grant	Investment mobilized	200,000.00
GEF Agency	UNIDO	Grant	Investment mobilized	50,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	150,000.00
Total Project Cost(\$)				20,140,000.00

Describe how any "Investment Mobilized" was identified

Through the consultation meetings held to develop the PIF, the Government committed to invest to support the project's objective. This is foreseen through the Government's conducive investment friendly program, attracting more investments and foreign capital and through their involvement in developing and strengthening of regulatory and institutional capacities, incentive scheme for promotion and sustainability of circular economy in the TG sector. Through the assistance of USAID, the government developed a Green Manufacturing strategy which aims to promote circular economy through creating new green industries and greening of existing industries. The Ethiopian government will have to invest in capacity building and training; development/establishment of environmental management plans/systems, structures and standards; investment in new monitoring equipment/devices; and waste segregation, collection and treatment facilities. The promotion of the circular economy and the pilot demonstration of recycling textile and garment wastes will be implemented and will involve undertaking the review of the existing waste management policies; identification and analysis of gaps; training and capacity building; industry facilities retrofitting and upgrading; acquisition of environment sound technologies (ESTs); provision of waste management infrastructure/facilities and establishment of sustainable financing mechanisms. Specially, the development of an integrated waste management system will involve policy review; development of planning tools (waste management modeling; database management; monitoring and evaluation tools; chemical tracking and labeling; emission estimation etc.); waste characterization; assessment and evaluation of appropriate waste treatment technologies; life cycle assessment; implementation mechanism (public-private partnership, etc.); and application of smart system (data acquisition and storage, data communication, remote sensing and global positioning and remote sensing). Government investment is foreseen in these areas to provide the requisite investment resources in capacity building and training; infrastructure development; provision of green investment financing to prospective entrepreneurs. The investment will be mobilized for the acquisition of green technologies and BAT/BEP that will require process plant modification, installation of new equipment, training of operating personnel and introduction of innovative techniques and practices. UNIDO through their supply chains, will get the buy-in of international brands such as PVH and H&M. The aim is to collaborate with the private sectors to implement the international brands CSR and sustainability programs such as: Better Cotton Initiative, Eco design, Partnership for a Cleaner Textile PaCT, Science Based Targets initiative, AFIRM, Zero Discharge of Hazardous Chemicals (ZDHC), etc. The international brands will also invest in improving the productivity and environmental performance of their suppliers by supporting their participating in the relevant CSR and sustainability programmes. The project will benefit from the training programmes and workshops developed and run by Ellen MacArthur Foundation and ZDHC training programmes. EMF co-financing will be expected through their information and knowledge on Circular Economy and training toolkits and methodologies on CE. The co-financing expected from the government for the activities described above was calculated based on UNIDO's experience of implementing similar integrated municipal solid waste management and recycling projects. The private sector co-financing will be further defined during PPG and other bi-lateral contributions (e.g. Italy, China and Japan) is being explored through collaboration and partnership programmes. The co-financing amount was calculated based on the costing methodology for implementation of similar RECP/BAT/BEP and recycling operation. Specifically the cost of textile wastes recycling and conversion equipment, the cost was estimated on quote received from manufactures and experiences operating similar facilities. These are estimated and will be further refined during PPG. However, the counterparts were also consulted and informed of the minimum co-financing requirement of the GEF, which for LDC status of Ethiopia is a minimum of 6:1. During the process to develop the PIF, ETIDI and ETGAMA provided support to contact the private sector and provide data/information on the TG sector baseline. ETIDI co-financing is expected through providing support in capacity building, design and Garment training classes and facilities, market linkage, policy advocacy, logistics facilitation and laboratory testing and inspection. ETGAMA will provide investment in support of the textile business through coordinating networking, information sharing and dissemination, and partnership facilitation and management.

**D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds**

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNIDO	GET	Ethiopia	Chemicals and Waste	POPs	3,000,000	285,000	3,285,000.00
Total GEF Resources(\$)					3,000,000.00	285,000.00	3,285,000.00



E. Project Preparation Grant (PPG)  
PPG Required



PPG Amount (\$)				PPG Agency Fee (\$)			
100,000				9,500			
Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNIDO	GET	Ethiopia	Chemicals and Waste	POPs	100,000	9,500	109,500.00
Total Project Costs(\$)					100,000.00	9,500.00	109,500.00

Core Indicators

Indicator 9 Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products (metric tons of toxic chemicals reduced)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
3.50	0.00	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride	3.50			

Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.3 Hydrochlorofluorocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
1			

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.6 Quantity of POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

3,690.00

Indicator 10 Reduction, avoidance of emissions of POP to air from point and non-point sources (grams of toxic equivalent gTEQ)

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
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7.50

Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
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1

Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	2,000			
Male	1,000			
Total	3000	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

It is estimated that project will reduce, dispose/destroy, phase out, eliminate and avoid 3.5 tons of PFOS and assuming 5% of waste stock is contaminated then 3,690 tons of POPs contaminated wastes will be avoided in the environment and in processes, materials and products. Furthermore, the project will result in the reduction of 7.5 grams of toxic equivalent gTEQ of emissions of POPs to air from point and non-point sources. These targets are estimated based on the data available and will be elaborated during the PPG phase. The numbers were calculated based on the following assumptions: i. Metric tons of toxic chemicals reduced: This figure (3.5 Metric tons of toxic chemicals reduced) based on the initial assessment of the industries in terms of PFOS used in the textile and garment production, which need to be ascertained during PPG phase. This is the estimated direct benefit, however indirect benefits will also be derived through information exchange and experience sharing with other industries and the co-financing to be mobilized by the Government and other counterparts. This will be established during the PPG phase. ii. Amount of wastes: The preliminary estimates of the amount of waste in tons burned, incinerated or dumped in landfills in the country is 25,000 tons . However visits were undertaken only some of the industries and there are still many to be visited. Hence the estimated UPOPs emission reduction is direct benefits. Indirect benefits will also be derived from resource efficiency and productivity improvement that will increase the economic competitiveness and profitability of the textile and garment sector companies and increase their outputs and reduce the volume of wastes generated. During the PPG phase, the amount of wastes generated, recycled, landfilled, open burnt and disposed will be thoroughly assessed and estimated. Based on UNEP uPOPS emission toolkit for open burning of wastes operation, the uPOPs emission factor is 300 µg TEQ/ tons of wastes. The emission is calculated as follows: (300 µg TEQ/ tons of wastes.) \*25,000 tons of wastes= 7,500,000 µg TEQ/1,000,000= 7.5 g TEQ The estimated total amount of waste generated 100,000 tons of which 1,200 tons and 25,000 are recycled and incinerated respectively. The balance 72,800 tons are disposed in open dumpsites. Based on initial estimate of 5% contamination, this gives 3690 tons of contaminated wastes. These targets will be achieved within the lifespan of the project. However, based on the buy-in by other players in the TG sector, these targets can be exceeded. Based on further consultations, assessment studies and awareness raising during the PPG, more detailed timeline for the achievement on the targets will be elaborated. Direct beneficiaries of this project will be: • Private sector companies' employee (with an estimated number of 2 companies for the pilot demonstration) involved in the production, who will be trained on BAT/BEP/RECP. This training will also be open for the wider TG sector companies. • Policy makers will be trained on legal and institutional framework for Environmentally Sound Management (ESM) of POPs and Circular Economy concept. • Regulatory, compliance monitoring bodies and custom officers will be trained on Hazardous chemicals tracking, monitoring and enforcement. • Training banking and financial institutions on green financing appraising. • Prospective entrepreneurs who are interested in recycling business will be trained. • Training of NGOs and public awareness raising on hazardous chemicals including POPs, recycling and investment opportunities. It is expected that project will benefit more women than men since the majority of the workers in the global TG sector are women, constituting up to or more than 80 per cent of the workers in the rapidly growing textile and garment sector in Ethiopia.

## Part II. Project Justification

### 1a. Project Description

#### a. The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

1. The garment production industry is a highly resource-intensive sector activity. According to the report from Ellen MacArthur Foundation, “A new textiles economy: redesigning fashion’s future”, in 2015 alone, the industry’s greenhouse gas (GHG) emissions from textiles production totaled 1.2 billion tonnes (1,200 million tonnes in Europe) of CO<sub>2</sub> equivalent, more than all international flights and maritime shipping emissions together. Textile production (including cotton farming) uses around 93 billion (93 million in Europe) cubic meters of water annually, which is about 4% of global freshwater withdrawal. Garment manufacturing uses over 66% of this water. Each year, around 0.5 million tonnes of plastic microfibers, equivalent to more than 50,000 million plastic bottles, resulting from textiles washing are estimated to be released into the ocean. More than USD 100 billion worth of materials each year is lost due to the fact that less than 1% of the material used to produce clothing is recycled into new clothing and only 13% of the total material input is in some way recycled after clothing use.
2. Hazardous chemical use has negative impacts across all parts of the value chain. Significant volumes of chemicals are used to produce clothing and other textiles. There is little data or transparency about which chemicals used cause concern or their full impact on human health and the environment during the production, use, and after-use phases. 20% of industrial water pollution globally is attributable to the dyeing and treatment of textiles.
3. The two major environmental impacts of textile production and processing are basically the discharge of chemical pollutants including POPs; and the consumption of water and energy. Moreover, many textile industries in many African countries are still using POPs chemicals in their industrial operations and due to lack of waste management policy framework and infrastructure; off cuts and textiles discards are either disposed in open burning operations and or in open landfills. The open burning operations results in the emission of dioxins and furans and greenhouse gases with serious harmful effects on humans and the environment.
4. Many African countries have been experiencing rapid industrialization particularly in the agro-industry and agro-allied sector in which the continent enjoys some comparative advantages due to abundance and low cost of raw materials and labor. The rapid industrialization has resulted partly because of the incentives and opportunities offered by the African Growth Opportunity Act (AGOA), a preferential trade agreement to facilitate exports from African countries to the United States through duty-free entrance of certain products into the United States including textiles. The combined apparel and footwear market in sub-Saharan Africa is estimated to be worth US\$ 31 billion, according to data from Euromonitor International. Africa’s textile and garment industry is optimistic that, its shipments to the United States, the world’s biggest market for such products, will surge following the 10-year renewal of AGOA.
5. The textile and clothing industry is the second largest employer after agriculture in Africa. A large percentage of its workforce is made up of women. The industry is labour intensive and offers large employment opportunities, particularly for youth and women.
6. Ethiopia is aiming to generate USD 30 billion in export revenue from the textile apparel and accessories sector by 2030, the country is investing in more than 10 industrial parks (most of them dedicated to textile and garment manufacturing) to accelerate textile production and the country’s productivity as well as developing a heavy industry that will allow its full industrialization by 2025. The textile and garment sector contributes significantly to the national economy and to

the national export of goods and services. The Ethiopian textile and apparel industry has grown an average of 51% over the last 5-6 years.

7. Table 1 below shows the output, export and employment growth between 2016 and 2019.

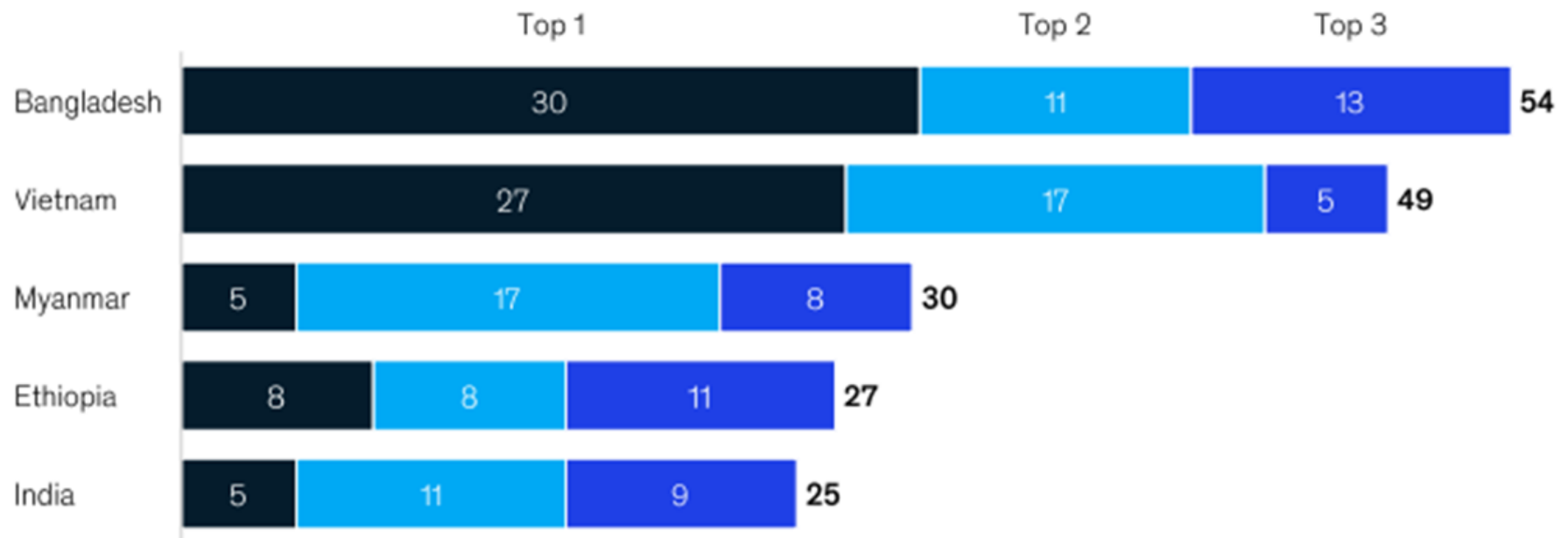
	2016/17	2017/18	2018/19
Output Volume (GVP) (in Million USD)	532	603	584
Export Volume (in Million USD)	89.3	109	157.5
Employment Generated (in thousands)	105	120	127

8. According to McKinsey's 2019 Chief Purchasing Officer (CPO) survey that reflects the perspectives of 64 participating sourcing executives, who are responsible for a total sourcing value of over USD 100 billion, Ethiopia is the only African country seen as one of the top highly rated countries in terms of its growth prospects. Furthermore, based on the consultation meetings with the international brands, Ethiopia was emphasized as the new hub for textile and garment production in Africa and was dubbed the "Bangladesh of Africa".



## “What do you see as the top 3 country hot spots up to 2025?”

Percentage of respondents, n = 64



SOURCE: McKinsey Apparel CPO Survey 2019

9. The Ethiopian TG sector presents big challenges that are common to the different countries: weak policy and institutional framework, skills shortage, lack of industry-specific training facilities, and inadequate physical infrastructure for sound management of solid wastes. Thus, leading to most of the wastes, off-cuts and discards from the TG industries to be disposed through open burning operations and at dumpsites and improvised landfills. UNIDO is therefore developing the project initiative to promote Circular Economy in the textile and garment value chain in Ethiopia through sustainable management of POPS chemicals and wastes; and the reuse, recycling and re-manufacturing of textile/garment discards and wastes. In addition to promoting the economic competitiveness of the sector the project will also support the adoption of international best practices and compliance with international standards, norms and/or regulations.

10. The vulnerability of the country to climate change has been taken into consideration in this project. The textile and garment sector industries also have business dealings and/or supply contracts with many of the international fashion brands/retail outlets who are members of the Sustainable Apparel Coalition (SAC), AG Apparel and Footwear International Restricted Substances List Management (AFIRM) Group or others and have signed the Science Based Targets Initiative in September 2018 committing to set emission reduction targets consistent with global efforts to limit warming to well below 2 degrees Celsius. This will provide the opportunity for local industry to work and collaborate with these players at the downstream segment of the supply/value chains to promote sustainable consumption and production as part of their corporate social responsibility and mobilize private sector financing to leverage GEF financing.

11. During the consultation meetings held with the country to develop this proposal, the TG sector emerged as a key growing sector but with one of the priority sources of POPs, hazardous chemicals use, waste, hazardous waste and wastewater generation as well as water and energy consumption necessitating urgent local, national and international actions. Based on the consultations meetings with the The Environment, Forest and Climate Change Commission (EFCCC) and Industry, the national governments expressed the urgent need to take action to advance in the circular economy agenda due to the NIP Updates Ethiopia as well as the growing natural resources demand and associated environmental/ health problems, In order to achieve this, the primary objective is promoting BAT/ BEP/ RECP measures in the whole TG sector, taking into consideration specific country-based features of the sector, common practices and the socio-economic scenario of each country in order to move forward while reducing/ avoiding economic, social and environmental impacts.

12. Several root causes and barriers to the full implementation of Circular Economy in the TG sector including commitments set by the Stockholm Convention (SC) have been identified in general terms during the stage of PIF preparation in Ethiopia. Major barriers include the following:

- Insufficient or weak legal and regulatory framework. No specific BAT and BEP legal framework and promotion in the TG industry exists in the project participating country.
- Lack of capacity for implementing, enforcing and monitoring rules and standards;
- Limited human and financial resources;
- Lack of technical information about Circular Economy, BAT, BEP and RECP options;
- Absence or limited local technical expertise;
- Lack of incentives to encourage the adoption of BAT/ BEP/ RECP.
- Inadequate physical infrastructure for sound management of solid wastes.
- TG wastes disposal through open burning operations and at dumpsites and improvised landfills.
- Vulnerability to climate change.
- Lack of awareness.

#### **b. The baseline scenario and any associated baseline projects**

13. In the absence of the proposed GEF project, open burning of TG wastes containing POPs chemical will continue resulting in high level of uPOPs emissions, as well as wastes being disposed at dumpsites and improvised landfills. Also, the lack of sufficient policy and regulatory framework will continue. There will be lack of technical information and awareness about Circular Economy, BAT, BEP and RECP options. The continuity of the current status at the participating country will hamper the development of this country and harm the environment. Without the involvement of the GEF, TG wastes management would probably improve marginally due to limited investment. This will lead to a severe impact on the environment and human health as well as a loss of valuable resources, which could otherwise be recovered to re-enter the production process. Also, there will be no regional cooperation and partnerships between Ethiopia and the participating countries in UNIDO regional project “Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Lesotho, Madagascar and South Africa” and collaboration with other players in the global TG supply chain.

#### *Baseline scenario*

14. The textile and garment sector is among the priority sectors identified by the Ethiopian government in transforming the country's traditional agricultural based economy to industrialization. It is an important source of income that provides employment for over 450,000 people (2013), up more than 200% from 2010/11 engaged directly and indirectly in the cotton and textile production chain (International Trade Center, Textile and Clothing value Chain Road-map of Ethiopia (2016-2020). Besides, there are thousands indirectly employed in the informal, artisanal hand-loom weaving sector comprising SME's engaged in production of traditional fabrics. The livelihood of thousands of cotton growers depends on the textile industry. Clearly, the government policy encourages the development of the textile industry. This is being achieved by attracting Foreign Direct Investment (FDI), modernization of the existing textile mills, provision of incentives and capacity building measures. The government has established a dedicated Textile & Apparel Industry Development Institute (ETIDI) under the Ministry of Trade & Industry. The institute is responsible for overseeing the development of the sector and formulation and implementation of relevant policies.

15. Annual production is estimated to include 102,000 tons of yarn, 207 million meters of woven fabric, 50 million kg of knitted fabric, 63 million pieces of knitted garments, and 28 million pieces of woven garments. According to the information from Ethiopian Textile Industry Development Institute (ETIDI), there are:

- 25 cotton farms
- 18 ginning factories
- 31 integrated textile factories producing both textiles and garment.
- More than 70 garment industries which operate in and outside of the industrial parks and manufacture only garments.

16. Gradually, apparel manufacturers from South and East Asia have become interested in Ethiopia as a possible outsourcing destination. Ethiopia attracted foreign investments of US\$1.2 billion in the first six months of the 2016-2017 fiscal year, especially since the Ethiopian government set export-oriented apparel production as a priority in the national development agenda. Based on Ethiopian country data, in the last 5 to 6 years, the textile, and apparel industry have grown at an average of 51% and more than 65 international textile investment projects have been licensed for foreign investors, during this period. The growth in the textile industry is directly linked to the Government's strong commitment to set up an industrial development strategy. Furthermore, the government is building industrial parks in order to ease logistics constraints for export-oriented apparel producers. Currently, there are more than 10 industrial parks (IPs) most of them dedicated to textile and garment manufacturing. Bole Lemi 1, built in 2014, hosts foreign-owned firms in both apparel and footwear manufacturing, such as Arvind (India), JayJay Textiles (India) or Shin (South Korea). Another example is Hawassa Industrial Park (HIP), inaugurated in 2017, which is estimated to bring USD 1bn in export earnings, almost 10 times the current figure for the entire textile industry, as well as employing 60,000 people when operating at full capacity. The park has attracted the first-wave of world-leading apparel producers in Ethiopia. The anchor investor for this park is Philip Van-Heusen (PVH), one of the world's largest apparel companies. Furthermore, cheap labor is the most important explanation for foreign direct investments inflows in the TG industry. According to foreign investors, no other country could offer lower wages, ranging between USD 30 and USD 45 per month at the operator level in assembly operations (the lowest skill segment). Other aspects that attract foreign investors are cheap electricity prices, government support, and low risk of investing. The global brands to which the Ethiopian cotton and textile market is linked are: PVH, H&M, Asda, Primark, Van Heusen, Tchibo, Tesco, Marks & Spencer, VF Corporation, Inditex, Itochu, etc.

17. Although in terms of business, the textile/garment manufacturing industry is a great contributor to economic prosperity and poverty reduction, it is also associated with some problems. One problem derived from the textile products is generation of huge volume of solid waste in the process of garment production. Due to the absence of national policy and strategy for managing industrial solid wastes, there is no integrated system of recording data, treating and disposing mechanism for solid wastes from the apparel industries. A survey from one of the industrial parks (Bole Lemi I Industrial Park), with only 156

hectares and 20 manufacturing sheds shows that about 1,500 tons of fabric cut-off annually. There are no more data on the total wastes and off-cuts generated by the TG sector. Based on the wastes generated by South Africa TG sector, which is around 81,096 tons/yr, the TG wastes generated in Ethiopia can be conservatively estimated to be around 100,000 tons/yr due to Ethiopia having 10 industrial parks mainly working in textile and garment manufacturing. The most common method of solid waste disposal in the country, as it is the case in most African countries is open/uncontrolled land fill and incineration. 21.5% of wastes are burned or incinerated in South Africa, which is expected to be higher in Ethiopia, conservatively around 25%. These figures are estimated based on the little data available and will be elaborated during the PPG phase.

18. Wastes are in most cases reused by Small and micro Enterprises (SMEs) for different purposes like mattresses, floor brushing (cleaning) materials, purses, wallets, belts, open shoes, etc. without or with minor processing. There are about 15 of such enterprises engaged in reuse of different wastes (garment offcuts (scraps), cartoon, polybag, mixed offcuts, wood scrap, cones). These enterprises are those which are linked to Bole Lemi I Industry Park that only operates in Addis Ababa. Because they collect the wastes randomly (not in a regular and permanent basis), the volume of their operations is not predictable at the moment. The largest textile waste recycling company, Etur textile plc recycles 1,200 tons of textile waste (cut-off) annually. The same is true with all other industries/industry parks that are located outside Addis and all companies especially in the industrial parks supply the waste to recycling enterprises. It is not yet identified what the SMEs do with this waste and need be investigated further if it is recycled, transferred to other firms or disposed in such a way that it doesn't cause any harm to the surrounding environment. However, the existing disposal practices are very poor and the wastes are fully or partly reused by SMEs without further value addition due to the absence of modern and integrated solid waste management system of recycling these wastes in the country.

19. Regarding the chemical used in the TG sector, the POPs inventories carried out for the NIP Update found information for Endosulfan (a pesticide used for cotton pest prevention and control) and for PFOS. Ethiopia has never undertaken the inventory of PFOS. The amounts of PFOS in all use categories were processed through statistics on manufacture, export and import volumes from a national trade bureau over a 14-year period. The estimation of annual PFOS consumption included commercial categories, such as textile, carpets, hydraulic fluids, fire extinguish foams, etc. The total amount was estimated at 3.1 Tons/year as higher range value for a conservative approach. With regard to identification of Persistent Organic Pollutants (POPs) chemicals along the value chain, this task requires monitoring and tracking of all kinds of chemicals used along both value chains. Basically, due to the long value chain and many kinds of chemicals used in the different processes of the sectors, it is more likely that some precursor chemicals for POPs (dioxins and Furans) can be found but needs thorough investigation of the kinds of chemicals being used in the whole value chain.

20. Under the GEF/UNIDO regional project "Capacity strengthening and technical assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African LDCs of SADC and COMESA sub regions", the Kombolcha Textile Share Company was selected to host a pilot demonstration activity on textile dyeing and finishing. The BAT/BEP pilot demonstration project aimed at the identification of chemicals that are toxic and potential sources of chloranil (a dioxin/furan precursor). The report identified 3 sources of PCDD/Fs in the textile industries, namely the pesticides in the raw materials, contaminated dyestuffs, and the effluent water. Emphasis is given to dyeing and finishing processes because many chemicals are applied here and are supposed to release unintentionally produced dioxins and furans. This demonstration had been completion with POPs chemicals phased out from the facility. The achievement of the BAT/BEP project will be consolidated by introducing resource efficient and cleaner production (RECP) and waste minimization techniques; and circular economy concept through the recycling and reuse of textile discards and wastes.

21. According to the updated NIP, Ethiopia is setting as a priority the proper management and disposal of articles and wastes containing PFOS and reducing the risk from the importation of articles and products containing PFOS.

COVID 19

22. The economic impact of the COVID-19 pandemic is staggering. The COVID-19 pandemic is estimated to reduce GDP by 11.1 percent in the fiscal year 2020/21. The government projects a growth figure of 9 percent for the fiscal year 2019/20 or a GDP of Birr 2,043.411 billion. The effect of the 11 percent decline in the growth rate is equivalent to reduce such GDP level by 227 billion Birr. In the event of the best-case scenario, the effect being limited just to the first quarter of the new fiscal year, and hence a 5.6 percent decline in GDP, this will be Birr 114 billion for this amount of GDP.

23. According to some estimate the Textile and Garment sector has lost close to \$40 million. Production cut, cancellation of orders, restriction on movements, decreased supply of raw materials and decrease in sales are the major challenges in the business value chains. Responses that are delayed or many lack comprehensive look of the situation may be the other categories of challenges identified. These may have to do with gaps in better understanding of the situation and detail analysis of factors that affect the sectors in the side of the government bodies that regulate the sector. Cash flow, the price and availability of imported raw materials, the export market that may not open soon and influence of imported goods are identified as other areas of challenges in the time to come.

24. As a result of the above potential challenges to come businesses especially manufactures that have large number of staff may find it difficult to keep all their staff on payroll.

25. Since the advent of the COVID 19 pandemic the Government of Ethiopia (GOE) has taken aggressive measures primarily in the public health and economic fronts. A range of fiscal, monetary, and sector-specific policy measures have been put into effect. Some of the earlier economic measures taken by the GOE include a 5 billion birr additional budget allocated for emergency expenditure, removal of import taxes and priority foreign currency access to importers and producers of COVID 19 related items, expedited VAT refunds for businesses, 21 billion birr injection to banks to curb their liquidity shortages, increasing mobile money transfer limits, relaxing the NBE's Non Performing Loan directive for highly affected sectors for such sectors as horticulture, hotels and tourism and removal of minimum price for exported flowers.

26. In addition to the above economic measures, the GOE cognizant of the increasing rate of infection has also introduced additional measures such as; remit tax debts for more than 3099 taxpayers until the fiscal year 2015 which includes principal tax, interest and penalties, waiver of 30% rental tax for education institutions and micro and small enterprises [by regional governments and city administrations], waiver of 4 months employment tax for workers required to stay home with their salaries to which the government shares 50% of employers wage costs for two months, extension of VAT and turnover tax declaration periods, raising the tax deduction rate for COVID related charitable donations from 10% to 20%, allowing loss incurred in 2012E.C. to be carry forward for the next year even if businesses has already carried forwarded for previous 2 losses, pension contribution of private organizations for 3 months has been deferred until July 2020, loan/credit support for SME and extended support for manufacturers that export their products. While the government has acted quite swiftly and decisively with a range of public health measures, interventions on the economic policy front are still in their early stages—especially if seen against the aggressive actions being taken in other developed and developing countries.

27. Ethiopian Chamber of Commerce and Sectoral Association (ECCSA) as an apex organ of the business community in the country had been vigilantly following the situation in the country. Among the measures it had taken include working on raising awareness and communication with key actors to look for solution for the challenges that are affecting the business community in the country. Internally it has been working to organizing its working platform and modalities using Remote Working Facilities so that it can ensure its leadership role in this hard time. The Association has also produced and distributed a Guideline for Small and Medium Enterprises (SMEs) to help them manage their business during the pandemic.

28. Although the existing crisis has imposed some challenges, it has also provided opportunities to identify the shortcomings and vulnerabilities of the TG sector and to invest in necessary measures to address them. The spread of COVID-19 has disrupted the global supply chains at different levels which has necessitated the need to explore alternative supply sources and identify new markets for product and services. TG sector players are now looking for sources of supply of input materials that are reliable and less vulnerable to global shocks. Hence, to shorten the supply time, the TG sector will now have to identify

local suppliers and alternative input materials like natural dyes and natural fibres that would be much easier to source. Furthermore, local TG suppliers are looking for opportunities to be part of the global supply chain, which will enable them to earn foreign exchange to cushion the impact of the pandemic on the value of the local currency. Therefore, there is a need for application of innovative solutions at each of the levels to tackle the shortage and reduce TG wastes. There is an opportunity to innovate solutions for sustainable and resilient supply chains while reducing TG waste. These solutions could be useful to prepare the country in the face of such pandemics. Policymakers and entrepreneurs should consider the current crisis as an opportunity to solve the issue of TG wastes by not treating it just as an environmental problem but as an economic prospect for which new sustainable business models based on the principle of circular economy is required.

#### Baseline projects

29. The following list comprises the most important national and international projects on circular economy, BAT/BEP, POPs, waste, hazardous waste including those implemented or planned in the TG sector by the Government of Ethiopia:

- The National Implementation Plan (NIP) of the Stockholm Convention on Persistent Organic Pollutants (POPs), 2006, which defines activities to be undertaken for implementing the obligations under the Stockholm Convention. The submission of the document to the Secretariat of the SC was done in 2006
- The National Implementation Plan (NIP) Update of the Stockholm Convention on Persistent Organic Pollutants (POPs), which updates the activities of the initial NIP and define activities for New POPs was not submitted yet.
- Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African LDCs of the COMESA and SADC sub-regions, implemented by UNIDO and UNEP, funded by GEF (GEF ID 3942), closed in 2016
- Investment Promotion on Environmentally sound Management of Electrical and Electronic Waste: Up-Scale and Promotion of Activities and Initiatives on Environmentally Sound Management of Electrical and Electronic Waste in Ethiopia, implemented by UNIDO, funded by GEF (GEF ID 5040), closed in 2015
- Supporting the Implementation of the Global Monitoring Plan of POPs in Eastern and Southern African Countries, implemented by UNEP, funded by GEF (GEF ID 5040), closed in 2018
- Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in the Africa Region, implemented by UNEP, funded by GEF (GEF ID 3673), approved in 2014
- Capacity-building and job creation for youth and women in textile sector in migration prone areas of Ethiopia, implemented by UNIDO, funded by EURO Trust Funds, approved in 2017
- Sustainable textile investment and operation in Ethiopia, Implemented by UNIDO and GIZ, funded by China: Ministry of Commerce (MofCom) and Germany: Federal Ministry for Economic Cooperation and Development (BMZ).
- PCP – Programme for Country Partnership in Ethiopia, UNIDO, 2014
- Reducing uses and releases of chemicals of concern, including POPs, in the textiles sector, UNEP (GEF ID 10523)
- Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Lesotho, Madagascar and South Africa, UNIDO (GEF ID 10543)

30. The project will establish regional cooperation and network for information exchange and experience sharing as well as regional and inter-regional knowledge management. Specifically the project will be implemented with close linkage with the ongoing UNIDO regional textile project in Lesotho, Madagascar and South Africa (GEF ID 10543) which is being implemented in parallel and linkage with UNEP Asia regional textile project (GEF ID 10523).

31. This project will build on the activities of the Sustainable textile investment and operation in Ethiopia project that will result in upgrading the capacity and competence of the national regulatory body through training and improved ICT applications for performance monitoring and to create easy information access platform for the international buyers and manufacturers.

**c. The proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components**

32. This project was originally conceived under the regional circular economy project (Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Lesotho, Madagascar and South Africa), which its PPG phase is under implantation. However due to the fact that the GEF operational focal point was not yet appointed, the letter of endorsement couldn't be obtained for Ethiopia. Hence, Ethiopia was removed from the regional project, which now has Lesotho, Madagascar and South Africa. Considering the economic and export potentials of the TG sector in Ethiopia, the strong commitment of the government and the private sector and the GEB that can be derived from sustainable management of the TG supply chains, this project has to be revisited and prepared for GEF approval.

33. The alternative scenario proposed in this full-sized project will address the above mentioned barriers by strengthening the sound management of industrial chemicals and their wastes through better control, and reduction and/or elimination in Ethiopia to promote Circular economy in the textile garment sector. Furthermore, the use of POPs will be prevented by promoting the environmentally sound management (ESM) of POPs and waste through the introduction of BAT/BEP measures to protect human health and the environment.

34. The project will promote circular economy in the textile and garment sector through the following among others:

- Product and process system design in the entire value chain for durability, multipurpose application, reusability, recyclability, maintainability and repairability; i.e. adoption of a life cycle thinking (cradle to cradle) approach.
- Adoption of low carbon and cleaner technologies through the application of resource efficient and cleaner production (RECP) tools and techniques
- Productivity improvement and waste minimization through process optimization; equipment modification and acquisition of cleaner technologies;
- Non-hazardous manufacturing and production operations for POPs and other toxic chemicals pollution prevention and control through the implementation of BAT/BEP in the textile industries and garment making industries.
- Waste recovery, reuse and recycling enhancement and improvement through avoidance of hazardous chemicals and waste in the textile and garment production process;
- Adoption of "zero waste to landfill" business strategy in the TG value chain through waste minimization of process wastes, recycling and reuse of end-of pipe wastes with the establishment of green industries that will convert textile and garment wastes and offcuts into cotton fibre for reuse as input materials in the textile fabric making industries and downstream in the garment making industries.
- Support of the regenerative of economy through substitution of recycled natural cotton and synthetic fibre for raw cotton fibre as input resources in the textile manufacturing process; and use of renewable energy, biodegradable inputs and bio-chemicals.

35. The TG sector will be strengthened and broadened through the development of waste recovery and recycling segment of the TG value chain that will create new green industries and related services. The project will undertake a techno-economic assessment of the circularity of the TG sector and development of viable business models and financial mechanisms for the economic viability and financial profitability of the recycling chains. The lessons learnt and experiences gained in the pilot demonstration of the circular economy concept in the TG sector will guide policy reforms and regulatory framework that will be required to promote circular economy in the TG value chain. These will be in form of green products design and standards, tools and methodologies for chemicals tracking; compliance monitoring and enforcement of regulations and standards; development of guidelines for an integrated textile and garment value chain; products traceability and tracking. The outcomes and results of the pilot demonstration of textile/garment wastes/off-cuts will have implications for the review of existing municipal solid waste management practices; policies related to establishment of industrial clusters and parks; and trans-boundary movement of wastes and used clothes and clothing. The techno-economic assessment of the circularity of the TG sector will also identify investment capital and operating cost regimes that would enable and sustain the implementation of the circular economy concept. In addition the required fiscal and policy incentives, investment financing and promotion guidelines that would support its sustainability will have to be prepared, enacted and implemented. In order to replicate and upscale the activities of the project the requirements for regional and global networking and partnership will need to be identified and the requisite conditions for enabling and implementing it will be addressed. The knowledge management component will establish a platform that will provide the opportunity for interactive information exchange and experience sharing and facilitate the dissemination of the lessons learnt and experiences gained from the pilot demonstration with the active involvement and participation of the international brands and other global players like the Ellen MacArthur Foundation and the Zero Discharge of Hazardous Chemicals (ZDHC).

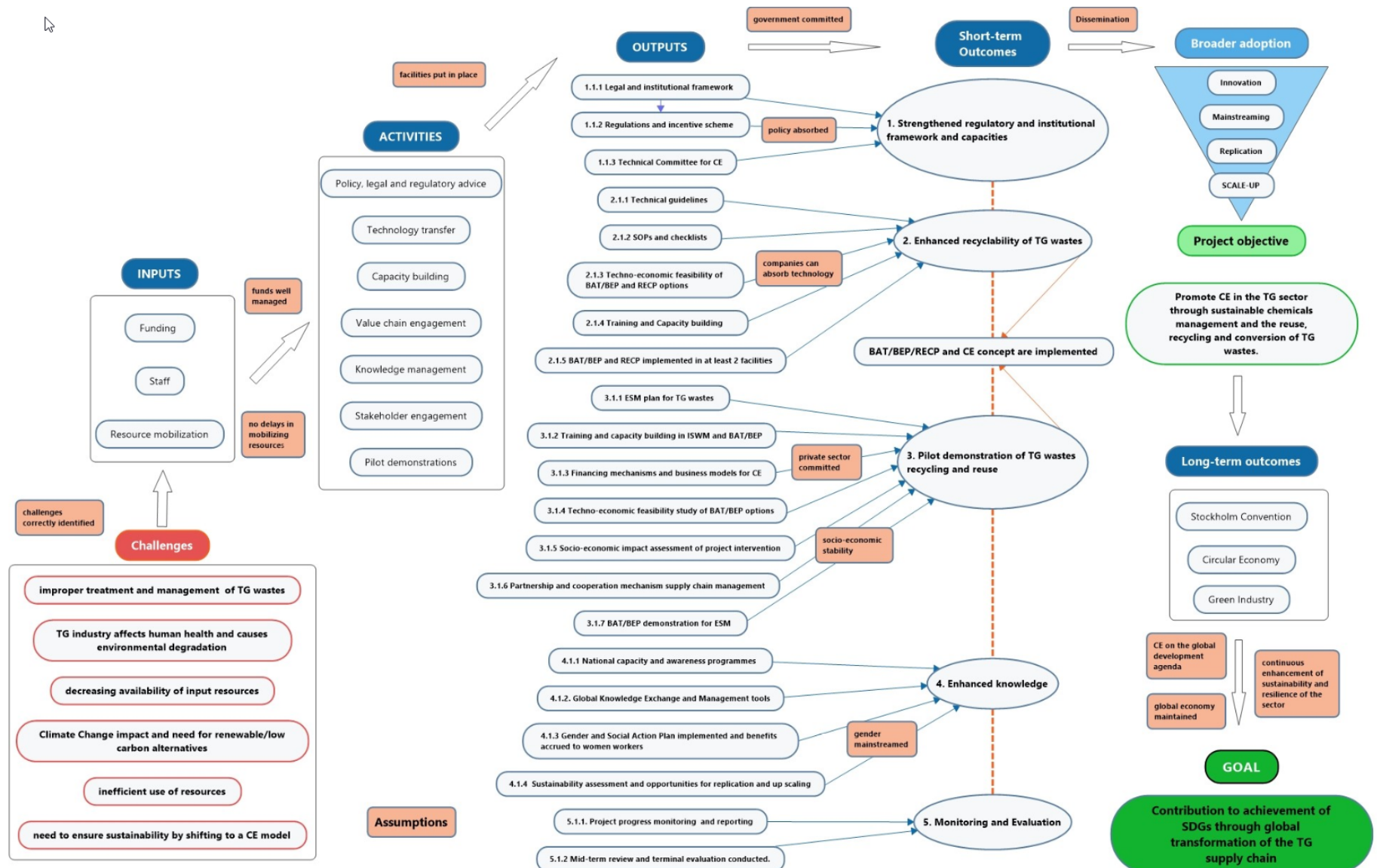
36. The pre-selection of sites for the pilot demonstration was based on the following criteria: textile and garment industries at locations with high wastes generation; industrial locations which pose high environmental pollution challenges; national government priorities and preferences to jump start the implementation of the circular economy concept; and industrial parks where ancillary support facilities for waste collection, separation; and transfer and transportation can be easily provided and/or upgraded. In addition, through the adoption of the value chain approach, industrial locations and sites where textile manufacturing industries and textile production share contiguous boundaries was also given consideration for ease of logistics.

37. The industries were identified based on size, production capacity and processes, connection to international fashion brands; willingness to participate in the project; readiness to implement recommendations for process improvement and readiness to provide requisite co-financing to complement GEF resources. Industrial facilities that large production capacities and offer opportunities and operational flexibility for process modifications; equipment retrofitting and upgrade; and ability and capacity to acquire and absorb environmentally sound technologies (ESTs) were given preference. Industries that have combined textile and garment production facilities were also identified as they offer the opportunity for an integrated business model development.

38. The project will at least have 2 demonstration pilots in Ethiopia. The demonstration pilots will target three stages: textile manufacturing, garment making and recycling/reuse.

39. The TG industry is becoming increasingly relevant for the economy of Ethiopia. Extrapolating the current trend leads to a growing environmental pollution but it can also bring new opportunities. Currently, a multitude of initiatives are arising at governmental, private, local and international levels in order to make a contribution towards a sustainable and competitive industry. This intervention aims at bringing about convergence, coordination and broader adoption of these initiatives in order to generate a durable change in the TG sector. If all the assumptions made are in place, this transformational change is expected to occur at all levels: social, economic, environmental and governmental, as shown in the theory of change in Annex D.





40. The project will be based on developing alternative scenarios that focus on sustainable recycling and waste treatment practices, taking into account pandemic risks arising from the COVID-19 outbreaks, to achieve the Global environmental benefits envisioned in this PIF.

41. The project will build strong partnerships with various relevant stakeholders to address such root causes under the COVID-19 outbreak. The project has enlisted the involvement and collaboration of partners in the acknowledgement management and global value chains such as ZDHC, Ellen MacArthur Foundation; and the international fashion brands, which will bring their expertise, knowledge and competencies to ensure that the requisite resilience is built into the project to be able to achieve the envisioned global environment benefits. All these factors will be considered and necessary adaptation and mitigation strategies will be undertaken during the PPG phase.

42. Considering this purpose, the project will consist of five different components, which are described as follows:

### ***Component 1: Strengthening of regulatory and institutional capacities for adoption and promotion of Circular Economy (CE) in the textile and garment sector***

43. The main goal of Component 1 is the creation of the necessary institutional frameworks, effective policy control and incentives and technical resources to advance the Circular Economy agenda in the TG sector along the whole value-chain by promoting BAT/ BEP/ RECP for prevention/ reduction of POPs and other hazardous chemicals.

#### ***Output 1.1.1 Legal and institutional framework for life cycle management of the TG supply/value chains.***

44. This first group of activities will consist of gap analysis on legal mandates, institutional capacities and review of the relevant existing laws and regulations, leading to proposing a revised legal framework to strengthen the legal and institutional framework to promote circular economy in the TG sector. The technical infrastructure for implementation of BAT/ BEP on POPs, hazardous chemicals and textile waste management as well as RECP options (energy efficiency, renewable) will be promoted and strengthened.

45. Once the appropriate hazardous chemicals including POPs and New POPs specific legislation has been incorporated in the Ministry of Environment of Ethiopia, tasks will revolve around building capacity to enforce regulations. An implementation of a National Centre for segregation and storage of POPs will be also assessed in accordance with BAT/ BEP guidelines to meet SC/ BC and other relevant criteria. The Environment, Forest and Climate Change Commission will work with the Ministries of Industry and Ministries of Finance (National Revenue Authority, in particular) among others, to commit in-kind and in-cash contributions towards enforcement of these regulations.

#### ***Output 1.1.2 Regulation and incentive scheme for promotion and sustainability of circular economy in the TG sector.***

46. Based on the gap analysis evaluation report and to strengthening the legislative network, targets and/or incentives will be set to promote the practices and sustainability of circular economy in the sector. For example, incentives for collection and recycling of textile waste while banning its incineration.

#### ***Output 1.1.3 Technical Committee for Circular Economy in the TG sector***

47. A Multi-sectoral Technical Committee for Circular Economy in the TG sector will be legally established and made operational. The strengthening of capacity to promote Circular Economy in the TG Sector is multifaceted, involving establishment of a coordination mechanism and targeted training. Coordination with other POPs projects in the African region the Africa ChemObs project will also be ensured and will contribute to overall POPs management and monitoring in the country. The project "Integrated health and environment observatories promoting legal and institutional strengthening for the sound management of chemicals in Africa – African ChemObs" aims to enable countries to meet their reporting obligations under the Basel, Rotterdam and Stockholm Conventions, promote evidence based policy making as well as increase investment on chemical and waste infrastructure. The committee will include, relevant ministries, EDITI, ETGAMA, private sector companies and representatives of international brands/partners.

### ***Component 2: Recyclability of textile and garment wastes is enhanced through POPs-free textile manufacturing process and the implementation of BAT/BEP and RECP investments***

48. The main goal of Component 2 is to implement BAT/ BEP/ RECP methodology and Circular Economy concepts for the prevention and reduction of POPs and other hazardous chemicals and materials use in textile and garment production facilities as well as its substitution by Environmentally Sound Alternatives (ESA) including non-chemical alternatives, in line with the requirements of the SC and National priorities, while enhancing the recyclability and reuse of textile and garments wastes through POPs-free textiles and garment manufacturing. The component will also introduce RECP options such as wastewater minimization, pollution control and management, energy efficiency and renewable energy implementation. This component aims to achieve the production of fabrics devoid of hazardous chemical and material.

49. The demonstration under this component (2.1.5) will ensure that hazardous chemical and substances are removed from the textile fabrics, ensuring that the fabric input to the garment and apparel production (in component 3) are devoid of restricted substances. It will also enhance the availability of recyclable materials and sustainability of the investment in the pilot demonstration of recycle and reuse of TG wastes (output 3.1.7).

50. In the textile manufacturing process-spinning, fabric production and dyeing and finishing; process improvement strategy will deploy UNIDO/UNEP resource efficient and cleaner production (RECP) techniques to improve production efficiency, reduce resource intensity; minimize waste and prevent pollution. The Stockholm Convention on persistent organic pollutants has developed the Best available techniques and best environmental practices (BAT/BEP) to address emission and pollution from POPs chemicals in some industries including the textile sector. It will be implemented to reduce the presence of hazardous chemical and substances in the textile fabric and ultimately in the apparel and garment products by preventing the use and formation of POPs chemicals in the dyeing and finishing sections through the avoidance of chemicals containing elemental chlorine and other POPs precursors as articulated in the BAT/BEP Guidelines of the Stockholm Convention. This BAT/BEP will be applied to the production of any fabric types be it natural or synthetic material. These methodologies have been demonstrated by UNIDO and UNEP in many industrial sectors including textile industries. This will be implemented and will contribute to low carbon concept and “zero to landfill” approach of circular economy.

51. In cooperation with the international brands and ZDHC, some environmental footprint performance improvement programmers such as the zero discharge of hazardous wastes, restricted substances list management, better cotton initiative, sustainable apparel coalition etc. will be implemented. The adoption of international standards and implementation of certification schemes by the participating industries will be supported by the project.

*Output 2.1.1. Technical guidelines for environmental sound management of POPs chemicals and wastes*

52. This component will provide technical guidance to participating TG production facilities including the introduction of the Circular Economy concept, RECP for resource conservation and waste minimization and BAT/BEP for prevention/reduction of POPs and improvement of process efficiency along the whole lifecycle of the textile / garment sector in selected facilities. The technical guidelines which will be developed for the textile manufacturing industry, will also provide information on the chemicals and waste material flows classification tracking and reporting. It will also develop guidelines for material and waste inventory audits.

*Output 2.1.2 Standard operating procedures (SOPs) and checklists POPs pollution prevention and control*

53. Also, the component will provide technical guidance on and standard operating procedures (SOPs) for BAT/BEP, development of investment prioritization criteria, as well as construction supervision, testing and full operation of BAT and BEP, ISWM and RECP interventions.

*Output 2.1.3 Techno-economic feasibility of BAT/BEP and RECP options*

54. Techno-economic feasibility of BAT/BEP for POPs alternatives (also non-chemical alternatives) including financing mechanisms and business models will be carried out.

*Output 2.1.4 Training and Capacity building in BAT/BEP, RECP and Circular Economy.*

55. The component will provide a training and Capacity building of relevant stakeholders including industries' personnel in BAT/BEP, RECP and Circular Economy.

*Output 2.1.5 BAT/BEP and RECP implemented in at least two facilities.*

56. The investment intervention of this component will demonstrate BAT/ BEP/ RECP options involving equipment retrofitting, technology/equipment transfer, process modifications; installation and commissioning of new equipment and related capacity building and training. The purpose of this intervention is to ensure that textile/garment facilities prevent and reduce the import and use of POPs, New POPs and other hazardous chemicals while textile and garment and TG wastes do not contain POPs and other hazardous chemicals; thereby making them highly recyclable and more available for recycling operations by the implementation of specific private sector investments.

57. The outcome of this component will be linked to the demonstration of the economic feasibility of the identified BAT/ BEP/ RECP options, even those under development, in the TG sector. Therefore, besides the BAT/ BEP/ RECP implemented in the selected companies, these co-financed investments will encourage wider circular economy investments in the whole TG sector in order to be in line with both national regulations and the market demand.

***Component 3: Introduction of Circular Economy concept for UPOPs emission reductions through ESM of textile and garment wastes and pilot demonstration of textiles/garment wastes recycling and reuse.***

58. The main goal of component 3 is to promote the implementation of Pilot demonstration for the reuse and recycling of textile and garment wastes through the introduction of circular economy concepts, BAT and BEP in existing and future reuse-recycling facilities with the final objective of reusing and recycling 100% of wastes in the future in an environmentally sound manner.

59. In the garment making production process; BAT/BEP will be implemented to avoid the use of hazardous chemicals in garment making and finishing. This will entail the introduction of eco-design techniques to minimize the generation of wastes; off-specs and off-cuts in the production process. The international brands such Nike, Puma, ASOS, Adidas, etc. are already implementing some of these activities under their corporate social responsibility (CSR) programmers individually and in cooperation with other players in their supply chains. This cooperation will be strengthened and coordinated by the project especially for garment makers that are suppliers to more than one global brand.

60. The project will promote the circularity of textile and garment value chain through adoption of sustainable wastes management plans and strategy. The project will identify opportunities for forward integration by the textile and garment sector through the reprocessing and recycling of TG wastes into the textile manufacturing process. For contaminated wastes the project will support the disposal in an environmentally sound manner through the application of appropriate BAT/BEP.

***Output 3.1.1 Environmentally sound management (ESM) plan for textile/garment wastes.***

61. The technical assistance task of this component will provide technical guidance to key stakeholders including the introduction of the Circular Economy concept by developing an environmentally sound management (ESM) plan for textile/garment wastes. This will entail the development of planning tools (waste management modeling; database management; monitoring and evaluation tools; chemical tracking and labeling; emission estimation etc.); waste sorting and segregation; waste characterization; assessment and evaluation of appropriate waste treatment technologies; life cycle assessment; implementation mechanism (public-private partnership, etc.); and application of smart system (data acquisition and storage, data communication, remote sensing and global positioning and remote sensing). ESM plan will develop materials flow modelling and analysis; and guidelines for selection on the most cost-effective and eco-efficient technologies for the management of textile and garment wastes that will support the zero to landfill strategy of circular economy. The ESM plan will include integrated solid waste management framework: stakeholders, systems engineering, database management and integrated solid waste management. The waste conversion process options mainstreaming circular economy techniques and sustainable business models will be integrated.

62. Prior to incorporation of ESM, an assessment/ situation audit of the current waste management practices will be undertaken and benchmark against international best practices to identify and analyze the capacity gaps. The outcome of the capacity gap analysis will provide the framework and strategy for the development of the ESM. The assessment/ situation audit/ capacity gap analysis of the current waste management practices will be undertaken during the PPG phase.

*Output 3.1.2 Training and capacity building in ISWM and BAT/BEP for ESM of textile and garment wastes.*

63. This component will develop programmes for training and building capacity of key stakeholders (Output 3.1.2) on integrated solid waste management (ISWM) and BAT/BEP for ESM of textile and garment wastes/discards for uPOPs/ GHGs prevention/reduction and degraded land reduction/mitigation. ISWM will develop an approach for the sustainable management of solid wastes, which covers all aspects of generation, segregation, transfer, sorting, treatment, recovery, reuse, recycling and disposal in an integrated manner with emphasis on maximizing resource use efficiency. Training manuals and course modules on eco-design and waste minimization, waste management and valorization; circular economy principles and business models; Green Chemistry sustainable management etc. will be developed across the broad-spectrum of stakeholders.

*Output 3.1.3 Financing mechanisms and business models for circular economy.*

64. Develop business models and financing mechanisms for sustainability of TG wastes recycling and reuse operations; entrepreneurship development and business linkages, socio-economic impact assessment of project intervention on the TG sector and value addition to national economy.

*Output 3.1.4 Techno-economic feasibility study of BAT/BEP options for recycling/reuse of textile and garment wastes.*

65. Techno-economic feasibility study of BAT/ BEP options for recycling/reuse of textile and garment wastes will be done in order to see the potential of application of BAT/BEP technologies that would lead to reduction of environmental impact. The assessment will also review the main aspect that needs i.e. administrative, managerial and technical further improvements.

*Output 3.1.5 Socio-economic impact assessment of project intervention*

66. Socio-economic impact assessment of project intervention on the TG sector and value addition to national economy will be done. The assessment will include the social impacts (e.g. health), economic impacts (can include effects on employment) and environmental impacts.

*Output 3.1.6 Partnership and cooperation mechanism for supply chain management.*

67. The project will establish partnership and cooperation with global fashion brands, their suppliers and global textile organizations. Although currently the cooperation between many of the textile and garment makers and the international brands focuses mainly on meeting contractual obligations and commitments. There are a lot of opportunities for cooperation and partnership between the textile and garment producers and the international fashions in jointly implementing mutually beneficial corporate social responsibility programmers. The project will facilitate this cooperation by supporting the textile garment producers to sign in to relevant programmers and encouraging the fashion brands to provide necessary support the TG producers.

*Output 3.1.7 BAT/BEP demonstration for ESM of POPs chemicals and textile/garment wastes*

68. This output will build on the achievement and outcomes of the pilot demonstration in output 2.1.5, which aim at ensuring of the recyclability of TG wastes and discards. The investment intervention of this component will demonstrate BAT/ BEP options involving technology/equipment transfer, equipment retrofitting, process modifications, development of operation manuals, installation/commissioning of new equipment and related training and building to demonstrate the reuse, recycling and ESM of textile and garment waste in selected TG and recycling facilities, by assuring private sector investment implemented for the ESM of TG waste in selected TG facilities and private sector investment on reuse/ recycling facilities.

69. Natural and synthetic fabrics (cotton, polyester, acrylics, etc.) industrial wastes are the main targets for recycling and reuse under this output. Currently all the identified industries are located inside industrial parks and the wastes are being collected and segregated. Through the gap analysis, the project will identify ways of improving waste collections and handling techniques that will ensure linkage between the textile industry and garment/apparel production facilities. Through ISWM, the management of the wastes from the industries and municipalities, especially used clothing from households, will be closely linked and integrated to enhance the economic viability of the recycling operations.

#### ***Component 4: Knowledge management for scaling up.***

70. This component aims to ensure that project results are sustained and scaled at national and global levels. This Component will be shared with the UNIDO TG regional project and UNEP project in Asia, all projects following the same basic structure, although specific activities will be developed as needed in each region/country.

71. The outcome will be achieved through sharing technical successes and lessons to the wider textile sector via national capacity and awareness raising, including ensuring access to information for regulators to meet international reporting obligations. At a global level, information will be shared between the UNEP and UNIDO projects, via SAICM and international networks, and with global supply chains, to ensure appropriate incentives for textiles facilities are in place. Gender and social impacts are particularly important in the sector and will be addressed in Output 4.1.3.

##### ***Output 4.1.1 National capacity and awareness programmers increase ability of textile sector and policy makers to manage and control POPs and Cocs***

72. During the PPG a review of the internal processes and mechanisms for reporting at the national level will be conducted, as well as Stockholm Convention reporting data gaps related to textile sector, and will guide the use of project funds.

73. Activities may include:

- National workshops and consultations with sector groups and regulators; publication of annual reports and inventories; and coordination with customs, statistics and other potential sources of relevant data, building on national steering committees developed in particular in the context of the Stockholm Convention as well as existing projects under the Special Programme
- Development of national databases and data collection systems and mandates including an open-access platform for internal users (chemical suppliers, Tier 2 and 3 users, and Tier 1 clients and brands) and the wider public, including regulators and project partners. Systems will include incentives for users to update them (e.g. space for advertising themselves or a chat function to connect on possible new opportunities). Different approaches will be considered including mobile phone apps, bower-based interfaces, and PRTR-model data collection and reporting tools. The tools and processes will be linked to existing sustainability reporting and monitoring, including any certification or standards partners already have in place.
- Development of training modules and teaching resources on CE and ESM of chemicals and POPs-contaminated wastes, and training of users (governments and private sector actors) in the use and interpretation of data from reporting tools. The project will benefit from the training programmes and workshops developed and run by Ellen MacArthur Foundation and ZDHC training programmes. These resources/programmes/workshops can also be used in existing school curricula, university research programmes and specialized professional development training. The Ethiopian Institute of Textile and Fashion Technology provides the institutional framework for the delivery of these services and programmes.
- Multimedia sensitization campaign targeting multiple/various demographics (decision makers, industry, Ministries, local governments, community leaders, recycling companies, informal sectors, women and youth group associations, NGOs, academies, media, etc.).

##### ***Output 4.1.2. Global Knowledge Exchange and Management tools accessed by users globally***

74. This output will be delivered jointly with UNIDO regional project in Africa (GEF ID 10543) and UNEP (GEF ID 10523), to ensure all tools relevant to a sector can be found in a common space and build on each other.

75. Activities may include.

- Development of a dedicated section for textiles in the SAICM Knowledge Management platform being developed under a related GEF Full Size Project (GEF ID 9771), and dissemination of project results and tools via global networks including UNIDO and UNEP websites, the UN Sustainable Fashion Alliance and government or regulatory networks and SWITCH Med and SWITCH Asia;
- Collection of relevant tools, guidance and best practices, from the project, the project implemented by UNEP, government and private sector initiatives;
- Engagement of global supply chain actors including brands, retailers (including online) to overcome communication barriers between a highly globalized industry, and ensuring that the communicating partners understand each other and that the right information is coming from, arriving to and understood by the correct persons
- Development and roll-out of a public information strategy with due consideration of the UN Environment Programme's "*Guidelines for providing product sustainability information*" to the textile sector with specific case studies drawn from the project countries.
- One of two global Conferences in coordination with the UNEP Asia project (i.e. UNIDO in Africa, UNEP in Asia) bringing together representatives of both projects and common stakeholders notably from the brands and private sector partners including certification, labeling, and consumer partners.

*Output 4.1.3 Gender and Social Action Plan implemented and benefits accrued to women workers*

76. This output will build on a PPG analysis of the gender mainstreaming issues, in consultation with UNIDO gender advisors. The analysis will focus on chemical safety issues but also review wider and well-established gender issues and initiatives in the industry around workplace rights, violence and access to training and jobs. The gender activities will be integrated with the technical components, bringing a gender lens and additional budgetary resources to identify and mitigate impacts of unsound chemical management on women and marginalized groups including children or illegal labourers.

77. Activities in the project may include:

- Gender analysis as part of the facility visits to identify and describe gender differences in handling, exposure and impacts of chemical management practices;
- Training and awareness raising specifically targeting women workers, e.g. by provision of childcare to encourage participation and increasing access to training and jobs.
- Creation of safe spaces for dialogue on chemical safety, labour and women's rights in the workplace, including access to training and protective equipment and practices.
- Prioritization of women-owned or women-managed businesses for demonstration pilots and capacity building.

*Output 4.1.4 Sustainability assessment and opportunities for replication and up scaling.*

78. In addition, a project sustainability assessment and strategy will be implemented exploring and promoting opportunities for replication and up-scaling in the whole textile and garment sector in the country, as well as in the region and other key global TG regions.

### ***Outcome 5: Monitoring and evaluation.***

79. This component relates to monitoring the project impact indicators, evaluation of the achievements and taking corrective measures if needed. All of the above outcomes will be monitored and verified through the activities included in this component.

#### ***Output 5.1.1. Project progress monitoring and reporting***

80. An effective monitoring process of project impact and sustainability will be designed and implemented, including setting a periodic review process to monitor the quality and the state of progress of the project. Gender issues and environmental and social safeguards will be fully integrated in the project's activities.

#### ***Output 5.1.2 Mid-term review and terminal evaluation conducted***

81. Independent mid-term review and independent terminal evaluation are conducted in accordance with established UNIDO and GEF procedures.

### **d. Alignment with GEF focal area and/or Impact Program strategies.**

82. This project is aligned with the GEF-7 Industrial Chemicals & Waste Focal Program in the facilitation of enabling environments and strengthening of national legislation and regulatory capacity for meeting obligations, with regard to POPs. Thus, seeking to significantly reduce POPs, hazardous chemicals and waste which are: (i) used by the TG sector along its value-chain; (ii) emitted through unsound processing and (iii) environmentally unsound incineration, disposal and recycling, not implementing improved sustainable recycling initiatives along the entire value-chain of the TG sector aligned with Circular Economy principles. This project is assuring TG private sector engagement while setting up sustainable financial models to ensure project ownership, quality, tradability, sustainability, replicability and scaling up.

83. The project by addressing the GEF-7 specific area of prevention of waste/ products containing persistent organic pollutants and hazardous chemicals from entering material recovery supply chains (including textile and garment waste management with the aim of preventing TG waste from entering solid waste) demonstrating alignment with the GEF focal area of Chemicals and Wastes especially Chemicals used/emitted from/in processes and products and Chemicals and Waste at end of life. The project will also introduce and use circular economy concepts along the entire life/value-chain with strong private sector engagement at national to global scales, BAT/ BEP / RECP to minimize and ultimately eliminate releases of POPs and other hazardous chemicals which will be pilot-tested in at least six selected demonstration sites.

### **e. Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing.**

84. Ethiopia was selected based on the size of the TG sector, TG exports and environmental challenges in the African continent. North African countries were not selected due to SWITCH MED II (SMII), an existing project targeting the sector in that region funded by the EU. However, the experience and knowledge acquired during the implementation of SMII will be shared with this project.

85. The country was selected based on established UNIDO's network of contacts, knowledge of the country, available data and information, engagement of stakeholders and alignment of the project with the national development priorities. The selection of Ethiopia, which is a high volume garment exporting country, will provide very good opportunities for information sharing, knowledge management and replication and up-scaling.

86. The project will be implemented in close linkage with the regional GEF Project (GEF ID 10543), which will facilitate regional outreach and dissemination of information and building of synergies with ongoing national and regional initiatives within the African continent.



87. The project will be implemented along the entire TG value chain i.e.: textile industry, garment making and wastes recycling and reuse. This implies that the project is not addressing only the issues of POPs chemical but also wastes and create investment opportunities to promote circular economy.
88. GEF funds will help the participating country to develop capacity and create an enabling environment to promote circular economy framework that will facilitate implementation of environmentally sound management (ESM) plan, BAT/ BEP/ RECP, scaling up investment, modifying TG production and alternatives, consumer use, and TG waste management, and ultimately reduces u-POPs, greenhouse gas emissions and degraded land reduction/mitigation.
89. The project will also enable the participating country to comply with its obligations under the Stockholm, Basel, and Rotterdam Conventions, among others. The capacity of national stakeholders will be strengthened to establish TG wastes reuse and recycling approaches and TG wastes prevention and minimization, including a strengthened legal and institutional framework, technology transfer, and implementing demonstration activities for circular economy, BAT/ BEP/ RECP in TG sector.
90. The GEF funding will also be used to support national, regional, and international activities that would not occur without its involvement. For example, coordination and partnerships with private companies/facilities, National Associations, National Development Agencies and major international brands, and other key partners. In additions, experience sharing and knowledge management exchange between TG sector in Africa and Asia will be promoted.
91. The project will achieve its impact through the implementing the project activities along the TG value chain in Ethiopia demonstrating economic, environmental and social benefits achievable through better sound design, manufacture and use. The purpose of the GEF funding will be also to attract substantial co-financing provided by other stakeholders within the public and private sectors. Co-financing is essential for achieving the objectives of this project, especially partnering directly with private sector companies and associations that have expressed their interest in the project. The GEF fund will catalyze the results and achievements of private sector investments in environmental performance improvement, and provide assurances to private sector participants that investments in the ESM of TG waste in and reuse/ recycling facilities is conformity with global trends and practices.
92. The global outcomes to be achieved from this project include a strengthened institutional capability to implement a circular economy framework that facilitates sustainable wastes management leading to improved human health and environment, and reduction of uPOPs, GHGs and degraded land reduction/mitigation.
93. This project will implement pilot demonstrations across the three segments of the value chain: textile manufacturing, garment making and wastes recycling and reuse. It will also apply RECP techniques in the textile production for productivity improvement and wastes minimization; and BAT/BEP for management of POPs chemical. Eco design, wastes minimization technique and BAT/BEP will be applied in the garment making process. Opportunities will be identified for establishing of economically viable and financially profitable green investment projects from the recycling and reuse of the textile wastes.
94. As earlier stated this project will be implemented in close linkage with UNIDO regional project (GEF ID 10543) and UNEP Asia project (GEF ID 10523), it should be however noted that more resources will be required in Africa due to differences of level of development of the TG sector, the economies of the two regions and the depth of involvement of the private sector. The textile sector in Africa is not as developed as in Asia, hence the project will address the issue of capacity building, regulatory and institutional framework, appropriate technologies, evaluation and selection, awareness raising and public education will have to be addressed with greater emphasis. There is a lack of capacity in chemical tracking in Africa and the project will identify and apply the appropriate tools SAICM for the tracking and management of the chemicals in the TG sector.
95. During the development of this proposal, around 6 textile and garment factories were visited and/or consulted on the project, to seek project collaboration, partnership and sustainability through co-financing and in-kind commitments. Their contributions include but not limited to: process improvement/upgrade, house keeping, the staff time, the use of their vehicle or office spaces, etc. All companies visited were regularly investing and were planning to continuously

invest in BAT/ BEP measures in order to move ensure continued competitiveness of their operations and compliance with the environmental laws and regulations. The companies' cash contribution is only within the planned financial investment or any required actions like purchasing equipment. During the visit, they all agree to collaborate in the project.

96. The relationship between baseline projects by co-financing and GEF supporting activities is detailed in the table below.

Baseline project	Alternative scenario supported by GEF
<p>Capacity building and regulatory strengthening.</p> <p>No current international or national projects are supporting the drafting regulations for the Sound Management of Chemicals, including management of POPs.</p>	<p>Component 1.</p> <p>The project will assist on designing and implementing POPs, hazardous chemicals and waste regulations and guidelines while finalising and operationalizing regulations for ESM of POPs and New POPs, develop national guidelines for POPs, hazardous chemicals and TG waste management while training key stakeholders on design, implementation and enforcement aspects in Ethiopia. Under the project, a multisectoral Technical Committee for Circular Economy in the TG sector will be legally established and operationalized in the participating country.</p> <p>The legal and institutional framework to promote circular economy in the TG sector including technical infrastructure for implementation of BAT/ BEP on POPs, hazardous chemicals and textile waste management as well as RECP options (energy efficiency, renewable) will be promoted and strengthened.</p>
<p>BAT/ BEP in the TG sector.</p> <p>No specific promotion of Circular Economy concepts and BAT/ BEP/ RECP exists in Ethiopia in the TG and any other industrial sector.</p> <p>BAT/ BEP/ RECP might be partially and indirectly promoted</p>	<p>Component 2.</p> <p>Under the project, promotion of circular economy in the value-chain of the TG sector, demonstration (technical assistance and investments) of BAT/ BEP for ESM of POPs, hazardous chemicals and TG waste as well as RECP options in selected TG facilities and infrastructure and training and awareness of the TG facilities managers, sustainable</p>

<p>ed through the legal Environmental Impact Assessment (EIA) process in participating country to comply with local legislation, but is away from BAT/ BEP/ RECP on POPs, hazardous chemicals and waste and materials management, energy efficiency and renewable energy among other issues.</p> <p>No BAT/ BEP infrastructure on POPs and hazardous chemicals and waste management exists in the TG sector.</p>	<p>ility managers and key workers based on best international practice, will be carried out.</p>
<p>Management of textile and garment (cotton, textile, and garment off-cuts) waste.</p> <p>The TG wastes generated in Ethiopia can be conservatively estimated to be around 100,000 tons/yr due to Ethiopia having 10 industrial parks mainly working in textile and garment manufacturing. The most common method of solid waste disposal in the country, as it is the case in most African countries is open/uncontrolled land fill and incineration. 21.5% of wastes are burned or incinerated in South Africa, which is expected to be higher in Ethiopia, conservatively around 25%. These figures are estimated based on the little data available and will be elaborated during the PPG phase.</p> <p>All reuse and recycling activities are mainly promoted by the private sector, detecting little or no involvement from the public sector to promote circular economy.</p>	<p>Component 3.</p> <p>The project will provide technical assistance, training and investment to develop textile and garment (cotton, textile/garment off-cuts) waste ESM plan and infrastructure, using a PPP model while following BAT/ BEP in the participating country. The component target is to achieve the reuse and recycling of cotton, textile and garment waste per year, stopping its incineration and burning, while minimizing as much as possible the TG waste sent to landfills, reducing/ avoiding associated health and environmental problems. The final project aim is to reuse and recycle 100% of TG wastes in the future in the participating country.</p> <p>The project will also conduct in-depth assessment of two (2) possible TG waste reuse-recycling companies/ facilities for scaling up in Ethiopia, using BAT BEP including training of key stakeholders.</p> <p>Socio economic impacts of the project intervention on informal sectors will be assessed and environmental management plans (EMP) developed, implemented and monitored.</p>
<p>Training and awareness of POPs</p>	<p>Component 4.</p>

<p>In Ethiopia, there is no ongoing baseline projects/ activities on training and awareness raising on POPs, hazardous chemicals and TG waste except Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African LDCs of the COMESA and SADC sub-regions.</p>	<p>The project will provide and disseminate integrated training and awareness activities and materials on Circular Economy concepts, BAT/ BEP on POPs, New POPs, hazardous chemicals and reuse and recycling of TG waste, as well as RECP options, contributing to the Circular Economy on the TG sector of participating country and its sustainability, seeking national scaling up and regional replication of the project.</p> <p>In addition, the project will provide National and regional platforms/networks for information and knowledge exchange and experience-sharing on circular economy; global knowledge sharing platform with GEF regional textile project in Africa (UNIDO) and Asia (UNEP); web-based portal for knowledge management on CE, RECP and BAT/BEP for ESM of POPs chemicals and wastes in the textile and garment sector and a gender plan to address and mainstream gender issues in all project outcomes/outputs.</p>
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**f. Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF).**

97. The project falls within the GEF Focal Area Strategies for Chemicals and Waste in the GEF-7 cycle. The issues relating to phasing-out POPs are particularly aligned with GEF C&W program 1 on Industrial Chemicals. An estimate of the global environmental benefit achievable during the life of the project can be carried out on the basis of the prevention and reduction of POPs, uPOPs and hazardous chemicals use and default emission factors using the UNEP Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs under Article 5 of the Stockholm Convention. Assuming that BAT and BEP measures implemented in at least six demonstration facilities during the current project with the support of GEF, this could bring companies from the current, baseline technology level to a BAT/BEP-based level, by preventing/ reducing POPs and hazardous chemicals use and reducing uPOPs and GHG emissions, the minimum targets and results are being estimated in the following table:

Participating country	<b>Reduction</b> , disposal/destruction, phase out, <b>elimination</b> and avoidance of <b>chemicals of global concern</b> and their waste in the environment and in processes, materials and products (metric tons of toxic chemicals reduced) (PFOF)	Reduction, avoidance of emissions of <b>POPs to air</b> from point and non-point sources (grams of toxic equivalent gTEQ)
Ethiopia	3.5	7.500
<b>TOTAL</b>	<b>3.5</b>	<b>7.500</b>

98. It is estimated that project will reduce, dispose/destroy, phase out, eliminate and avoid 3.5 tons of PFOS in the environment and in processes, materials and products. Furthermore, the project will result in the reduction of 7.5 grams of toxic equivalent gTEQ of emissions of POPs to air from point and non-point sources. These targets are estimated based on the little data available and will be elaborated during the PPG phase. This benefit in terms of metric tons of POPs/ hazardous chemicals prevented/reduced, grams of toxic equivalent of uPOPs emissions avoided and metric tons of TG waste reuse/recycled per year, can reasonably be extended for a period of 10-15 years corresponding to the duration of the BAT/ BEP/ RECP investments in pilot plants. Moreover, the benefit gained during the project life will be leveraged in the future by the strengthening of the national regulatory mechanisms and by the extension of the techniques and measures implemented during the project to the entire TG sector in the country.

99. Further POPs reduction opportunities will be explored during the PPG phase, including expanding the involvement of the private sector institutions. The cooperation with ZDHC will help in developing a chemical inventory to monitor the use of safe chemical and ensure the elimination of POPs chemical use.

100. Direct beneficiaries of this project will be:

- Private sector companies employee involved in the production, who will be trained on BAT/BEP/RECP. This training will also be open for the wider TG sector companies.
- Policy makers will be trained on legal and institutional framework for Environmentally Sound Management (ESM) of POPs and Circular Economy concept.
- Regulatory, compliance monitoring bodies and custom officers will be trained on Hazardous chemicals tracking, monitoring and enforcement.
- Training banking and financial institutions on green financing appraising.
- Prospective entrepreneurs who are interested in recycling business will be trained.
- Training NGOs and public awareness raising on hazardous chemical including POPs, recycling and investment opportunities.

101. It is expected that project will benefit more women than men since the majority of the workers in the global TG sector are women, constituting up to or more than 80 per cent of the workers in the rapidly growing textile and garment sector in Ethiopia.

102. As co-benefits, the project will reduce the GHGs emissions from the open burning operations. During PPG, the GHGs emissions reduction benefits will be captured using the UNFCCC appropriate methodology. The project also will reduce/prevent land degradation through improving waste management practices and prevention of open burning taking into consideration the limited available land and vulnerability of the country to climate change.

103. Mitigation of land contamination will be addressed through the recycling and reuse of textile discards and wastes that are currently being disposed of in open landfills, which are causing the land contamination. The project will not address contaminated land decontamination but avoid further decontamination through the diversion of wastes into recycling businesses.

#### **g. Innovation, sustainability and potential for scaling up.**

##### Innovation

104. The introduction of circular economy concepts as well as BAT/ BEP/ RECP in the TG sector is a relatively new and innovative strategy in the participating country as well as the overall GEF POPs program. The innovative approach of this project proposal lies mainly in the promotion of Circular economy in the TG sector through BAT/ BEP actions for the prevention and reduction of POPs/ hazardous chemicals use and waste and TG waste with the simultaneous implementation of RECP measures on possible energy efficiency, materials efficiency and renewable energy measures. This will enhance circular economy of the TG sector by reducing the use of natural resources, preventing/ reducing the use of POPs and hazardous chemicals, reducing health and environmental impacts while improving the efficiency and augmenting the profitability of TG facilities. It should also be noted that the innovative approach of this project is achieved through the active involvement of the private sector along the supply chain.

##### Sustainability

105. The project has a high probability of being sustainable as it will partner directly with private sector companies and associations that has expressed their interest in the project and improving and investing in their environmental performance. The project objectives are aligned with national policies of participating country. The enhancement and improvement of national regulatory mechanisms to promote circular economy in the TG sector will provide the framework for ensuring the sustainability of the project in the future years after project completion. The TG industry (both facilities and National Associations, National Development Agencies and major international brands) involvement in the PIF preparation as well as in all project stages will ensure ownership, commitment, cooperation and partnership from TG companies top management to move forward in the circular economy agenda. Minimizing chemicals, water, energy, materials consumption and waste generation will bring relevant economic benefits which will balance required BAT/ BEP/ RECP investments improving the TG facilities efficiency while reducing/ avoiding economic, social and environmental risks and impacts.

106. Project activities will also provide the basis for the development of domestic research programs and services in the circular economy, BAT/ BEP/ RECP fields in the TG sector or others. This would generate a new breed of professionals with specialized expertise in this field and the development of new job opportunities, thus contributing to the economic growth while supporting moving forward in the circular economy agenda of the TG sector, other industrial sectors and participating country as a whole.

107. The circular economy will provide new opportunities for economic diversification, value creation and skills development, going beyond waste management and recycling. Raising resource productivity, improved 'circularity' in product policy and reducing waste can greatly lower both resource consumption and greenhouse gas emissions, as well as reduce the supply risk of raw materials. Creating resilient circular value chains will increase the

resilience to crisis (e.g. climate change, pandemics) by reducing raw material inputs. It can provide opportunities, such as improved market access (e.g. for producers of environmental goods and services) or financial savings from more resource efficient processes. To face any challenges in financing the transition to a circular economy, there is a need to rely on a combination of funding sources: mobilizing finance such as GEF funding and opportunities through the international brands programmes, etc. The project will provide technical assistance to build capacities to prepare investment projects and through engagement of public and private sector locally, regional and globally. Also, the project will develop financing mechanisms and business models for CE which will facilitate the attraction of new investments in green industries. The project will undertake a techno-economic feasibility study which will provide technology, financial and socio-economic data for sound investment decision making.

#### Scaling up

108. The basis for scaling up and replication of circular economy in the TG sector is embedded in the training, awareness and capacity building activities with the dissemination of circular economy concepts, BAT/ BEP/ RECP relevant information, experience and lessons learned. The holistic approach to prevent/reduce POPs/ hazardous chemicals use and its substitution by non-chemical alternatives if possible, the application of the RECP methodology including energy efficiency and renewable energy technologies, coupled with an effective promotion and enforcement of BAT/ BEP, could be used as a reference for the TG sector of other countries, the African region and other major TG regions facing similar challenges.

109. This will also be achieved by the active participation and involvement private sector and global brands/foundations like the Ellen MacArthur Foundation, which has a large repository of information and knowledge on Circular Economy and has also developed a number of training toolkits and methodologies on CE and transformative change with other international partners. The project will use the knowledge, network and expertise of Zero Discharge of Hazardous Chemical ZDHC, which will carry out certified training and capacity building programme on sustainable management of chemicals in industries. Already most of the global brands in the TG sector have signed up to the ZDHC programme. With the active involvement of both of them, the project will be able to mobilize and enlist the commitment brands like H&M, PVH, etc, which will drive and realize the expected transformational change. Furthermore, through facilitating access to low cost investment financing sources like Levi's work on PaCT, suppliers can get access to low-cost financing to invest in up scaling the project.

110. The project will establish regional cooperation and network for information exchange and experience sharing as well as regional and inter-regional knowledge management. Specifically the project will be implemented in close linkage with the ongoing UNIDO regional textile project in Lesotho, Madagascar and South Africa (GEF ID 10543) which is being implemented in parallel and linkage with UNEP Asia regional textile project (GEF ID 10523). The project will also collaborate with SWITCH MED II (SMII), an existing project targeting the sector in that North African region through experience and knowledge sharing.

111. In the process of developing the project, there have been broad based stakeholders engagement to be able to establish synergies and complementarities among relevant projects, Programme and initiatives. This has been articulated in the PIF During the PPG stage, in depth consultation will also be able to identify details of the projects and initiatives that are implemented by our partners to further deepen the impact of the project and its replicability and upscaling.

## 1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

### Ethiopia

#### Ministry of Industry

##### Ministry of Industry

2.8 ★★★★★ (4)  
Government office



Directions



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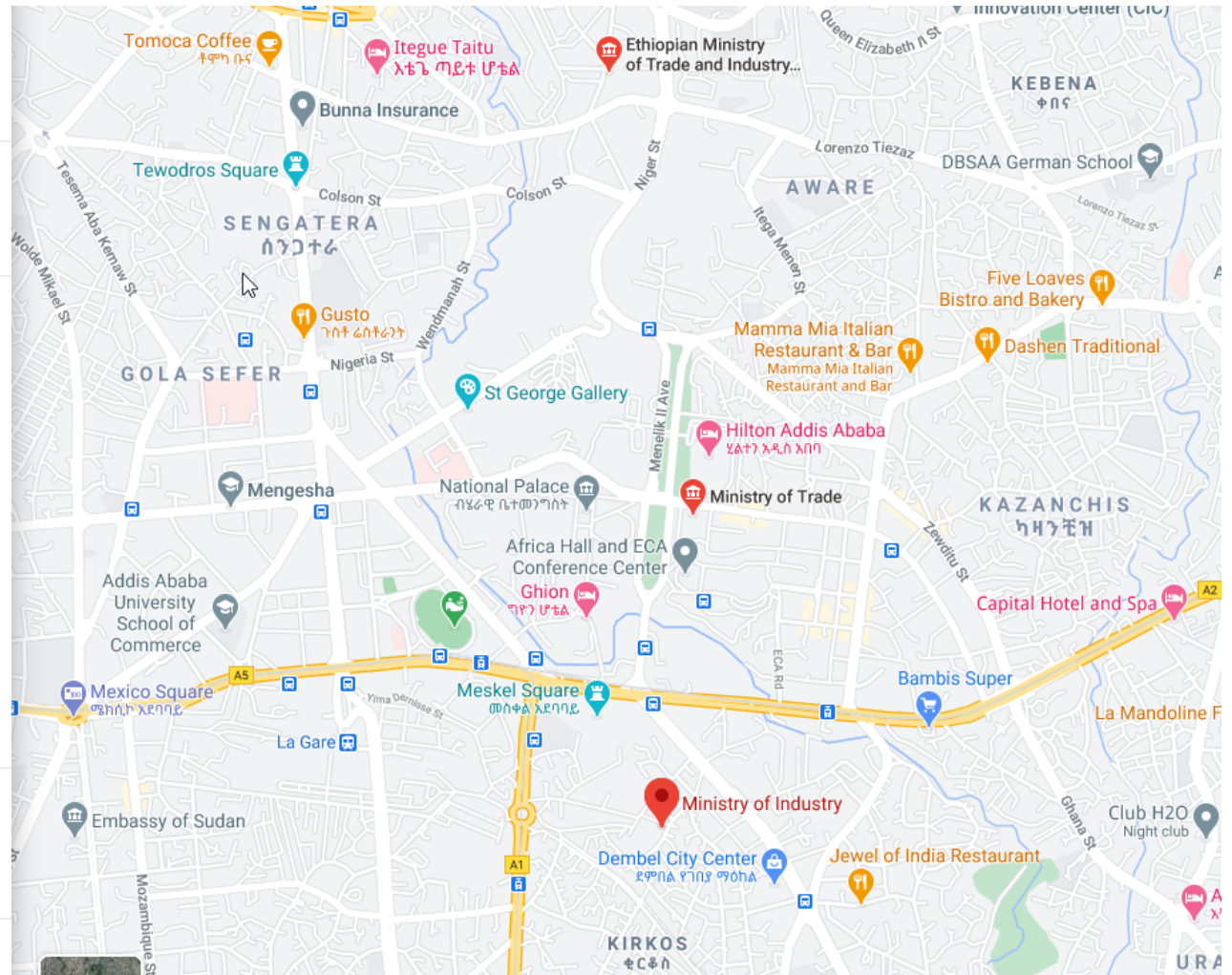
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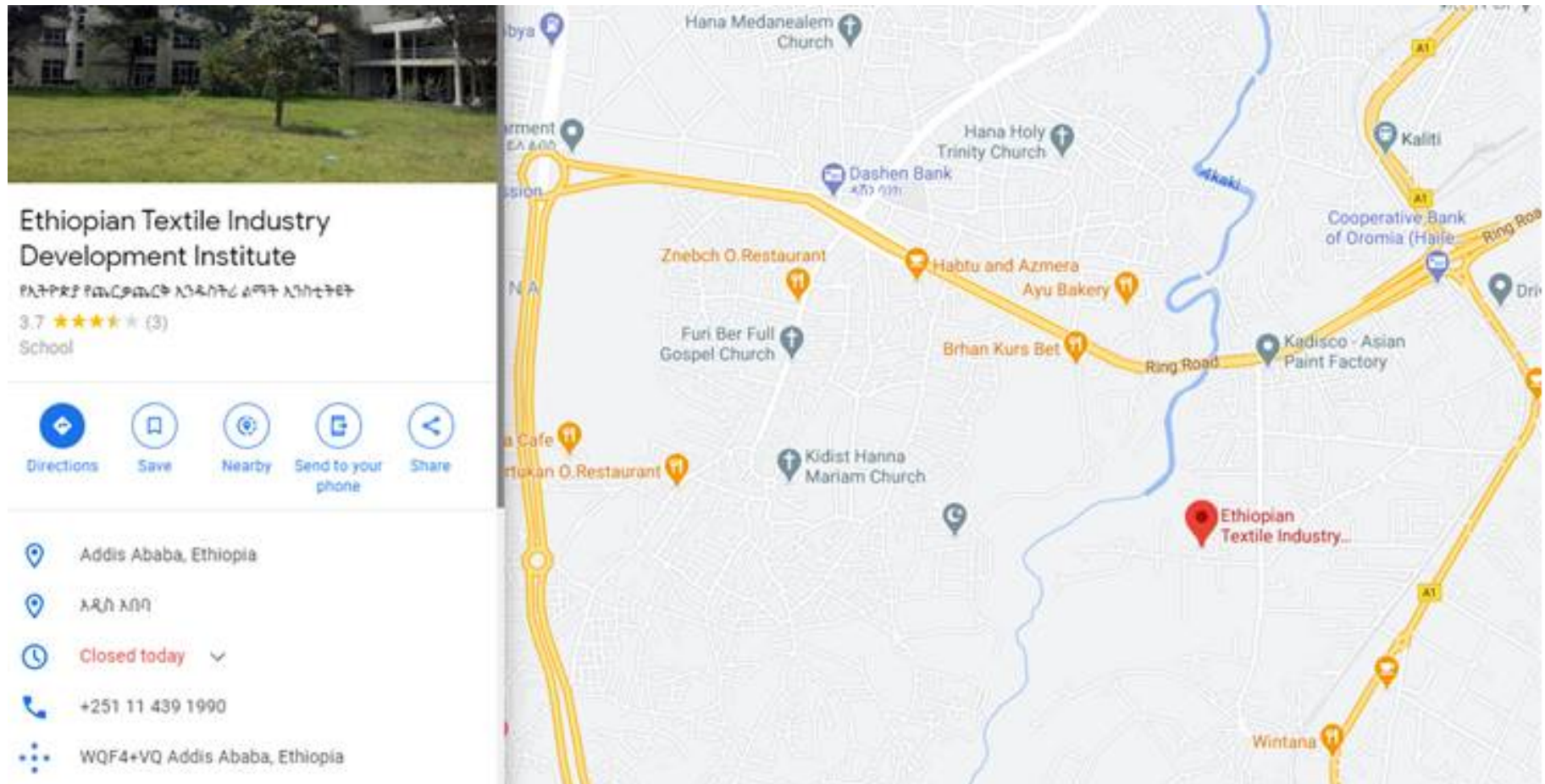
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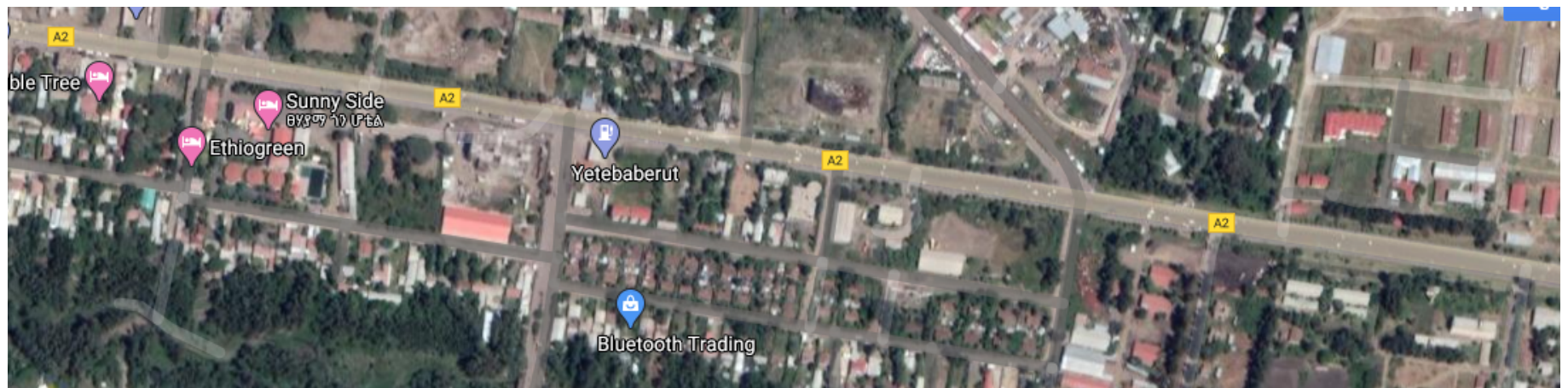
## Ethiopian Textile Industry Development Institute (ETIDI)



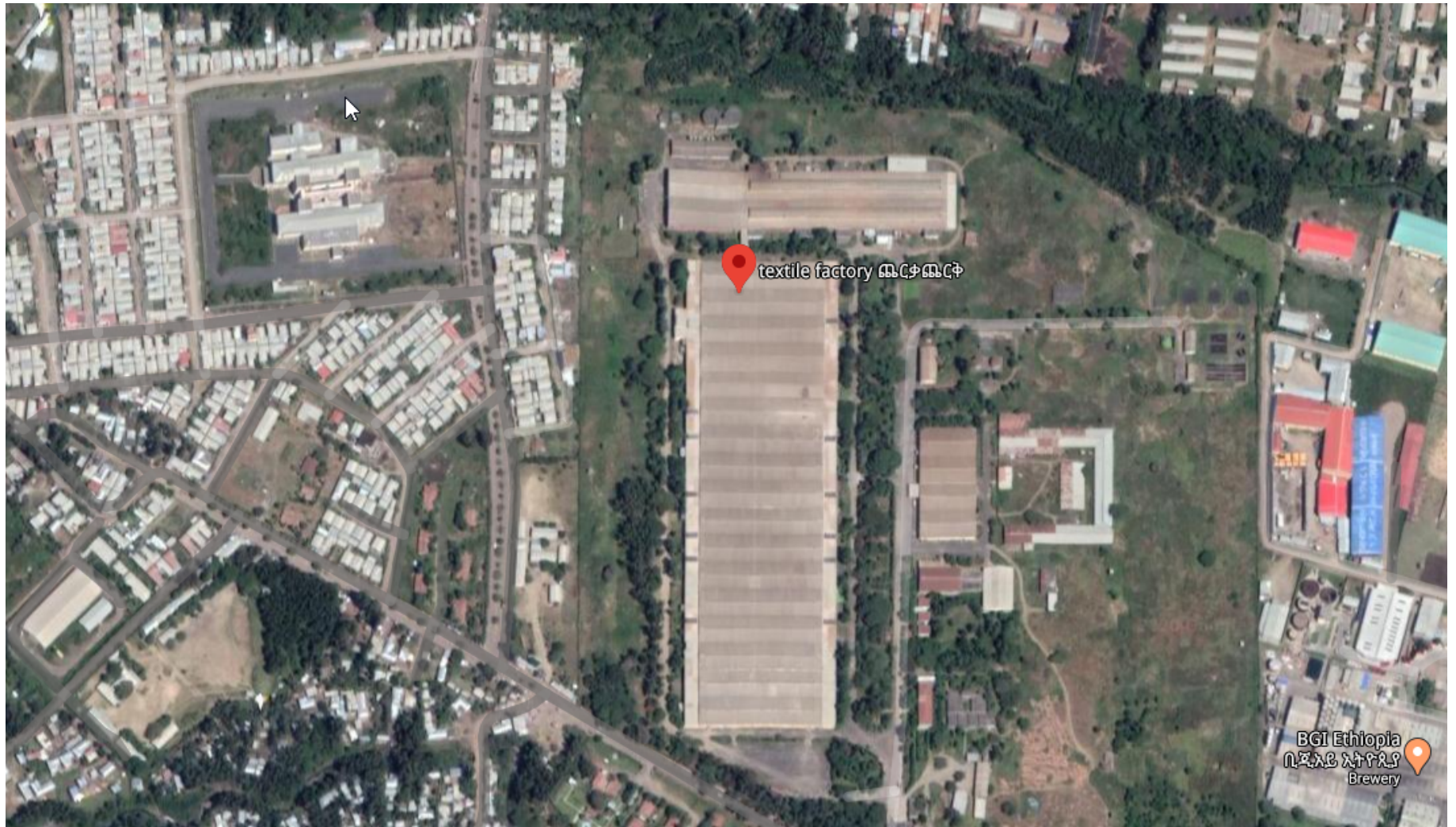
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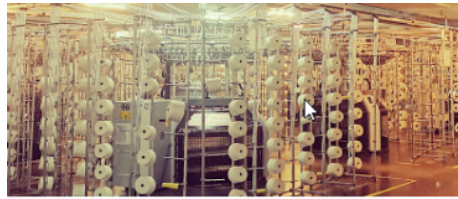
Kombolcha textile (11°05'06.8"N 39°43'19.3"E)







MAA Garment and Textiles (13°28'54.6"N 39°32'01.5"E)



## MAA Garment and Textiles

5.0 ★★★★★ (3)  
Clothing manufacturer



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## Trio Craft plc

5.0 ★★★★★ (1)

Textile mill



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Ethiopia



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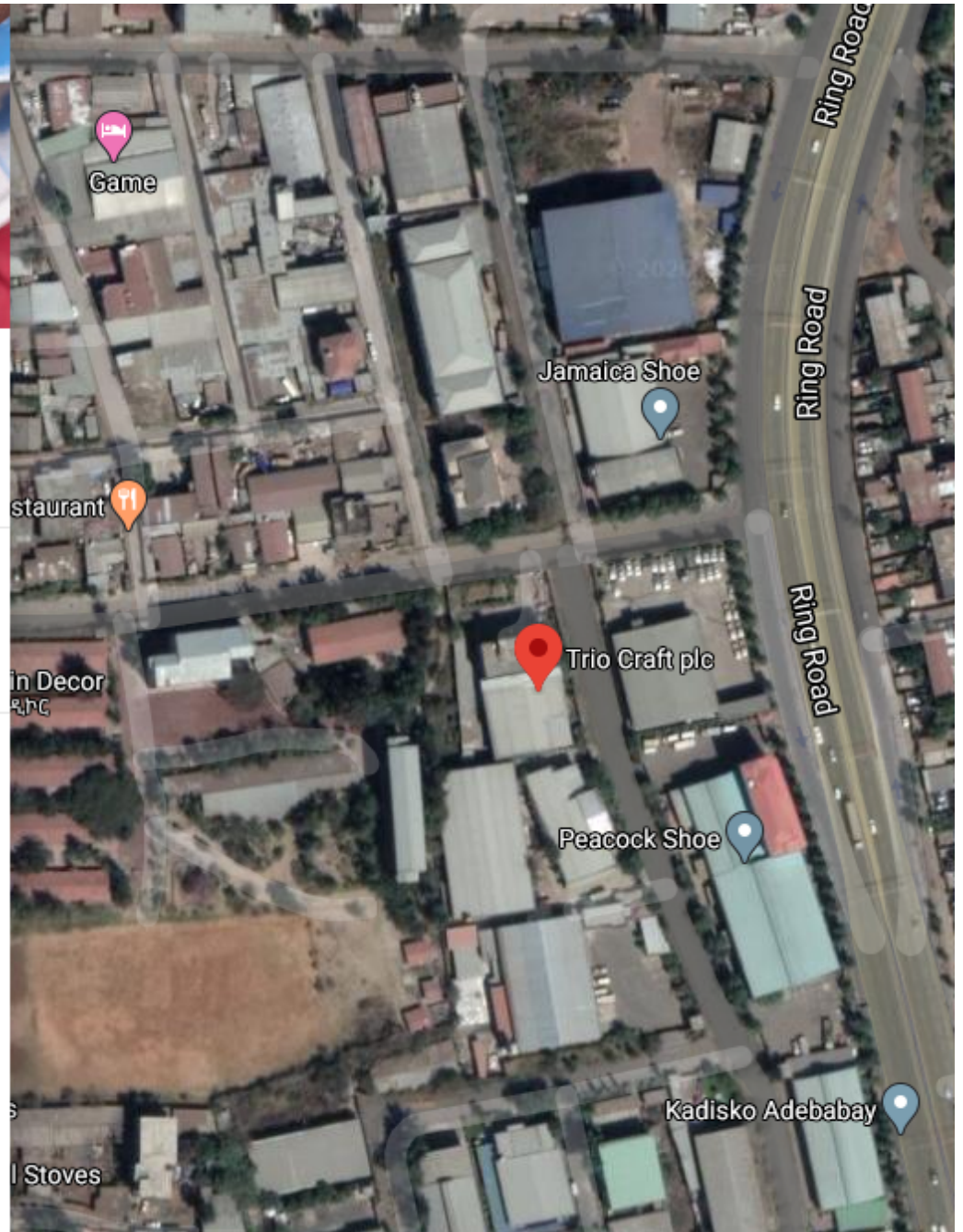
triocraftethiopia.com



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Edget Garment P.L.C.

## Edget Garment P.L.C

Manufacturer



Directions



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Addis Ababa, Ethiopia



አዲስ አበባ



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3Q7F+M9 Addis Ababa, Ethiopia

Velocity Apparelz Companies PLC







## Velocity Apparelz Companies Plc

4.4 ★★★★★ (7)



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## 2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

112. During the consultation meetings held with the country to develop this proposal, the following stakeholders were met and consulted:

- Ministry of Industry of Ethiopia, The Environment, Forest and Climate Change Commission.
- Ethiopian Textile Industry Development Institute (ETIDI) and Ethiopian Textile/garment manufacturers' association (ETGAMA).

The ministry, ETIDI and ETGAMA were involved in identifying the private sector companies and the planning of the visits in the country as the following:

- Bahir Dar Textile factory, Kombolcha textile, MAA Garment and Textiles, Trio craft plc, Edget Garment P.L.C., Velocity Apparelz Companies PLC and Etur textile plc.

106. Through their supply chains, the project will get the buy-in of international brands like PVH and H&M and in talk with others. Future collaboration and cooperation was agreed and details of their CSR programmes and case studies were shared with UNIDO. Ellen MacArthur Foundation, a Foundation that has been promoting the concept of circular economy and launched reports/studies with one on the TG sector, was consulted and agreed to partner with UNIDO on the project. This project will collaborate with UNIDO Africa project (GEF ID 10543) and UNEP Asia textile project (GEF ID 10523) in close linkages with potential joint activities in knowledge management. ZDHC will be cooperating with UNIDO in the implementation of the this project. This will further strengthened private sector participation especially e the international brands that UNIDO consulted and will be partnering with as almost all of them have signed on to the ZDHC programme. The involvement of the ZDHC in the project will promote synergy and complementarity between all the projects and in cooperation with the international fashion brands.

**In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.**

113. All stakeholders will be consulted for collaboration, strategy and partnership during the project preparation grant (PPG) phase to verify baseline information, repopulate further data and consulting for project implementation, including potential roles and responsibilities during project implementation. Private sector collaboration and partnership is key to attaining success on BAT/ BEP/ RECP implementation on prevention/ reduction of POPs, hazardous chemicals use and ESM, as well as TG waste reuse and recycling.

114. They will also be consulted widely to identify all national stakeholders and discuss their needs including their expected roles in the project. Stakeholders will include broadly defined major stakeholder groups such as: governmental institutions (especially ministries dealing with environmental, health, industrial, research, and scientific issues); TG manufacturers, waste collectors, and recyclers from the formal and informal sector; communities or



cooperatives; research and academic institutes; national cleaner production centers; and NGOs, traditional leaders and local communities, and faith-based organizations, among others.

115. Different ministries will be involved in the proposed project such as the Ministries of Industry (TG sector); Ministries of Energy (Energy Efficiency and Renewable energy), Ministries of Finance and National Revenue Authorities (tax relief, tax incentives/subsidies, project co-financing, building capacity), Customs Departments (control of import/ export of POPs, hazardous chemicals, hazardous waste, waste), Economic Development Agencies (ETIDI and ETGAMA), support on project development, co-financing (in-kind and in-cash) of project activities; Ministries of Education (on curricula, training and POPs awareness module), Ministry of Local Government (waste management and recycling, landfills design and management, local capacity development).

116. Table 2 below provides a preliminary list of the main stakeholders, their interest in the TG sector, and their potential roles and responsibilities. During the PPG phase, additional stakeholders will be identified and invited to participate. Bilateral meetings will be held with all key stakeholders, and national stakeholder consultation and validation meetings will also be organised. The consultations will include soliciting stakeholders' views on the appropriateness of the project, how it affects them, and how they can contribute to project implementation by defining specific roles that they can play. Final selection of participating textile and garment facilities suitable for technical assistance and investment on BAT/ BEP/ RECP under this project will be done during PPG, including commitment of in-kind and cash co-financing and investment.

Table 2. Stakeholders and potential roles

NAME	TYPE	SPECIALIZATION	ROLE IN THE PROJECT
UNIDO	International Organisation	Specializes in international development related work	Implementing Agency
<b>EXECUTING PARTNER</b>			
Project Executing Entity (PEE): Ministry of Industry of Ethiopia	Government	Management of Technical cooperation projects, responsible for policy formulation and economic, scientific and technological interventions; Setting standards and regulations; coordinates all matters related to environmental management	<ul style="list-style-type: none"> <li>· Chairing the PSC</li> <li>· PEE will host the PMU and execute project activities at the national level</li> <li>· Coordinate project activities</li> <li>· Supports national training and capacity conducted under the project</li> </ul>

			<p>project</p> <ul style="list-style-type: none"> <li>· Leads the formulation of the circular economy frameworks for the TG sector and supports its implementation.</li> <li>· Supports the formulation for the ISW M and ESM for textile and garment wastes/discards.</li> <li>· Facilitates the identification and implementation of appropriate incentives to promote CE and BAT/ BEP/RECP in the TG sector.</li> <li>· Supports and establishes a framework for BAT/ BEP/RECP transfer.</li> <li>· Stockholm Focal points in participating country is responsible for POPs and national reporting between national stakeholders and the Secretariat of the Stockholm Convention and UNIDO.</li> </ul>
Ministry of Finance	Government	Resource mobilisation for the implementation of the strategy	<ul style="list-style-type: none"> <li>· Part of the PSC</li> <li>· Propose and imple</li> </ul>

		<p>tion of the strategy, Distribution of financial resources to national stakeholders; collection of levies on imported plastic products at the point of entry.</p>	<p>ment the economic incentives, tax rebates and others.</p> <ul style="list-style-type: none"> <li>· Provide financial mechanism(s) to support the activities of the project</li> </ul>
<p>Private sector including TG facilities/companies/supplier,</p> <p>Bahir Dar Textile factory, Kombolcha textile, MAA Garment and Textiles, Trio craft plc, Edget Garment P.L.C., Velocity Apparelz Companies PLC and other TG companies.</p>	Private sector	Textile and Garment manufacturing	<ul style="list-style-type: none"> <li>· Implement BAT/ BEP/ RECP methodology and CE concept for the prevention and reduction of POPs and other hazardous chemicals and materials use in their textile and garment production facilities.</li> <li>· Introduction of CE concept, BAT and BEP in existing and future reuse-recycling facilities</li> <li>· Invest (in-kind or cash) in improving their manufacturing process.</li> </ul>
<p>Private sector including, chemical suppliers, waste/recycling companies and other supply chain actors via the representation in industry associations and initiatives.</p> <p>Etur textile plc and other recycling companies.</p>	Private sector	Chemical supplier, waste recycling and waste transportation	<ul style="list-style-type: none"> <li>· Proactive membership of the business community with experience of financing, business planning detail design, development and operation of textiles sector CiP information systems.</li> <li>· Identification of PO</li> </ul>

			<p>Ps and other priority CoCs with initial experience of alternative assessment and transition to alternatives activities.</p>
Regional convention centres	Technical centers	Training, capacity building and technical support of the implementation of multilateral agreement	<ul style="list-style-type: none"> <li>· Identification and assessment of alternatives to POPs and other priority CoCs in the project. They have a mandate to build national capacity for data collection and reporting to the Stockholm Convention.</li> </ul>
Resource Efficient and Cleaner Production Network (RECPNet) members	Technical and capacity building centers	Promote RECP in the industry, provide technical support and capacity building	<ul style="list-style-type: none"> <li>· Act as business intermediaries, and support implementation of eco-innovation.</li> <li>· Industry assessment</li> <li>· Policy advice</li> </ul>
International brands: PVH and H&M	Retailers and fashion companies	Making clothes and apparel and sell them	<ul style="list-style-type: none"> <li>· As global partnership, collaborates with the relevant government and companies on implementing BAT/ BEP/RECP.</li> <li>· Fast track the adoption of circular economy practices nationally and regionally</li> <li>· Facilitate access to their sustainability and</li> </ul>

			low cost investment financing sources through their programs and network
UNEP	International Organisation	Specializes in international development related work	<ul style="list-style-type: none"> <li>· Global collaboration with UNIDO project in Africa (GEF ID 10543) and UNEP project in Asia (GEF ID 10523)</li> </ul>
<p>Non-profit and non-government organizations active on chemicals, textiles issues and in the region:</p> <p>Ethiopian Textile Industry Development Institute (ETIDI), Ethiopian Textile/garment manufacturers' association (ETGAMA) and Fashion Association (Women association)</p>	Civil society	Knowledge of needs and interests of local communities	<ul style="list-style-type: none"> <li>· Manage and coordinate multi-sector projects in the textiles and other sectors.</li> <li>· Assist in communication/ outreach activities at regional and international levels, support awareness raising.</li> <li>· Participates in the design and operationalizations of the TGC collection/buyback centers</li> </ul>

### 3. Gender Equality and Women's Empowerment

**Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).**

117. Gender and Development (GAD) considerations will be made as an integral part of the project strategy in consideration of the Gender policies of the GEF, UNIDO as well as those of the Government of Ethiopia. Gender is a critical component in the area of textile and garment sector as well as sound management of POPs, chemicals, waste and hazardous waste because the percentage of women working in the textile and garment sector in general terms is higher than men, so more women might be exposed to toxic chemicals. A study by Hawassa University titled "Challenges and Coping Strategies of Rural Girls to the New Industrial Working Culture: The Case of Female Workers in Hawassa Industrial Park" estimated that as of March 2019, industrial parks , which mostly focused on TG, created a total of 70,000 jobs and with 80 percent comprised of women employees.

118. In addition, women and children predominate in the lowest levels of waste gathering, that is, those that depend on the least valuable wastes whose retrieval demands the greatest amount of simple labor for the lowest cash returns. Thus, on dumpsites that received largely organic and inert rubbish including textiles offcuts but sometimes also mixed with hazardous waste, one finds women and children, except in rare cases men join them. Waste pickers and informal waste recycling communities working on dumpsites/landfills are directly exposed to various infectious diseases and toxic substances during collection and sorting of wastes, open burning and open dumping of wastes that may cause illnesses and accidents. The health of these workers must be considered in the environmentally sound management of POPs, hazardous chemicals and waste.

119. A gender plan to address and mainstream gender issues in all project outcomes/outputs will be designed in the PPG phase and implemented in the project. The communication strategy will include activities for disseminating information on environmental and socio-economic risks associated with POPs, hazardous chemicals and waste and related issues to the general public especially to women and children groups, textile-garment community, relevant community groups, etc. The project will also take a concerted effort to target women and children in the training and information dissemination as well as involving them in the environmentally sound management of POPs, hazardous chemicals and waste.

120. In addition, mandatory UNIDO gender markers will be applied, and that the project shall be rated for gender relevance. Gender marking entails inclusion in project reporting of the following data by year 2 and on completion, including: (i) Total number of full-time project staff that are men/women; (ii) Number of jobs created by the project that are held by men/women; (iii) Number of gender sensitive publications produced.

**Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes**

**closing gender gaps in access to and control over natural resources; Yes**

**improving women's participation and decision-making; and/or Yes**

**generating socio-economic benefits or services for women. Yes**

**Will the project's results framework or logical framework include gender-sensitive indicators?**

Yes

#### 4. Private sector engagement

**Will there be private sector engagement in the project?**

Yes

**Please briefly explain the rationale behind your answer.**

121. The private sector engagement is particularly prominent in this project. At the national level there is often a lack of strategic coordination between the various government officials and private sector actors involved in respectively regulating and undertaking TG manufacturing, collection, recycling, and trade. There is also an absence of dedicated capacity within regulatory agencies to address TG wastes, management of their disposal and related issues. However, the government has a fundamental responsibility to ensure the provision of adequate waste management services by creating an enabling environment for the private sector (and other stakeholders), invest in waste management activities, promote TG recycling and material substitution, and create jobs. Thus, the regulatory and policy work will be undertaken by the public sector in close consultation with the private sector. However the actual work will be done by private sector companies.

122. The private sector has technical knowledge, skills, resources, and capacity to scale-up investment and provide innovative solutions along the entire TG life/value-chain. Therefore, this project will promote private sector engagement and the forming of partnerships between government and the private sector at the national and international levels to bring about the desired solutions.

123. During the development of this proposal, several textile and garment factories were visited and/or consulted in the project, to seek project collaboration, partnership and sustainability through co-financing and in-kind commitments. All companies visited were regularly investing and were planning to continuously invest on BAT/ BEP measures and they all agree to collaborate in the project. In addition, National Textile Associations and National Development Agencies were also visited for project partnership, agreeing on collaboration and partnership in the project. Given the local knowledge and representativeness of the TG sector, the Ethiopian Textile Industry Development Institute (ETIDI), Ethiopian Textile/garment manufacturers' association (ETGAMA) will be involved on specific project activities to maximize the applicability to the local context and project sustainability and scaling up. The TG private sector will be clearly attracted and incentivized by these National Associations and the project by showing the potential increase of the TG plant efficiency and profitability through BAT/ BEP/ RECP actions. Also, this project will establish partnership and cooperation with global fashion brands for the promotion of recycling and reuse of TG wastes. The access to these brands network, sustainability and financing programs, will facilitate knowledge and experience sharing and access to low cost investment sources. Increasing the participation and contributions from the private sector will enable the GEF-funded interventions to be sustained after the project's completion. The project is expected to become a true catalyst for private sector engagement and related sustainable behavioural change.

124. The private sector which only engages in profit making and economically viable investment, is vital to the sustainability of this project, guaranteeing the economic sustainability of the project and any venture. With the involvement and participation of the private sector this project will benefit from the entrepreneurial drive, business case and appetite for growth and expansion. The project will undertake techno economic feasibility study and develop viable business model for the promotion of CE in the TG sector using the knowledge, business acumen and expertise of the private sector. This will provide a catalogue of business plans for establishment of viable green investment, leading to transformational change of the TG sector. The private sector will provide investment funds that will also contribute to the transforming of the business ideas articulated under this project into real investment, advancing the economic growth and development of the participating country and the region.

119. This project will ensure national and regional knowledge management sharing with UNIDO Africa project (GEF ID 10543) and UNEP Asia project (GEF ID 10523) to ensure replication of the case studies and a long-term promotion of circular economy efficiency, learning innovation among the countries and partners. On the global level, the cooperation with UNEP similar project in Asia, will ensure global corporations which play an important role to ensure the exchange of knowledge, lesson learnt and case studies.



125. The project was conceived based on the development trends in the textile and garment industry to address the issues of environmental protection and sustainability in the sector. Notably the European Union, the European Textile Association and the international fashion brands launched a number of initiatives individually and within the sector to address resource availability and productivity, environmental pollution prevention and sustainability; and climate change. It is the shared vision of a greener and sustainable textile and garment value chain that prompted UNIDO to engage and partner with the international fashion brands and textile and garment production industries to implement this project.

126. Public Private Partnership (PPP) mechanism and supply chain approach will be used to implement the project to mobilize the participation of the private sector in the project. the government will provide the enabling environment through incentives, requisite infrastructures and policy framework and where possible green investment financing. The private sector company through the CSR programmes will also contribute to the project to improve their environment performance and social responsibly. Some of the partners will avail the project of their expertise, information and knowledge in the implementation.

127. The GEF resources will leverage on ongoing CSR programmes and activities of the private sector industries and global brands such as the Sustainable Apparel Coalition (SAC), Better Cotton Initiative (BCI) and Apparel and Footwear International Restricted Substances List Management (AFIRM) programme, zero discharge of hazardous wastes (ZDHC), etc. With the active involvement and participation of the sector, the RECP, BAT/BEP and CSR activities will be implemented along the entire value chain and will provide the development of standards, norms, structures and systems for the sustainable management of the entire global TG value chain. ZDHC will be partnering with UNIDO in implementing this project and with UNEP in implementing the Asia textile project in Bangladesh, Indonesia, Pakistan and Vietnam to address the sustainable management of hazardous chemicals and wastes. The project will therefore try to identify and establish a forum that will be able to harmonize some or all of this CSR initiatives and bring them under a global umbrella for the desired transformational change. The UN Fashion Alliance which has already been established but yet to be fully active could be used as one of the pivots to develop these initiatives and programmes under a global framework.

128. The project has also got the support and buy-in of the Ellen MacArthur Foundation which has carried out some studies and published “ A new textile industry: Redesigning Fashion’s future” and “ Completing the Picture: How the Circular Economy tackles Climate Change”. The cooperation and partnership with the Ellen MacArthur Foundation will provide access to a large repository of information on the sector and also opportunities to share ideas and experience on the strategic transformation of the sector. The Foundation is also working with the PVH and Nike brands which will also facilitate cooperation and partnership and broadened the scope and coverage of cooperation. This will also catalyze global adoption of the recommendations, result and outcomes of the project.

## 5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Risks	Rating	Proposed mitigation
Inadequate political support, regulatory framework partly formulated and not fully implemented and enforced.	Low	Policy/ decision makers will be involved from the inception stage of the project, especially on awareness activities on issues related circular economy, POPs, hazardous chemicals, hazardous waste, wastewater, waste (including textile and garment offcuts), air emissions as well as its environmental and public health implications.
Difficulties in enhancing the regulatory system within the project timeframe	Low	The Government of the participating country, by developing/ ratifying its NIP and by formally applying for this project has already established strong pillars towards the sound management of chemicals and waste. In this project, the relevant Minister and parliamentarians from the environmental select committee will be engaged as early as possible. Specific awareness raising events will be organized and targeted at them. The project will include the review of the legal framework to enable the inclusion of specific provisions regarding TG wastes and CE into the existing legislation, regulations, etc. This is usually more efficient and results in a faster endorsement process compared to the drafting and adoption of new regulations. Having the Ministry of Justice lead the regulatory review has proven to be a best practice in other countries where UNIDO is implementing GEF projects, as challenges are identified and addressed early on, rather than encountered during the approval endorsement phase.
Project resources are not sufficient to ensure the necessary interventions to achieve the planned CE and waste management targets.	Medium - Low	<p>Full ownership of the project will be ensured through regular meetings and discussions with the TG private sector, local TG recycling companies and government authorities from the project inception phase to implement BAT/ BEP/ RECP in the TG sector as well as on the reuse-recycling of TG waste, using a Public Private Partnership (PPP) model, in this last case.</p> <p>The project will allocate enough grants and secure co-financing resources to implement sustainable BAT/BEP/RECP to address the issue of hazardous chemical and TG wastes. Furthermore, the private sector pledge or is expected to pledge and fulfil its commitment to</p>

		o scaling-up local investment in IG wastes management.
Lack of investment on BAT/ BEP/ RECP and know-how for textile waste reusing and recycling and appropriate project partner for recycling.	Medium	BAT/ BEP/ RECP will be developed and implemented supporting national financial schemes and mobilizing private sector engagement and partnership ensuring cost-effectiveness and sustainability of technology transfer, improved plant efficiency and company profitability after the project life.
Lack of key technical capacity from public servants, technicians from the private sector, non-governmental agencies and academia on circular economy, POPs, hazardous chemicals, hazardous waste, TG waste and wastewater ESM as well as energy efficiency and renewable.  <div></div>	Medium	Promoting and monitoring mechanisms will be established to ensure necessary training, capacities and coordinated efforts in implementation and enforcement of regulations.
Lack of coordination and clear roles and responsibilities of key ministries in waste management.	Low	The project intends to address this risk by establishing a strong supervisory mechanism supported by TORs. The project steering committee will be drawn from a wide variety of national stakeholders, fully engaged.
Lack of cooperation and co-financing from the government due to more urgent national needs such as poverty alleviation in compare to the circular economy in the textile garment sector.	Low	Policy/ decision makers and the formal and informal waste management sector, will be involved from the project inception stage, especially on awareness activities related circular economy and its direct connection to sustainable economic development and local companies and jobs creation on sectors such as waste management-recycling, BAT, BEP, wastewater management, energy management, renewable energy, etc.
Lack of cooperation from the informal sector to release textile and garment waste as well other waste potentially containing POPs.	Low	Potential options and financial mechanism designed to incentivize the formal and informal sector. Economic incentive schemes will be explored and implemented to transform the informal sector into formal companies and jobs making the economy more circular and socially and environmentally sustainable.
Target groups not reached in a timely manner and further replication impeded.	Low	Proper awareness and trainings, communication actions and educational materials for information dissemination as well as the incorporation of circular economy, BAT BEP RECP, POPs, hazardous chemicals and waste for all key stakeholders will be developed and implemented.

		emented.
Risk of climate change on the project (e.g. droughts).	Low	The project will take into consideration the vulnerability of Ethiopia to climate change. The project will raise awareness with regards of climate change and the project reduction of the GHGs emissions from the open burning operations and land contamination and surface /underground water pollution. The detailed climate risk screening will be undertaken during the PPG phase in line with STAP guidance.
Low private sector involvement in the project	Low	Extensive consultation and engagement have already been done, which will further be deepened during the PPG stage. Also, the TG industry was selected based on those who are supplier to the international fashion brands and are committed to adoption of international best practices.
COVID 19 impact: There are potential health and safety risks in the recycling of the TG wastes due to potential contamination with medical waste	Low	The project will be based on developing alternative scenarios and Environment sound management plan that focus on sustainable recycling and waste treatment practices, taking into account pandemic risks arising from the COVID-19 outbreaks, to achieve the Global environmental benefits envisioned in this PIF. Awareness raising events and trainings will be developed under this project. Also, The project will build strong partnerships with various relevant stakeholders to address such root causes under the COVID-19 outbreak. All these factors will be considered and necessary adaptation and mitigation strategies will be undertaken during the PPG phase.
Most companies won't be able to meet their financing obligation due to COVID 19.	Low	The project will identify opportunities for bail out and economic recovery funds from government and other donors. Concessionary rate investment financing to be explored.
Cash flow constraints and the uncertainty of the global business environment due to COVID 19, there is little or no interest in investment.	Low	The project will identify opportunities for bail out and economic recovery funds from government and other donors. Concessionary rate investment financing to be explored.

As per UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), the project has been categorized as "B". Category B projects are likely to have less adverse impacts on human populations or environmentally important areas than those of Category A projects. As a result, an Environmental and Social Management Plan (ESMP) will be developed during the PPG phase.

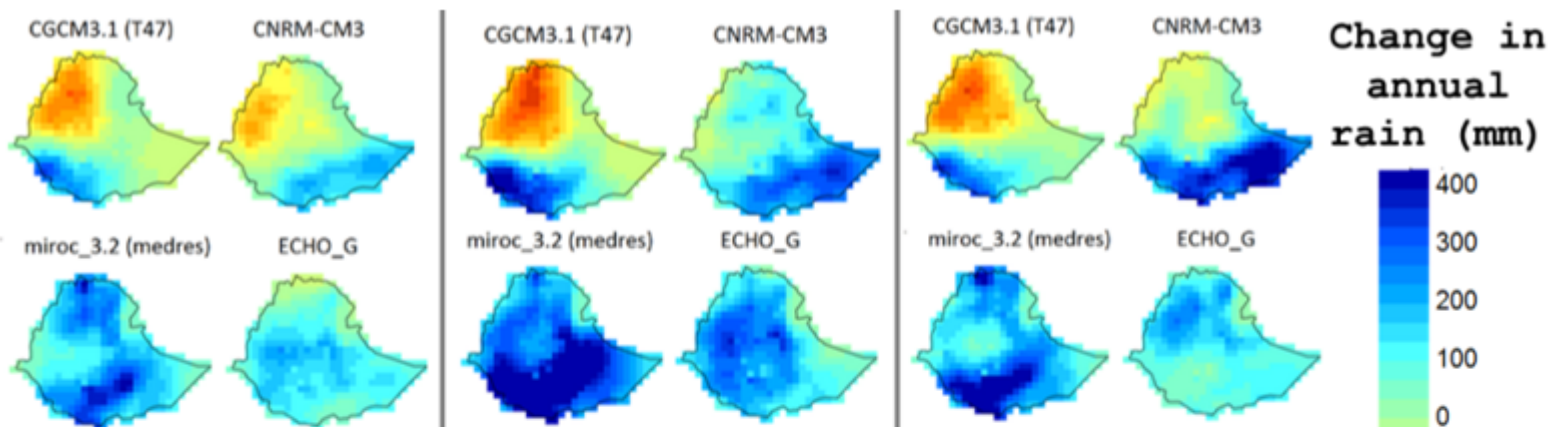
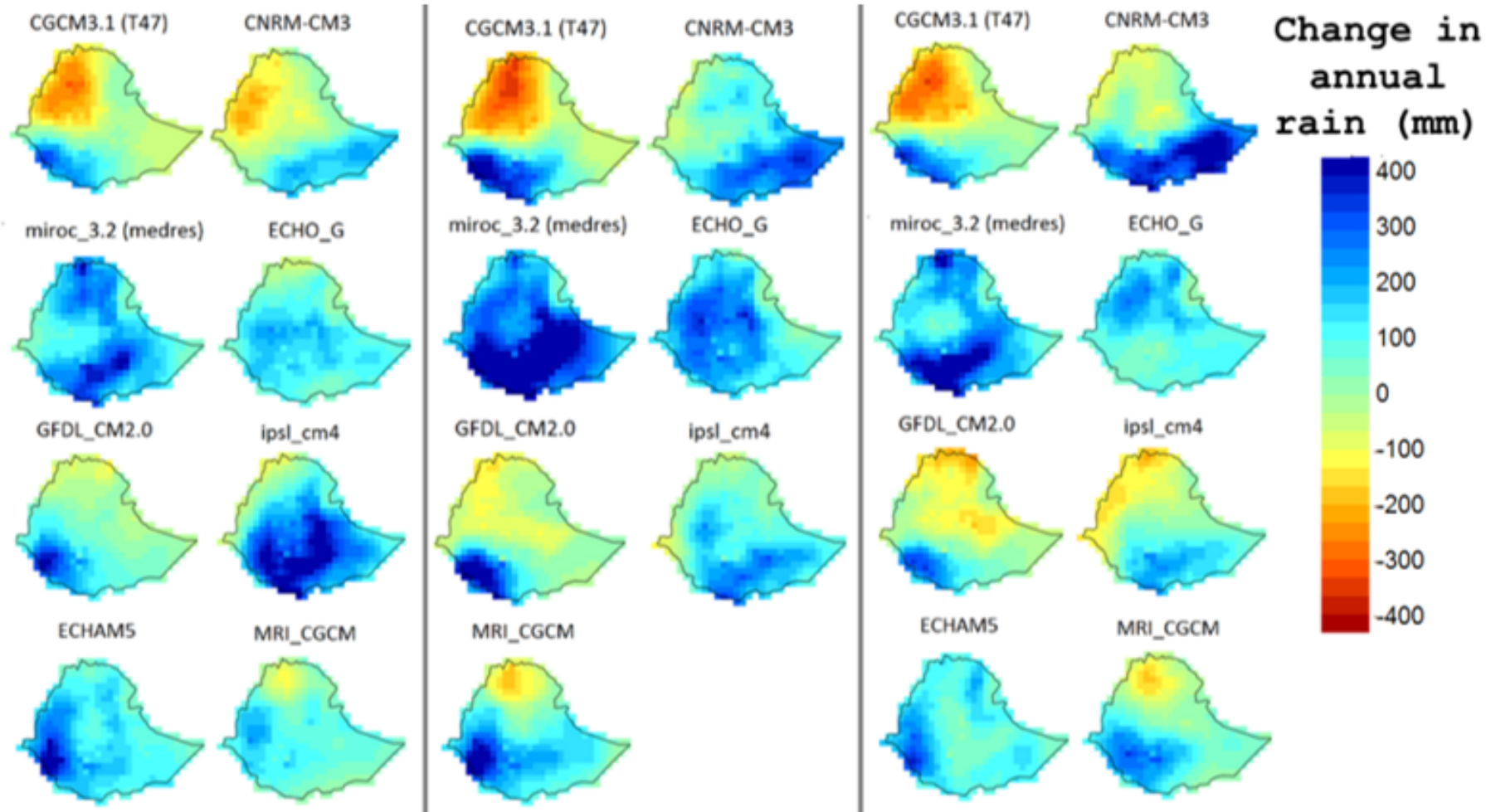
## Climate Risk Screening

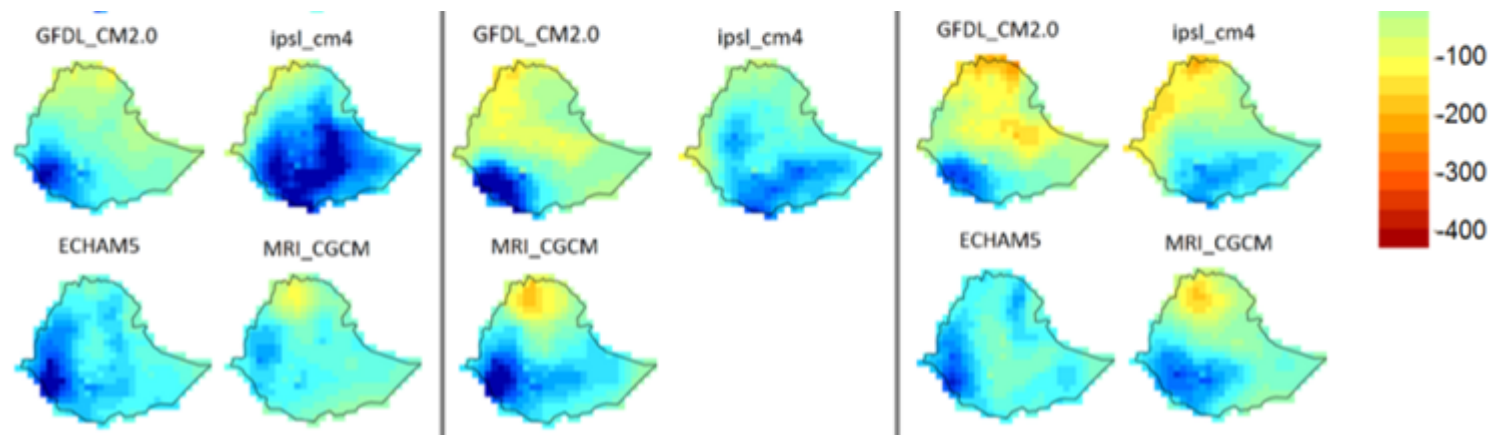
129. According to Climate Change National Adaptation Programme of Action (NAPA) of Ethiopia<sup>[1]</sup>, there was average annual minimum temperatures rise of 0.2 – 0.4°C per decade and average annual maximum temperature of by 0.1°C per decade. This translates to an average aggregate level temperatures increase of around 1°C since the 1960s. The recent second national communication<sup>[2]</sup> reports a temperature increase 0.1-0.4°C per decade, resulting in an average temperature increase of around 1°C (0.25°C per decade) since the 1960s. Climate models project that temperatures will continue to rise in Ethiopia, with 0.5 to 1.5°C of warming by the 2020s and 1.5 to 3°Cs by the 2050s, relative to the baseline 1961-1990 period<sup>[3]</sup>. This implies much higher rates of change than seen historically. There will also be increases in the number of days considered hot and very hot, impacting on evapo-transpiration and soil moisture.

130. Ethiopia has one of the highest levels of inter-annual and inter-decadal rainfall variability worldwide. The recent second national communication indicates a slightly declining trend, indicative of a decrease in total annual rainfall over the years. Perhaps more usefully, there are some underlying trends, which emerge when specific regions and seasons are considered. Recent analysis of satellite and gauge data shows a decline in spring and summer rains – by as much as 15 - 20% since the 1960s in south-central Ethiopia<sup>[4]</sup>. Some locations, e.g. in the Bale mountains, may therefore have seen a decrease in average rainfall of over 100mm between 1970 and today (against average annual totals of approximately 750mm), though this is still within the inter-annual variability (annual rainfall ranges between 550mm and 950mm from year to year).

131. Analysis of multi-model ensembles shows that there is a very large range of projected change for Ethiopia, with the models reporting an envelope of +/- 30% change in future annual rainfall over the next 30 – 40 years<sup>[5]</sup>.

Rainfall trends (mid-century) climate change for low, medium and high emission scenarios showing model and scenario uncertainty. CRGE Agriculture.





132. The impacts of climate change projections are water availability, increased production costs, decreased agricultural productivity; non-availability and/or poor quality of inputs materials, etc. The patterns of potential impacts of climate change on agriculture vary across time and location. For temperature increases of 2°C, negative impacts on yield are projected for major crops in tropical and temperate regions (without adaptation), although individual locations may benefit below this <sup>[1]</sup>.

133. Climate change is also likely to exacerbate the existing problems of soil erosion in the wetter and steeper parts of the country. While the projections of average rainfall in Ethiopia are unclear, projections indicate with more confidence that there might be an increase in the intensity of high rainfall events <sup>[2]</sup>. A major scientific theory underpinning this result is that a warmer atmosphere will be able to hold more water, thus more will be available for a given rainfall event. In East Africa, studies <sup>[3]</sup> report that a large proportion of Ethiopia might experience increased rainfall intensity increasing the risks of flooding and soil erosion. An analysis of the potential change in monthly rainfall, and the potential increases in heavy rainfall events from climate change could see increases in intensity of around 10 to 20%. This could lead to additional costs from soil erosion of 1 -2 t/hectare/year, or at an aggregate scale, up to 1% of agriculture.

134. In the textile and garment sector, climate change impact could result in reduced cotton production/yield, which will affect the availability and quality of nature cotton as input material in textile fabric production. Climate Change will also affect water availability as input material in the wet process of the TG sector. Ambient temperature rise will also require additional energy for cooling and heating in the textile industries, thereby increasing the cost of production. By adopting RECP concept and BAT/BEP methodology, the project will be able to build the capacities of the private sector to minimize inputs materials consumption, avoid/reduce the use of hazardous chemicals; adopt energy efficient techniques and minimize waste generation. RECP and BAT/BEP will promote resource conservation; shift to low-carbon production (a key element of circular economy) and assist in decoupling increase in industrial output from resource use and pollution. The project will address the decreased availability of cotton and other fibre materials through the recycling and reuse of the textile/garment wastes/discards for use as input materials to augment virgin materials in the production textile fabrics.

135. It is currently evaluated that risks of flooding at the selected sites are low. However during the PPG phase detailed site investigation and risk assessment will be undertaken in order to develop appropriate climate change mitigation/adaptation measures.

[1] Rosenzweig, C., et al (2013). Assessing agricultural risks of climate change in the 21st century in a global gridded crop model intercomparison. PNAS(ISI-MIP Special Feature). PNAS.

[2] Allan, Richard P, Brian J Soden, Viju O John, William Ingram, and Peter Good. 2010. "Current Changes in Tropical Precipitation." *Environmental Research Letters* 5 (2) (April 9): 025205. doi:10.1088/1748-9326/5/2/025205.

[3] Shongwe, Mxolisi E., Geert Jan van Oldenborgh, Bart van den Hurk, Maarten van Aalst, 2011: Projected Changes in Mean and Extreme Precipitation in Africa under Global Warming. Part II: East Africa. *J. Climate*, 24, 3718–3733. doi: 10.1175/2010JCLI2883.1

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[1] FDRE (2007). Climate Change National Adaptation Programme of Action (NAPA) of Ethiopia. Federal Democratic Republic of Ethiopia. Ministry of Water Resources/National Meteorological Services Agency. June 2007. Addis Ababa, Ethiopia.

[2] FRDE (2015). Ethiopia's Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). May 2015. Ministry of Environment and Forest.

[3] FRDE (2012). Ethiopia's Climate Resilient Green Economy. Climate Resilience Strategy: Agriculture.

[4] Funk, C. et al., 2012. A Climate Trend Analysis of Ethiopia, Available at: <http://pubs.usgs.gov/fs/2012/3053/>.

[5] Conway, D. and Schipper, E.L.F., 2011. Adaptation to climate change in Africa: Challenges and opportunities identified from Ethiopia. *Global Environmental Change*, 21(1), pp.227-237.



## 6. Coordination

**Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.**

136. During the stakeholders' consultation and engagement process which included governments, private sector industries, business associations; non-governmental organizations (NGOs); a number of potential institutions were identified for consideration as Project Executing Entity (PEE).

137. The Ministry of Industry will serve as the project executing entity. During the PPG, UNIDO and the Ministry of Industry, acting as the designated project executing entity, will work closely to establish the execution roles and responsibilities and other engagement modalities.

138. The PEE will execute policy and institutional framework review; capacity assessment, provide some procurement services; organize awareness raising and public education; national workshops and training programmes, national stakeholders' mobilization and engagement; coordination of national pilot demonstration; progress monitoring and reporting. The PEE will also prepare national progress reports and arrange national Project Implementation Committee (PIC) meetings. The PEE will establish the National Project Management Unit (PMU); provide necessary administrative and secretarial support to the PIC and host its meetings. The PEE will identify competent national experts, agencies, institutions, business associations, and NGOs/CSOs that will execute country specific activities and monitor progress of implementation.

139. It is intended that the Ministry of Industry will manage the execution of project activities. However, the final decision will be taken after the institutional assessment that will be undertaken during the PPG phase. UNIDO will make budgetary provision from the PPG for the institutional capacity assessment and selection exercise for the roles of project executing entity. The consultation process and capacity assessment exercise during the PPG phase will also provide the opportunity to define and delineate in details, the roles, responsibilities and duties of the PEE, the national partners and other stakeholders. Due consideration will be given to availability of requisite capacities, comparative advantage, synergy and the need to consolidate existing structures and networks; and establishment of linkages and complementarities with ongoing regional and national projects and initiatives.

140. This project will work in close coordination at execution level with UNIDO Regional project in Africa (GEF ID 10543). The representative of the national project steering committee will participate in the Project Steering Committee meeting of the regional project. Also, the outputs, reports and other knowledge management products of the two projects will be shared and when necessarily consolidated.

**Funding Partner**

**The Global Environment Facility (GEF)**

**Implementing Agency**

**UNIDO**

## **Project Execution**

**CSOs (Industrial Associations etc.)  
Private Sector, Communities  
Research & Academic Institutions**

### **Project Steering Committee**

Chair: Ministry of Industry of Ethiopia

Members: Environment, Forest and Climate Change  
Commission, UNIDO, Project Executing Entity and other key  
stakeholders

Work in close linkage/cooperation with UNIDO Regional  
Project Steering Committee (GEF ID 10543)

**Project  
Executing  
Entity hosts:**

**Project Management Unit (PMU)**  
Headed by: National Project Director  
Supported by: National/international staff

**Knowledge Management platform in  
coordination with UNIDO Africa project (GEF  
ID 10543) and UNEP Asia project (GEF ID  
10523)**

141. UNIDO has a strong international network in the field of BAT/ BEP/ RECP and POPs and hazardous chemicals management.

142. Coordination with other initiatives:

- The project will be work closely with UNIDO regional project in Africa (GEF ID 10543) and UNEP project on textiles sector in Asia (GEF ID 10523), "Reducing uses and releases of chemical of concern, including POPs, in the textiles sector". Both projects address the same basic problem and include technical components on managing and replacing toxic chemicals in production processes. Both UNEP and UNIDO projects invests in technical

demonstration projects in around 10-13 facilities, to directly achieve GEB. Both projects will intervene at a policy level to promote circular economy approaches throughout the value chain, including regulators and consumers. Finally the shared KM component will ensure efficient sharing of practices and coordination of reporting.

- This project will exchange information with and draw on knowledge, experiences and lessons learned from other relevant GEF-supported projects listed in Table 3. This project will also learn from existing industrial initiatives of implementing CE/RECP in the textiles sector and explore the linkages with environmental monitoring tools such as Pollutant Release and Transfer Registers (PRTs) where industrial facilities report on releases of chemicals.
- This current project will be implemented in close linkages with the PCP programme and Capacity-building and job creation for youth and women in textile sector project. With this project, resources and information will be shared to ensure synergy. Already under PCP, three component assessment of the TG sector was done: Component 1: Productivity Enhancement, Quality improvement and Competitiveness of the Ethiopian Textile Industry, component 2: Products Diversification of the Ethiopian Textile Products from Raw Materials to Marketing and component 3: Garment Industry Institutional Capacity Building. This project will leverage on the capacity built and information gathered under the PCP assessment.

Table 3. Ongoing Relevant GEF and Special Programme Projects in Ethiopia.

	Ongoing Relevant GEF Projects
<b>Regional</b>	- Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Lesotho, Madagascar and South Africa.
<b>Ethiopia</b>	<ul style="list-style-type: none"> <li>- Sustainable textile investment and operation in Ethiopia in 2020.</li> <li>- Capacity-building and job creation for youth and women in textile sector in migration prone areas of Ethiopia, implemented by UNIDO, funded by EURO Trust Funds, approved in 2017.</li> <li>- PCP – Programme for Country Partnership in Ethiopia, UNIDO, 2014</li> </ul>

#### Legal Clause:

The Government of the Federal Democratic Republic of Ethiopia agrees to apply to the present project, mutatis mutandis, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed on 26 February 1981 and entered into force on 5 November 1984.

Full or partial ownership of equipment/assets purchased under the project may be transferred to national counterparts and/or project beneficiaries during the project implementation as deemed appropriate by the government counterpart in consultation with the UNIDO Project Manager.

## 7. Consistency with National Priorities

**Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions**

Yes

**If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc**

143. The government of the participating country is receptive to new global initiatives and development trends and ready to transition its economy from a linear one to a circular one. A number of recycling and reuse activities and business are currently ongoing in the country but however there is a lack of policy and regulatory framework, business model and financial mechanism to unlock the CE potential in the industrial sector.

- The TG sector has been identified as priority for the reduction of uPOPs emissions from open burning operation in accordance with Persistent Organic Pollutants (POPs), 2006 and The National Implementation Plan (NIP) Update of the Stockholm Convention on Persistent Organic Pollutants (POPs), which updates the activities of the initial NIP and define activities for New POPs was not submitted yet.

144. The project will complement and build on current Environmental policies to reduce emissions and protect the environment such as:

- Provisional Environmental standard for Pollution Control in Ethiopia (2003).
- Solid Waste Management Proclamation (Proclamation No. 513/2007)
- Draft Industrial Environmental Policy and Strategy.

145. Through engaging private sector, greening the industry and creating green industries, the project will align with the country Industry Sector Strategy.

## 8. Knowledge Management

**Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.**

146. The project will establish regional cooperation and network for information exchange and experience sharing as well as regional and inter-regional knowledge management. Specifically the project will be implemented with close linkage with/or integrated into the ongoing UNIDO regional textile project in Lesotho, Madagascar and South Africa (GEF ID 10543) which is being implemented in parallel and linkage with UNEP Asia regional textile project (GEF ID 10523). All projects following the same basic structure, which will ensure efficient sharing of practices and coordination of reporting between all the projects, although specific activities will be developed as needed in each region/country.

147. An information management mechanism will be put in place covering: (a) generation of information such as compilation of regulatory and research information governing the execution of project activities; inventories of POPs and chemicals releases from in-country processes and those contained in imported products; information from import and use of POPs and hazardous chemicals through routine monitoring and research, and information from the general public and implementing agencies; (b) archiving and sharing of general information, which mainly describes mechanisms and tools that will be used in the dissemination of information to all stakeholders and project implementers in order to assess the project performance and progress; and (c) appropriate institutions involvement and feedback mechanism for free flow and exchange of information between the project management, all stakeholders and the general public.

148. The project will provide and disseminate integrated training and awareness activities and materials on Circular Economy concepts, BAT/ BEP on POPs, New POPs, hazardous chemicals and reuse and recycling of TG waste, as well as RECP options, contributing to the Circular Economy on the TG sector of participating country and its sustainability, seeking national scaling up and regional replication of the project. In addition, the project will provide National and regional platforms/networks for information and knowledge exchange and experience-sharing on circular economy; global knowledge sharing platform with GEF regional textile project in Africa (UNIDO) and Asia (UNEP); web-based portal for knowledge management on CE, RECP and BAT/BEP for ESM of POPs chemicals and wastes in the textile and garment sector and a gender plan to address and mainstream gender issues in all project outcomes/outputs.

149. The established national information management mechanisms under the proposed project (for example, through a web-based portal for knowledge management on CE, RECP and BAT/BEP for ESM of POPs chemicals and wastes in the textile and garment sector), will be linked to the UNIDO website for wider sharing of information, lessons learned, knowledge and technology transfer of BAT/ BEP/ RECP. It is planned to promote national and regional platforms and networks for information and knowledge exchange and experience-sharing on circular economy.

## 9. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

## Overall Project/Program Risk Classification\*

PIF

CEO Endorsement/Approval MTR

TE

Medium/Moderate

### Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

A preliminary environmental and social risk screening was conducted according to the UNIDO Environmental and Social Safeguards Policies and Procedures (AI/2017/04). The screening categorized the project as “B”. Category B projects are likely to have less adverse impacts on human populations or environmentally important areas than those of Category A projects. An Environmental and Social Management Plan (ESMP) will be developed during the PPG phase.

### Supporting Documents

Upload available ESS supporting documents.

Title

Submitted

UNIDO\_ESS\_Screening\_Ethiopia CE\_signed-1

### Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Mr. Kasahun Wakoya Nikusa	GEF Operational Focal Point	Environment, Forest and Climate Change Commission	9/3/2020

#### **ANNEX A: Project Map and Geographic Coordinates**

Please provide geo-referenced information and map where the project intervention takes place

Please refer to section 1b