South Asia Co-operative Environment Programme (SACEP)
Plastic free Rivers and Seas for South Asia (P171269)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

26 February 2020

EXECUTIVE SUMMARY

PROJECT INTRODUCTION

i. The South Asia Region is the third largest contributor to plastic waste globally with an estimated doubling by 2050 unless action is taken. The Maldives aside, all South Asia's coastal nations are among the top twenty most polluting nations ranked by the volume of mismanaged plastic waste with Sri Lanka ranked among the top six according to published studies.

ii. There is growing global and regional recognition and call to reduce ocean plastic pollution. World leaders, including representatives from SAR within the G7, G20, APEC, IORA, SACEP and the UN, have agreed to reduce plastic waste, and signed agreements supporting greater cooperation across nations.

iii. **The Plastic free Rivers and Seas for South Asia (PRS)** Project consists of four main components totaling US$40 million from IDA that will be implemented over a period of five years.

- Component 1: Regional Competitive Block Grants to Reduce Plastic Waste. The objective of this component is to identify, verify and scale plastic pollution mitigation solutions that would be made available as a regional and global public good. To this end, the project will develop, administer and support a first of its kind SAR regional competitive grants program that would reduce plastic pollution and provide a demonstration effect for SAR nations on what is possible.

- Component 2: Leveraging Private Sector Engagement and Solutions. This component would be supported by design of the regional mechanism (including, operations manual) and branded platform; support for annual convenings of public sector policy and decision makers with private sector representatives, including the sharing of PPP solutions from within the region and beyond; support for a research agenda that would identify sticking points in policy and its implementation (i.e. single use plastic bans) and identify workable and effective solutions; informational website, and operational support.

- Component 3: Promoting Educational Partnerships, Awareness, and Behavioral Change. The objective of this proposed component is to promote education, increase awareness and stimulate behavioral change of citizens across SAR. IDA support would forge educational partnerships targeting young people and public awareness campaigns. The rationale for this component is that the plastics waste problem cannot be solved without changing mindsets, particularly society's dependence on single use plastics.

- Component 4: Strengthening Regional Integration and Project Management. The proposed objective of this component would be to support regional coordination, cooperation, institutions and policy development that deliver both short and long-term solutions.

iv. The South Asia Cooperative Environment Programme (SACEP) is the implementing agency for this project. SACEP is an inter-governmental organization established by Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka in 1982 to promote and support protection, management and enhancement of the environment in the region.

v. All SAR countries will benefit from the project by virtue of the IDA proceeds that support the implementation of important features of two regional action plans, one specifically prepared to address marine litter, the other one on solid waste more broadly – both that feature plastic waste management and reduction. These plans (with proposed activities) were prepared by SACEP, consulted with all SAR nations and endorsed. The proposed project is designed to ensure that the activities are structured such that SACEP member-states are fully engaged during implementation.

PURPOSE OF THE ESMF

vi. The **Environmental and Social Management Framework (ESMF)** provides general policies, guidelines, codes of practice and procedures for the project. This ESMF is developed to ensure compliance of the project with the World Bank Environmental and Social Standards (ESS) and WBG environmental health and safety guidelines (EHSGs)and applicable environmental rules and regulations of the governments of the SAR countries.

vii. More specifically, the ESMF is an instrument that examines the risks and impacts of this project which will later consist of several subprojects (implemented by the partners and grantees), whose risks and impacts cannot be determined until the details have been identified. The ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts according to the WB ESS and the SAR countries respective environmental regulatory frameworks. It contains measures and plans to reduce, mitigate and/or offset adverse risks and impacts, positive and negative list of subprojects, provisions for estimating and budgeting the costs of such measures, and information on the agency or agencies responsible for addressing project risks and impacts, including on its capacity to manage environmental and social risks and impacts; and the procedures for disclosure and grievance redress.

viii. As part of the data gathering and preparing the ESA and ESMF, an initial stakeholder consultation meeting on Plastic Free Rivers and Seas of South Asia Project was held on 19th January 2020 in Male, Maldives. Various stakeholders including government, private sector, civil society, hoteliers, and NGOs participated the one-day consultation meeting. During this consultation, participants were able to identify possible stakeholder groups, ongoing complementary activities, priority areas, etc. Several plastic recycling facilities and plastic litter collection points in Sri Lanka were also visited as part of the consultation process in the drafting of this ESMF.

ix. Another round of consultations is scheduled in Sri Lanka and Bangladesh in March 2020 prior to project appraisal where the results of the ESA and the draft ESMF will be presented for comments and further enhancement. Stakeholder consultations and engagement will continue post-approval of the project and during implementation.

POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

x. The proposed project, **both through TA and the block grants**, is expected to have largely positive and beneficial impacts for SAR and its oceans. The project's objectives to support the enabling environment, cross-country coordination and capacity building, innovation; and support to the 3Rs is expected to have positive long-term effects in reducing and the dumping of plastic wastes in waterways that end up in coastal areas and oceans. The project will stimulate partnerships among civil society organizations, youth groups and other stakeholders to support national and community-based behavior change and awareness raising; provide funding for innovative solutions; and support youth-led movements, among other things. It may also support, at the policy level, the

strengthening of E&S standards and certification for sustainable plastics supply chains focused on socially and environmentally responsible waste sourcing and recycling through transparent, accountable, and legitimate supply chains addressing labor issues, working conditions, and livelihoods. In addition to, the project may also support strengthening industry standards for recycled plastic products (e.g., plastic roads and furniture products) to grow secondary-reuse markets and attract private sector investments.

xi. While by appraisal specific types of innovative technologies and solutions to reduce, reuse and recycle plastics which will be supported by the project are not known yet the project design, however, will ensure that only investments that focus on these 3Rs that are resource efficient, sustainable and environment-friendly, among others, will be supported. Those that are pollutive and resource intensive will be on a negative list and will be ineligible for project financing. That said, environmental risks still exist particularly to the potential subprojects through the block grant, which would relate to residual wastes or those plastics that cannot be reused, recycled and repurposed, which will have to be disposed and managed properly. However, given that the thrust of the project is 3Rs, residual plastic wastes should be minimal. In addition, innovative methods of collecting plastics from the oceans may still have risks and impacts, which will need to be properly screened and/or assessed during project implementation.

xii. The environmental risks from subprojects that will be supported through TA are very unlikely as the TA will mostly involve policy review and formulation, institutional building measures and IEC activities.

xiii. On the social side, there will be health risks and impacts to those working in plastics collection such as waste pickers and recycling/repurposing due to potential exposure to harmful materials and chemicals during the recycling process, if proper health and safety measures in work places are not implemented and depending on the technology adopted to recycle and repurpose plastics. Resource use patterns will also need to be assessed in these facilities to ensure resources (energy, water and raw materials) are used in an efficient and sustainable manner. The project will include a range of stakeholders across the region: public sector organizations, social enterprises, community groups, and private sector entities. Specific criteria for the management of the challenge grants will need to be prepared and applied to ensure fair access to funding, especially by women's organizations and youth groups. In addition, institutional capacity of the implementing agency, inter-organizational and cross-regional coordination is also weak, and this will be strengthened under the project.

xiv. Based on the overall positive and beneficial impacts of the project, which outweigh whatever residual risks and impacts there may be on the adoption of environment-friendly, sustainable and resource-efficient technologies and practices on 3Rs, the overall Environmental and Social risk classification of the project is assessed to be Moderate. This will be revisited during implementation and updated, if necessary, in accordance with an adaptive management approach.

xv. According to the Gender Based Violence (GBV) risk assessment, the project is classified as Low Risk. The GRM will be appropriately trained to handle potential GBV complaints ethically. Mapping of GBV service providers will be undertaken.

<u>E&S Risk and Impacts from Subprojects to be Supported by the Block Grant</u>

xvi. The table below identifies potential environmental and social impacts, issues and risks for current approach on plastic litter management. Potential subprojects that may be

supported by the block grants are also listed. The listing is not exhaustive and may include other innovations to be proposed by grant recipient across the region.

Analysis of Potential Environmental and Social Impacts, Risks

Current Approach to Manage Plastics	Anticipated Environmental and Social Impact, Risks
Prevention	
• Avoidance by new material, new product design (change in production or process) • Reuse	• Potential generation of other waste streams associated with new process or materials (i.e., more water and chemical usage in production of glass bottles than PET); • With the change of process and/or raw material, there may be a need to re-design existing wastewater treatment facilities to address new waste water characteristics or a totally new wastewater system will be needed; • Consequently, with the new process/products used, there might be a need to re-design existing air emission controls or additional treatment facilities may be required; • Workers safety.
Mitigation	
• Recycling technologies (same or new products) • Recovery of plastics • Waste to energy • Better storage, collection and transport • Better thrash trap design installed in waterways • Better design landfills	• Increase in water consumption for cleaning; • Generation of wastewater; • Potential release of micro-plastics and toxic chemicals (i.e., for plastic e-wastes) and fumes; • Generation of solid residues (non-recyclable components) which may need disposal or incineration; • Potential impact of constructing new facilities, and or installation of additional equipment; • Community safety; • Workers safety, including waste pickers and volunteers in clean up operations.
Cleanup	
• Beach and river bank cleanup • Garbage traps • Waste tracking	• Transportation/hauling issues for the recovered wastes; • Need of processing or recycling facilities; • Disposal for recovered plastic which are not recyclables; • Safety of workers/partners/volunteers/waste pickers; • Exposure to sewage-contaminated waste during cleanup.

<u>E&S Risk and Impacts from Subprojects to be Supported by the Technical Assistance</u>

xvii. All subprojects supported by the grants would require an **Enabling Environment**, such as in the form of policy and financing scheme, to make them happen. In most of these strategies, government, business entities, and individual consumers must take their respective roles. Such activities will be supported by the project through the TA.

xviii. The environmental and social risks and impacts from such activities will be minimal. However, screening must still be conducted to ensure that such policies, schemes or regulations proposed across the region will be consistent with WB ESS and will not violate existing national laws and regulations.

E&S RISK MANAGEMENT

xix. The identified sub-projects (TA and block grants) will be screened and will be assessed based on the type and scale of the project, its location, and the nature and magnitude of the potential environmental and social impacts.

Managing Risks According to Applicable ESS

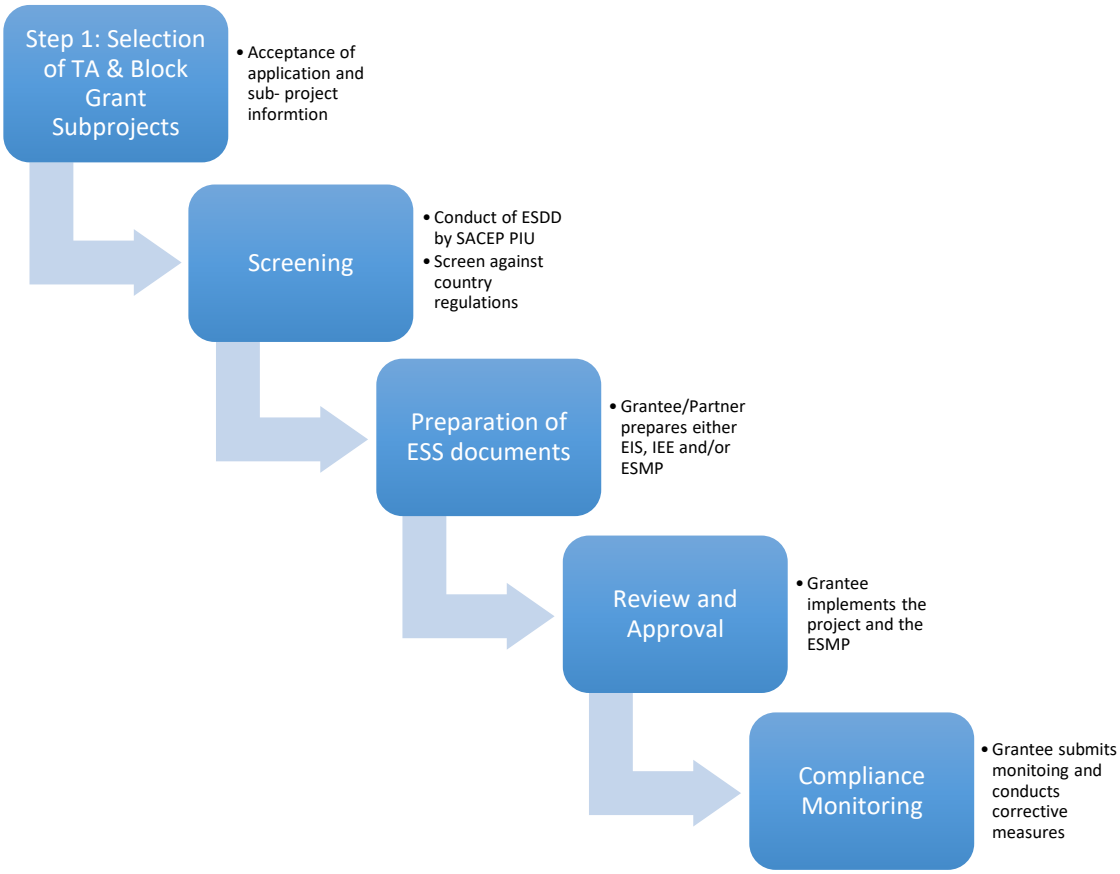
ESS		Managing Risks
ESS1	Assessment & Management of Environmental and Social Impact	• Conduct of Environmental and Social Assessment (ESA) • Preparation of an Environmental and Social Management Framework (ESMF) • Environmental and social screening of subprojects • Application of positive and negative list of subprojects • Preparation of environmental and social diligence (ESDD) for subprojects • Preparation of sub-project specific Environmental and Social Management Plan (ESMP) • Preparation of e-Waste Management Plan • Submission of subproject specific Environmental Compliance Monitoring Plan • Corrective Action Plans
ESS2	Labor and Working Conditions	• Preparation of SACEP Labor Management Procedures • Requirement of Occupational and Health and Safety Plan from subprojects/grants • Preparation of GRM for labor related issues. • Codes of Conduct against GBV and SEA for SACEP and contractor (for SACEP HQ construction)
ESS3	Resource Efficiency, Pollution Prevention and Management	• Requirement of ESMP for subprojects/grants • Water & energy audits and GHG inventory report during project implementation for block grant recipients
ESS4	Community Health & Safety	• Preparation of Communication Plan, Stakeholders Engagement Plan and ESMP for subprojects • Codes of Conduct against GBV and SEA for SACEP and block grant recipients
ESS5	Land Acquisition	• E&S screening • Preparation of environmental and social diligence (ESDD) for subprojects
ESS6	Biodiversity Conservation and Sustainable Management of Resources	• E&S Screening • Preparation of environmental and social diligence (ESDD) for subprojects • Preparation of ESMP
ESS10	Stakeholder Engagement and Information Disclosure	• Preparation of Communication Plan, and Stakeholders Engagement Plan for subprojects • Grievance Redress Mechanism

E&S IMPLEMENTATION ARRANGEMENT

xx. The ESMF provides guidance on environmental and social risk management and the associated project development procedures to ensure that the sub-projects are sustainable. This guidance serves to ensure that potential impacts and practical mitigation measures are identified early on in the planning and selection process for this project. The next figure shows the proposed Project Environmental and Social Risks Assessment Process.

xxi. SACEP will implement the ESMF while the Recipients of the block grants will ensure adherence of their subprojects to the ESMF requirements. SACEP will be beefed up by the hiring of an Environmental and Social Specialist and a Stakeholder Engagement Specialist to screen, review, supervise and monitor implementation of the subprojects while also mobilizing the National Focal Point in each country, which is the Ministry of Environment, to monitor implementation of subprojects. Trainings and capacity building on ESF and implementation of various instruments will also be provided and supported by the project.

Environmental and Social Risk Assessment Process



1. PROJECT INTRODUCTION

1.1 Regional, Sectoral and Institutional Contexts

1. While economic growth across the South Asia Region (SAR) accelerates, sustainable management of its environment and natural resource base is critical for sustainable growth. SAR is the fastest growing region in the world, with an average GDP growth rate of 7.2 percent over the past decade. At the same time, being home to over 1.92 billion people (one fourth of the world's population), SAR is not only the most populous, but also the most densely populated geographical region in the world at 299 people per square kilometer. The population growth rate in the region is also accelerating at 1.27percent per annum in 2016.

2. Strong economic growth, coupled with rapid population growth and increasing population density, has been putting pressure on the region's environment and natural resources (marine and coastal habitats, freshwater sources, forests, fisheries, and wildlife). These ecological systems or natural assets, which are transboundary in nature, backstop economic systems: they provide valuable economic and other benefits and services. Their degradation and overuse, however, jeopardize hard-fought development gains, and affect livelihoods, especially of the poor.

3. Regional cooperation across SAR, particularly on environmental issues affecting all eight nations in the region could generate positive development outcomes. While it is generally recognized that cooperation across countries offer substantial benefits, the political economy of regional cooperation in SAR is complex with a variety of influencers at the national and sub-national levels in each country. Regional organizations exist, but they face limitations in development effectiveness. However, while there are dozens of regional organizations established with varying mandates, The South Asia Cooperative Environment Programme (SACEP), a regional organization based in Colombo, Sri Lanka has proved since its inception in the 1980's by all eight SAR nations that it can convene member-states on environmental issues and over the past few years in particular make meaningful progress on waste management more generally, and marine debris and marine plastic pollution more specifically. SACEP, for example, led member-states in the preparation of a Regional Marine Litter Action Plan (2018). This was followed by each SAR nation, with support from SACEP, initiating the preparation of national action plans to reduce marine debris. While a small step to addressing a massive problem, it has been a timely and important one – this work has aided declarations by SAR nations at the G7, G20, APEC and UN to address marine plastic pollution.

4. The menace of plastic waste that pollutes land, flows into river systems and, ultimately into oceans, poses national, regional, and global threats to development**.** The qualities that make plastic useful—lightness, durability, strength, versatility and low production costs—have resulted in fast growing demand, but mismanaged plastic waste has also created a mounting pollution crisis, eroding ecological systems like rivers and oceans. The global production of plastic is currently estimated to be around 300 million tons per year, while plastic pollution in the marine environment alone (including beaches) estimated at 9.5 million tons with 1.5 million tons ending up in the ocean annually. The impact of marine plastic pollution has far-reaching economic, ecological and health impacts, including on planetary health. The annual global damage of plastics to marine ecosystems in particular is estimated at US$13 billion per year. As a result, marine plastic waste has been acknowledged as one of the main global environmental challenges in recent years and the movement to combat marine plastic litter accelerated in 2019 and is poised to become a feature of many national development plans over this new decade.

5. Greenhouse gas (GHG) emissions and air pollution is linked to the generation of plastics, either through oil extraction and refineries or plastic manufacturing, improper solid waste management practices and measures – particularly from single use plastics and waste packaging materials. After a short first-use cycle, 95 percent of plastic packaging material value, or US$80–120 billion annually, is lost to the global economy; 32 percent of plastic packaging escapes collection systems, generating significant economic costs by reducing the productivity of vital natural systems such as the ocean and clogging urban infrastructure such as drainage and leading to flooding during period of high rainfall. The cost of such after-use externalities for plastic packaging, plus the cost associated with greenhouse gas emissions from its production, is conservatively estimated by independent experts in "The New Plastic Economy: Rethinking the Future of Plastics" at US$40 billion annually – exceeding the plastic packaging industry's profit pool. However, such data and analytics remain largely absent in national decision-making.

6. The South Asia Region is the third largest contributor to plastic waste globally with an estimated doubling by 2050 unless action is taken. The Maldives aside, all South Asia's coastal nations are among the top twenty most polluting nations ranked by the volume of mismanaged plastic waste with Sri Lanka ranked among the top six according to published studies. Modelled estimates of floating micro-plastic (<4.75 mm) and macro-plastic (>4.75 mm) abundance (items per square kilometer) suggest that the Bay of Bengal Large Marine Ecosystem, the ocean system that touches South Asian ocean-facing nations, is in a category of ocean regions with the highest plastic concentration. The Indian Ocean is also host to one of the world's largest plastic gyers due to the flow of plastic from land to sea. While twenty percent of the estimated plastic waste found in the marine environment originate from sea-based activities, plastic waste "leakage" from high mountain states in the upper river watersheds travel via transboundary river systems such as the Indus, Ganga and Brahmaputra and contribute to accumulation downstream and eventually in the region's seas. Following current trends, the amount of mismanaged waste (including plastic) across South Asia is projected to rise from 334 million tons per year in 2016 to 661 million tons by 2050. This will adversely impact the region's ocean ecosystems and sustainable development more broadly. In addition, Pakistan, along with Thailand, Vietnam and the Philippines have become the new destinations for plastic waste exports from developed countries as nations like China and Malaysia stopped the practice, in part due to the vast pollution caused and overall cost imposed, outweighing benefits. Accepting these waste streams from other nations while initially beneficial due to payouts received, have many longer-term negative implications not factored into these transactions and require further examination.

7. India dominates the region in plastic manufacturing and processing capacity, estimated at over 20 million tons per year by 2020. The industry includes 15 large polymer suppliers, about 200 equipment manufacturers, and over 30,000 more specialized micro- small, and medium sized plastic packaging processing units employing 3 million people. India is becoming a key market worldwide for plastics processing and polymer conversion with exports to the United States, UAE, Germany, China and Bangladesh. Other SAR countries have downstream plastics production primarily by micro-, small, and medium sized plastics processing units. Enterprises producing plastic bottles for water distribution are even found in small non-industrial countries like the Maldives. In 2019, India banned the import of solid plastic waste by amending the Hazardous Waste Rules leaving waste plastic from China, South Korea, United States, Thailand and Japan seeking new nations willing to take their waste.

8. There is growing global and regional recognition and call to reduce ocean plastic pollution. World leaders, including representatives from SAR within the G7, G20, APEC, IORA, SACEP and the UN, have agreed to reduce plastic waste, and signed agreements supporting greater cooperation across nations. The 2018 G7 Summit in Canada concluded with a *G7 Ocean Plastic Charter*; the June 2019 G20 Osaka Summit in Japan concluded with an agreement to

establish the *G20 Implementation Framework for Actions on Marine Plastic Litter* to facilitate, through voluntary national actions, the *G20 Action Plan on Marine Litter* launched at the 2017 G20 Hamburg Summit. G20 leaders also announced the *Osaka Blue Ocean Vision*, which aims to eliminate additional marine plastic pollution by 2050. The APEC Summit in June 2018 concluded with its 15 member-states endorsing the preparation of an APEC Marine Debris and Action Plan. The SACEP ministerial level Governing Council has endorsed a Regional Marine Litter Action Plan for the South Asia Seas, and all SAR countries will deepen early stage draft country specific action plans.

9. Several South Asian nations are pioneers in single use plastics bans. However, these bans are largely ineffective. According to the UN, about 127 countries (of 192 reviewed) have adopted some form of legislation to regulate single use plastic bags, ranging from outright bans to progressive phase outs to laws that incentivize the use of reusable bags. Over 5 trillion plastic bags are produced per year and take an estimated 1,000 years to decompose. SAR has many such examples. Sikkim introduced a ban on plastic bags as early as 1998, and Bangladesh in 2002 was the first country in the world to introduce a ban or national restriction on single use plastic bags, followed by India (initiated in 2002, starting with New Delhi), Bhutan (2005, renewed with greater enforcement in 2019), Afghanistan and Nepal (2011), Sri Lanka (2011), and Pakistan (2013 municipal level ban). Maldives introduced a ban on single use plastic bags on *Bodufolhudoo* island in 2016, and established a national steering committee in 2019, mandated to advance the phase out of single use plastics by 2020. While such policy instruments have had initial positive response in many countries, due to a lack of enforcement, a failure to regulate plastic through its life cycle, too many exemptions, too few manufacturer limits, an absence of cost-effective alternatives, and growing but fragmented effort on public education and behavior change, these policy initiatives have not yet produced the desired results – a decrease in the use of single use plastics.

10. Despite the challenges, there are many promising initiatives that regional cooperation could help better recognize, share, and replicate to reduce the stock and flow of plastic waste. India leads the region on enactment of Extended Producer Responsibility (EPR) laws starting in 2016, a policy approach where producers must be responsible for the clean-up or recycling of their products. EPR encompasses management of the potential impacts of a product in all stages of production, use, collection, re-use, recycling, reprocessing, and disposal. In the small island state of Maldives, the public, private, and civil society such as youth have joined forces to collect plastics for corporations such as Adidas. Adidas in turn produces apparel branded “Parley for the Oceans” and formally kits out major professional sports teams such as FC Bayern Munich, Real Madrid and Manchester United FC, thereby creating a highly visible public awareness campaign in addition to helping solve the marine plastic pollution problem. Revenue generated from sales are in part used to fund formal and informal youth environmental education programs via Parley Ocean Schools and further clean-up efforts in Maldives and around the world. There is further scope to extend such plastic clean-up programs linked to commercial value chains across SAR. EPR in India and the work of Parley in Maldives are two of many emerging examples of a circular economy approach, which looks to prevent depletion of finite natural resources from the global economy, and instead better use the natural resources we’ve already extracted to extend their useful lives. The proposed regional IDA project will support and promote a circular economy approach to plastics for South Asia.

11. Minimizing the use of plastics across company supply chains and better understanding the flow of plastic waste and the full extent of its externalities are key to reducing plastic waste. While supply chain challenges for recycled plastics to meet processing volume requirements and international ESG standards remains a challenge, over 30 companies have joined hands to form the Alliance to End Plastic Waste (AEPW), pledging $1 billion of investment over five years (with a focus on Asia) to help end plastic waste in the environment, particularly the

world's oceans. International NGOs such as National Geographic have assembled an independent coalition of scientists who are mapping plastic flows along the Ganges River Basin throughout 2019-2020. At national levels, as lead up to the G20, India announced a National Mission on Plastics and in the Maldives, a historic youth-driven resolution to ban single use plastics was approved by parliament on July 4, 2019. At the grassroots level, entrepreneurs and new social enterprises are emerging with promising business models to help raise living standards of plastic waste "rag picker" workers; deploy low cost waste sorting equipment to process high organic co-mingled waste containing all forms of plastics; and, transform solid plastic waste back to usable and reusable liquid oils, among others.

1.2 Project Development Objective

12. The Project development objective is to catalyze actions that reduce the flow of plastic pollution into South Asian Seas. To achieve this, proposed PDO-level objectives include the following:

- Reduction of stock and flow of plastic pollution intercepted and/or recovered;
- Increased investment in 3R and/or AIR;
- Increased consumer demand for circular products;
- Increased access to regional data and analytics for plastic pollution abatement decision making;
- Regional plastic pollution mitigation guidelines incorporated into national standards; and
- Institutional capacities strengthened to undertake single use plastic informed policy bans, EPR and planning.

13. The project targets a long-term goal of eliminating leakage of plastics into the marine environment across the SAR, which can only be achieved beyond the life of the project. The project seeks to catalyze transitions across the region toward a circular economy. This means identifying and reducing negative externalities of select plastic waste streams through adoption of a 3R approach (reuse, reduce, recycle) and the successful AIR approach of avoid, intercept, redesign adopted by corporations such as Adidas, American Express, etc. Project implementation will focus on catalyzing actions to reduce the flow of plastic pollution into rivers that empty into the marine environment. This will require: (i) well-specified and enabling policies, incentives, education, behavioral change at the producer and consumer levels; (ii) bottom-up, community and citizen-led action in addition to more top-down regional level engagement; and (iii) public and private sector investments to support circular economy transitions.

1.3 Purpose and Scope of the ESMF

14. The **Environmental and Social Management Framework (ESMF)** provides general policies, guidelines, codes of practice and procedures for the project – Plastic-Free Rivers and Seas for South Asia. This ESMF is developed to ensure the consistency of the project with the World Bank Environmental and Social Standards (ESS), WBG environmental health and safety guidelines (EHSGs), UN environmental, social and economic sustainability framework, SDGs, and applicable environmental rules and regulations of the governments of the SAR countries.

15. More specifically, the ESMF is an instrument that examines the risks and impacts of this project which will later consist of several subprojects (implemented by the partners and grantees), whose risks and impacts cannot be determined until the details have been identified. The ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts according to the WB ESS and the SAR countries

respective environmental regulatory frameworks. It contains measures and plans to reduce, mitigate and/or offset adverse risks and impacts, provisions for estimating and budgeting the costs of such measures, and information on the agency or agencies responsible for addressing project risks and impacts, including on its capacity to manage environmental and social risks and impacts; and the procedures for disclosure and grievance redress.

16. This ESMF will provide SACEP guidance on how to:

a) Screen all project activities (**technical assistance** – policy formulation, development of standards, guidelines, capacity building, etc.; **block grants** - innovative 3R technologies or AIR; plastics collection methods, etc.) for environmental and social risks;

b) Assess the downstream risks and impacts of enabling policies, standards, guidelines, etc. on 3Rs of plastics (reduce, reuse, and recycle);

c) Screen all available 3R technologies and assess their environmental and social risks and impacts with the intention of screening out and putting in the negative list non-environment-friendly and unsustainable technologies;

d) Assess the environmental and social risks and impacts of different methods of collecting, and hauling/transporting plastics to their final destinations of reuse and recycling;

e) Assess the risks and impacts (both positive and negative) of the aforementioned technologies and activities on disadvantaged or vulnerable individuals or groups in the sub-regions and/or countries considered likely for inclusion in the project;

f) Carry out Gender Based Violence (GBV) risk assessment focused on activities that will involve civil works and ensure implementation of measures to address GBV and sexual exploitation and abuse (SEA) risks and impacts that may arise during project implementation; and,

g) Develop measures to manage risks and impacts of eligible 3R technologies including disclosure and grievance redress.

2. DESCRIPTION OF THE PROJECT

2.1 Project Components

17. The Plastic free Rivers and Seas for South Asia (PRS) project consists of four main components totaling US$40 million from IDA that will be implemented over a period of five years.

2.1.1 Component 1: Regional Competitive Block Grants to Reduce Plastic Waste

18. The objective of this component is to identify, verify and scale plastic pollution mitigation solutions that would be made available as a regional and global public good. To this end, the project will develop, administer and support a first of its kind SAR regional competitive grants program that would reduce plastic pollution and provide a demonstration effect for SAR nations on what is possible. Most public investment across SAR (outside of the policy realm) has focused mainly on funding beach clean-up activities. This is despite a wide range of organized activities and enterprises doing much more to address plastic pollution. With IDA support, the project would establish a regional scheme that identifies and funds transferable, replicable and scalable solutions and innovations that measurably reduces the stock of plastic pollution and its flow into South Asia's rivers and seas. The project would also support an ICT platform that transparently showcases grantees, monitors progress and enables them to share knowledge and know-how across geographies. Grantees that meet specific performance benchmarks would be invited to meet in person and with project convened donor-partners, including the private sector to consider providing additional support to Grantees and/or the scheme itself to scale it up. Over the course of project implementation, donor-partners would be invited to pool their funds into a new vehicle designed with support from IDA to ensure sustainability of this activity and others that support the region transition toward plastic free rivers and seas. The component is supported by three subcomponents:

19. **Sub-component 1.1: Competition:** The objective of this subcomponent is to support the detailed design, management, and administration of the regional competition. The competitive grants platform will identify and scale-up projects, social enterprises and initiatives that reduce the stock and flow of plastic pollution and that without this support would not be possible.

20. The regional competition would seek proposals from social innovators, entrepreneurs, students, designers, businesses, materials makers and change makers or collaboratives – any group of individuals or institutions that have innovative and creative ideas and/or solutions for turning the tide on plastic pollution. The grants, ranging from [$250,000 to $1,000,000] would support both new approaches and the transfer or adaptation of existing and/or proven approaches to new contexts and or geographies. It would also support existing approaches that with grant capital could reduce constraints and thereby unlock and/or stimulate demonstrable impact and scaled results. It is estimated that approximately 32 grantees from eligible countries would be selected over the duration of the project.

21. **Sub-component 1.2: Grantee Knowledge Exchange and ICT Platform.** The objective of this sub-component is to support information sharing, knowledge exchange and further scale activities of grant winners with support from partners. The project would do this in two ways, by creating an ICT platform (with website) to showcase grantees, exchange knowledge and to obtain acceleration funding from different sources. The foundation of the knowledge exchange activity would be to create an ICT platform that will showcase winners of the grants, provide a way for winner to interact with another (virtually and face to face) and allow for online monitoring and tracking, in addition to crowding-in additional sources of funding to grantees

from external sources. The project would therefore support the design, build and administration of the ICT Platform.

22. **Sub-component 1.3: SACEP Sustainability Fund.** The objective of this sub-component is to create a donor-advised pooled fund to support the SAR region to accelerate toward the region's long-term goal of eliminating "leakage" on plastic into rivers and seas with sources of funding beyond IDA. This component would support SACEP in developing such a fund structure, including its governance, invite potential donor-partners and equip SACEP to manage such a fund, devoted to future regional projects tackling plastics in the rivers and oceans and building on this regional IDA operation.

2.1.2 Component 2: Leveraging Private Sector Engagement and Solutions

23. The proposed objective of this component is to establish a solutions-oriented ***South Asia Regional PPP Mechanism*** to: (i) forge action-oriented collaboration between public and private sector institutions; (ii) serve as a platform for consultation between public and private sector on existing and new national and/or subnational policies that address plastic pollution, waste and leakage across the value chain; (iii) identify and incentivize private sector led solutions; (iv) leverage capital (public and private) and incentivize the deployment of that capital to accelerate solutions; and, (v) facilitate knowledge transfer. IDA would support the design and operationalization of this mechanism, including the participation costs for public officials formulating and enforcing legislation.

24. The rationale for such a component is that the private sector plays a significant role in the production and use of plastics that "leak" into rivers and oceans and therefore must be a core stakeholder in the formulation and implementation of public-sector policy and associated actions. Moreover, consumers are beginning to hold companies accountable, opening them up to collaboration with private foundations and governments, while seeking market-based solutions. However, in order for public and private sectors to convene, dialogue, identify and deploy knowledge and solutions for South Asia, a collaborative and supportive convening mechanism is required that could also serve as a marketplace for exchange of ideas and that brokers solutions. Such platforms have been considered effective by organizations such as the International Finance Corporation (IFC).

25. This component would be supported by the following proposed activities: (2.1) design of the regional mechanism (including, operations manual) and branded platform, (2.2) support for annual convenings of public sector policy and decision makers with private sector representatives, including the sharing of PPP solutions from within the region and beyond; (2.3) support for a research agenda that would identify sticking points in policy and its implementation (i.e., single use plastic ban) and identify workable and effective solutions; (2.4) informational website, and (2.5) operational support. The regional PPP mechanism would be branded to further accelerate awareness and exemplify regional cooperation in support of plastic free rivers and seas and could adopt a fee for private sector participation (a successful model used in trade shows, convening on other topics, etc.) to ensure the long-term sustainability of such a platform that SACEP would continue to oversee beyond the life of the project.

2.1.3 Component 3: Promoting Educational Partnerships, Awareness, and Behavioral Change

26. The objective of this proposed component is to promote education, increase awareness and stimulate behavioral change of citizens across SAR. IDA support would forge educational partnerships targeting young people and public awareness campaigns. The rationale for this component is that the plastics waste problem cannot be solved without changing mindsets,

particularly society's dependence on single use plastics. Public awareness of the issue (and solutions) and large-scale, grass-roots action that gets to the core of consumers' daily life needs and affinity for low-cost plastic and the convenience it affords is a key change element. While localized public awareness campaigns are ad-hoc and temporary, there is also need for more long-term, systematic, and regionally reinforcing communication messaging within a wider regional and inter-connected context. Partnerships are key to accelerate change. This component would therefore support educational partnerships, public awareness campaigns, education, and communications support.

27. **Sub-Component 3.1: Support for Educational Partnerships.** The project would (a) map and forge educational partnerships that would tap region-wide educational content with partners who have presence across the region and distribution channels (TV, radio) with wide reach; (b) map and develop partnerships with partners that have a proven track record of success in particular nations and support their expansion to other suitable geographies. This could include, for example, support collaborative partnership with Discover Channel or National Geographic to reach millions across the region through their platforms and to expand Parley for the Ocean's Ocean School to Sri Lanka.

28. **Sub-Component 3.2: Public Awareness Campaigns, Regional and National**. The project would support (a) the design and roll out of a regional public awareness campaigns using innovative approaches including art, plays and other modalities considered effective to reach various audiences; (b) innovative and targeted grass-roots and national campaigns (radio, TV, youth-led, etc.) to promote awareness of the problem and local solutions.

29. **Sub-Component 3.3: Educational Curriculum Development and Deployment.** The project would support (a) design and deployment of new and/or existing educational materials targeting students; (b) the development of edu-tech games (via hackathons or other suitable youth-focused effort) to mobilize young people to create youth-inspiring content.

30. **Sub-Component 3.4: Communication Support.** The project would support development of communication strategies for SACEP and all members of its governance and plans of action to enact change within public sector institutions on the use of single use plastics, micro-plastics, etc.

2.1.4 Component 4: Strengthening Regional Integration and Project Management

31. The proposed objective of this component would be to support regional coordination, cooperation, institutions and policy development that deliver both short and long-term solutions. The project would support the following four subcomponents:

32. **Sub-Component 4.1: Improved Policies**. Global assessments conclude that public policies often fail for reasons ranging from a failure to regulate plastic through its life cycle to an absence of cost-effective alternatives to promote. The project will therefore review existing policies and standards from across the region (and assess why they succeed and fail), identify good practice policies from both within and outside the region, develop a set of recommendations specific to each SAR nation that with revision could improve public policy and standards, identify incentive and fiscal mechanisms to help correct market inefficiencies, overcome poor incentives to recycle plastics or to explore alternatives, and facilitate investments which provide solutions. Harmonization of standards for recycled material in products would also be reviewed to promote greater market aggregation and uptake for more circular products.

33. **Sub-Component 4.2: Better Coordination of Regional Organizations**. There are a few Regional Organizations (with either all or a sub-set of SAR nations as member-states) with

complementary mandates that with a mechanism to enable coordination among them and to undertake activities for which each has a comparative advantage, could help accelerate the project in meeting its objectives and assist the region toward plastic free rivers and seas. The project would support the establishment of an ***Inter-Regional Organization Dialogue Committee (IRODC)*****.** IRODC will be established to facilitate partnership amongst regional organizations (ROs) with existing mandates to assist SAR member-states in mitigating against plastic pollution. It will consist of leadership from ROs with such mandates. While initially the IRODC will consist of SACEP Secretariat and IORA Secretariat leadership (i.e. Director General of SACEP and Secretary General of IORA) as per an MOU between their respective organizations, it is envisaged to expand its membership over time to include other ROs (such as SAARC) and others as needed. The IRODC would enable coordination, data sharing and aggregation, sharing and dissemination of studies and solutions that reduce plastic pollution that flows into rivers and seas. The component would also support member ROs with activities that could accelerate the project in meeting its objectives. Given its mandate to convene at the highest levels of government (Head of State level), whereas SACEP's mandate enables convenings of the Ministers of Environment, the project would provide IORA with support to (a) convene Heads of State and Foreign Affairs Ministers on the topic of plastic pollution, causes, consequences and solutions, (b) undertake a research agenda that specifically reviews and aggregates good practice from outside SAR and brings those findings to SAR, and (c) build its capacity in this regard.

34. **Sub-Component 4.3: Regional Data Collection and Monitoring.** Uniform collection, analysis and interpretation of marine plastic pollution data is necessary at both the regional and national levels to inform policy. Currently no such standard methodology exists, nor is data being collected, analyzed, interpreted and shared to support better decision-making. The project will support the design, development and operationalization of a regional database. This database would enable SAR nations to collect basic data across the plastic supply chain using a standard template and have it analyzed with support from the project using a standard methodology, also development by the project. It would offer uniformity of collection, interpretation and comparison for all SAR nations and be made available to all SACEP member-states. The rationale for this activity is that data on the quantities, trends, sources and sinks of marine litter across SAR is not collected and therefore not available; very little is known about the extent and nature of the plastic pollution problem in the region, outside some macro-level studies. Moreover, the potential physical and chemical impact of plastic pollution on marine life is scare, although global institutions are beginning to collect it from research institutions. Overall, SAR nations face knowledge gaps in terms of the biological consequences of marine litter and micro- plastics. These gaps hinder the ability to prioritize mitigation efforts and to assess the effectiveness of implementation measures. Accurate data is essential for large-scale and long-term monitoring across SAR.

35. **Sub-Component 4.4: Project Management Office at SACEP.** A first of its kind regional project with SACEP, a first-time recipient of IDA and previously unfamiliar with the rules and regulations governing IDA resources, requires a special approach to project management. The optimum arrangement balances a need for efficiency and skills to work with a wide network of partners with care to limit the project management capacity burden on the regional institution to functions like coordination, convening, and monitoring and evaluation that need to be stronger for the longer term and will require strengthening SACEP as an institution. To address capacity constraints within SACEP, the project will invest in building SACEP's capacity to strengthen SACEP as an institution for the medium term across all core functions, and, ensure it can effectively manage an IDA operation of this size. This includes dedicated support to upgrade systems to ensure transparent and effective fiduciary management, procurement, budgeting, accounting, and reporting. The project will also significantly invest in developing a best of class Project Implementing Unit (PIU). The PIU is envisaged to be led by a highly competent Director, a well-known (globally and regionally recognized) thought

leader and manager, who would be supported by dedicated technical and support staff across all key functions in a separate floor of SACEP's new headquarters

2.2 Type of Potential Activities and 3R Technologies

36. An illustrative positive list and a strict negative list would be developed to ensure alignment with the use of IDA grant proceeds and project development objectives, including compliance with WB ESS. Grants would target change at local, national and/or regional levels, while being rooted in one of the following areas (non-exhaustive):

- Reducing the consumption of single use plastic products with viable and sustainable alternatives;
- Reducing, recycling, reusing, and/or upcycling existing accumulated plastic waste;
- Changing consumer behaviors, or retail and wider business practices;
- Implementing alternative business models and optimizing supply chains;
- Introducing new materials fit for a circular economy or that offer sustainable alternatives to fossil fuel-based and non-recyclable plastics (i.e. plastic sachets);
- Adopting, customizing and implementing Parley A.I.R. strategy: Avoid (reduce and replace), Intercept (retrieve and recycle) and Redesign (create new materials and new industry standards) successfully rolled out in Maldives with Adidas and other corporates;
- Clean-up, collection and removal of plastic waste from rivers and seas, including before it enters (or reenters) the sea (i.e. beach and river bank clean ups), among other things;
- Design, manufacturing, supply chain and other innovations that serve to reduce plastics utilization and/or enhance plastics recovery, recycling and re-use;
- Design and manufacturing of truly biodegradable substitutes for plastics, including single use plastic sachets;
- Material innovations, including design of recyclable plastic resins that can replace non-recyclable resins in similar products;
- Introduction of plastics waste collection, recycling and re-use programs in municipalities including mechanisms for full cost recovery (i.e., similar to container deposit laws);
- Financial, policy, regulatory or other incentives that minimize loss of fishing nets and optimize their recovery for re-use or recycling; and
- Innovative economic, policy, regulatory and other measures/incentives to minimize or eliminate use of unnecessary single use plastic items and ensure better enforcement of such bans.

37. Special areas of emphasis of particular interest to IDA (with dedicated support provided) include:

- Grant proposals that catalyze action along rivers (including transboundary hot spots) and hot spots at sea, including international waters;
- Grant proposals that explicitly support female-led social enterprises; NGOs and CSOs that working with bottom of the pyramid female waste pickers who would directly benefit from grant proceeds; and,
- Grant proposals by regional organizations that could accelerate and/or deepen regional cooperation and/or integration.

2.3 Project Implementing Agency

38. The South Asia Cooperative Environment Programme (SACEP) is proposed as the responsible implementing agency for this project. SACEP is an inter-governmental organization established by Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka in 1982 to promote and support protection, management and enhancement of the environment in the region. SACEP's core program and project activities include waste management, incuding plastics and climate change adptation. In addition, SACEP serves as the secretariat of the South Asian Seas Programme (SASP), one of 18 such United Nations sponsored Environment Programs. SASP administers the Action Plan for the Protection and Management of the Marine and Coastal Environment of the South Asian Seas Region which includes, as one of its four key focus areas, the environmental effects of land-based activities. In 2007 SACEP adopted the Framework on Marine Litter Management in SAS Region and is the only regional organization, based in the region, that is actively engaged with issues relating to waste management and plastic debris. SASP specifically covers the seas relevant to South Asia and this proposed regional project.

39. The regional project would strengthen SACEP to administer relevant project activities via the following insutitonal structure, which includes a Minisiterial Level Governing Council, Consultative Committee, National Focal Points, Subject Area Focal Points, and a Colombo-based Secretatiat. **The Governing Council** is the principal review and deliberative body of SACEP and is responsible for determining its policies and programs. It consists of one representative from each member state who will be of Ministerial portfolio and as per Articles of Association, should meet annually. **The Consultative Committee** is responsible for facilitating the implementation of policies, strategies and programs approved by the GC and provides guidance to the Secretariat in its activities. It consists of representatives of diplomatic missions of the member states residing in Colombo. **The Secretariat,** based in Colombo, consists of a Director General that rotates between member-states and professional, administrative and support staff. SACEP Secretariat would host the Project Implementation Unit (PIU) for the project.

40. **Roles and Responsibilities.** At the regional level, SACEP as the PIU will play an important technical coordination role among member-states, provide technical input into terms of references and other activities that would then put out to bid (major regional studies, public awareness campaigns, competitive 3R grants, regional convenings on plastic policy, knowledge transfer, etc) and provide technical oversight to these project activities. SACEP would undertake discrete activities for which it has a mandate. SACEP will also ensure that the ESF will be implemented and that all TAs and block grants will be consistent with the WB ESS and will meet WBG Environmental Health and Safety Guidelines.

41. **National Focal Points** have been designated by each member state from their environment ministries which function as the main communication link between the Secretariat and the respective member-state. For this project, the NFPs are expected to implement and monitor national-level programs which will be initiated by this project in cooperation with the Secretariat. These programs and activities, which will include several TAs and call for block grants that will be participated by several organizations within SAR member countries, will be promoted, monitored, assessed and reported by the NFPs. The NFPs shall also ensure that all TAs and block grant recipients will comply and adhere to national environmental and social policies and regulations. SACEP may seek assistance of the NFPs in approving and monitoring relevant environmental safeguards documents such as ESIA, IEE or specific environmental and social management plans (ESMPs).

42. **Local Recipients.** Grantees of the block grants will implement specific activities and projects approved by SACEP and will be responsible in reporting the status of project implmentation

including status of environmental and social management compliance to SACEP. Grantees and recipients of TAs will be oriented with the project's environmental and social requirements including WB's ESS, the ESF, and existing regional and national environmental and social commitments and regulations. It is the grantees' and TA implementers' responsibility to implement, monitor and report compliance with the agreed and approved ESMPs.

3. LEGAL, POLICY FRAMEWORK AND REGULATORY REQUIREMENT

3.1 Global and Regional Sustainability Framework and Agreements

43. The application of policy and planning principles such as Waste Hierarchy, Sound Material Cycle Society and Circular Economy into the sustainable waste and resource management in South Asia can also bring various social, economic and environmental benefits. The sustainable waste and resource management can contribute to achieving many of the targets of the Agenda 2030 Sustainable Development Goals (SDGs). It has strong linkages to a range of global challenges such as health, climate change, poverty reduction, food and resource security and sustainable production and consumption. The political case for action is significantly strengthened when waste management is viewed as an entry point to address a range of such sustainable development issues, many of which are difficult to tackle alone. Thus, a strong argument can be made for the strategic importance of improving waste management, insofar as actions here will contribute to progress towards a range of SDG targets. Setting and monitoring global targets for waste management will thus contribute significantly to attaining the SDGs.

44. In addition to the above global agreements - Sustainable Development Goals (SDGs) and the Paris Climate Agreement signed by the countries in South Asia in 2015 - a greater action on sustainable waste and resource management in South Asia is an important cross-cutting thematic area of most of multilateral environmental agreements. Some of them are:

- Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal;
- Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;
- Stockholm Convention on Persistent Organic Pollutants;
- Vienna Convention for the Protection of the Ozone Layer;
- Montreal Protocol of the Vienna Convention;
- International Conference on Chemicals Management;
- Strategic Approach to International Chemicals Management (SAICM); and
- Minamata Convention on Mercury.

45. The urgency of addressing the sustainable waste and resource management in the South Asia is also discussed among the countries in its regional co-operation frameworks and in align with other pressing regional concerns such as environmental degradation, food safety, power generation, poverty alleviation and trans-boundary technology transfer. Some of key regional activities are:

- The Dhaka Declaration on Waste Management of 2004, which recognizes the environment imperative to promote more effective waste management systems ‘with special attention to addressing the needs of the poor’;
- SAARC action plan on Climate Change of 2008, which listed waste management as one of the prioruty areas for nationally appropriate mitigation actions where regiobal sharing of best practices can be useful;
- The 2010 convention on co-operation on the environment also included waste management among a list of 19 areas for the exchange of best practices and knowledge, and transfer of eco-friendly technology;
- The summary statement of the South Asia Sustainable Consumption and Production Forum in 2016 has also acknowledged the importance of achieving SCP in the region

and recommended SACEP Governing Council to provide continues support and guidance;

- Since the launch of the Regional 3R Forum in Asia and the Pacific in 2009, policy issues and priorities on sustainable waste and resource management have been widely discussed among member countries and agreed on some declarations such as Hanoi 3R Declaration – _Sustainable 3R Goals in 2013 and Indore 3R Declaration of Asian Mayors in 2018; and the
- Regional Seas Programme of UNEP, which has been developing and implementing Regional Action Plans on Marine Litter, including capacity building for effective management, promoting public awareness and strengthening cooperation among governments, NGOs, and other stakeholders.

3.2 National Environmental Policies, Rules and Regulations

46. The project will be supporting grants and activities across the SAR. As part of the sustainability framework of the project, all subprojects and activities shall be consistent with the national environmental framework on environmental impact assessment; environmental standards for air, water, and land; occupational safety and health; labor and working conditions; and community safety. The various national environmental frameworks, regulatory agencies, and environmental procedures of the SAR countries are presented in the following subsections:

3.2.1 Afghanistan

47. The National Environmental Protection Agency (NEPA) goal is “to protect the environmental integrity of Afghanistan and support sustainable development of its natural resources through the provision of effective environmental policies, regulatory frameworks and management services”.

48. Interim Environmental Impact Assessment Regulations. These regulations govern the process of environmental impact assessment in Afghanistan on an interim basis pending the establishment of the EIA Board of Expert in terms of Article 20 of the Environmental Law and issuing of final regulations. These regulations provide the detailed process of EIA and list the projects into category A and B based on potential impacts.

49. The Government’s regulation on environmental impact assessment is based on the Environmental Act of Islamic Republic of Afghanistan (Gazette No. 912) dated 23 Jadi, 1384 (25 January, 2007). The NEPA, as an independent institutional entity, is responsible for coordinating and monitoring conservation and rehabilitation of the environment, and for implementing this act.

50. Article 16 and 17 of Chapter 3 of the Environmental Act describes the process of preparing a preliminary assessment, an environmental impact statement and a comprehensive mitigation plan to be conducted by the proponent of each project. Article 21 mentions public consultation is required for all the projects.

51. Article 18 describes the approval procedure of environmental impact assessment. The NEPA will appoint an EIA Board of Experts to review, assess and consider applications and documents submitted by the proponent. Acting on the advice of the EIA Board of Experts, NEPA shall either grant or refuse to a grant permit in respect of the project. A permit granted will lapse in the event that the proponent fails to implement the project within three years of the date of which the permit was granted.

52. Article 19 describes the appeal procedure. Any person may, within thirty (30) days of the granting or refusal of a permit, appeal the decision to the Director-General of the NEPA. The

Director-General shall review the appeal application and thereafter make an appropriate decision. In case the appellant wish to appeal the Director-General's final decision, the matter shall be referred to the relevant court.

3.2.2 Bangladesh

53. In Bangladesh, the primary institution for environmental management is the Department of Environment (DoE), under the Ministry of Environment and Forest (MoEF). The DoE is the authority with the mandate to regulate and enforce environmental management, and the setting and enforcement of environmental regulations, including the pollution control of water resources. Its key duties relate to the water pollution (WQS) for particular uses of water and for environmental clearance permits - the latter being legal requirements before proposed projects can proceed. ECA status confers protection on land and water resources through a series of environmental regulations.

54. The DoE is responsible for ensuring the application of environmental laws and issuance of necessary clearances. The procedures and requirements for EIA under the power sector are dictated by the Environment Conservation Act of 1995, which introduced a requirement for any proposed "industrial unit or project" to obtain prior approval from the DoE.

55. The Environment Conservation Act has classified projects to be assessed by the DoE in four categories (Green, Amber A, Amber B, and Red). Projects which are classified to the red category will require an IEE which will be followed by a full EIA. Subject to a satisfactory review of the environmental assessment, the DoE issues an authorization for the project to proceed. The authorization consists of two parts: (a) "Site Clearance", which gives approval to the site proposed for the project and (B) "Environmental Clearance", which approves the content of the project.

56. A key requirement of the EIA for projects classified in the Amber and Red categories is an environmental management plan (EMP). The objective of the EMP is to enable the project proponent to show the DoE how it will deliver the environmental performance assessed in the EIA. The EMP must describe in detail the organization and management responsibilities, how mitigation measures identified in the EIA will be implemented and monitored. A Clearance from the DoE does not relieve the developer of a project from the requirement to comply with other environmental regulations. In particular, the Bangladesh National Environment Quality Standards (EQS) for industrial effluent have been set and compliance is mandatory.

57. The Environment Conservation Rules give the Director General of the DoE the discretion to issue Environmental Clearance directly without issuing any site clearance to any industry or project if the Director General finds appropriate reason for doing so.

58. National Strategies, Policies, Acts and Rules related with the environment include the following:

- Environment Pollution Control Ordinance, 1977
- Environmental Quality Standards for Bangladesh, 1991
- National Conservation Strategy (NCS) 1992
- Environment Policy (1992)
- National Environment Management Action Plan (NEMAP) 1995
- Environment Conservation Act (1995)
- Environment Conservation Rules (1997)

59. There is no specific marine litter management agency in Bangladesh. However, many agencies are present for waste management, protection of environment, preservation of

resources, water management, conservation of wildlife etc. that are indirectly have the act, rule, law or legislation which prevent marine pollution or litter.

60. Bangladesh has initiated a process to develop National Program of Action (NPA) under the Global Program of Action (GPA) for the Protection of the Marine Environment from Land-based Activities in 1999. Even though Bangladesh has sign and rectified many international conventions, policies and laws it was observed that no proper implementation mechanism to practically implement the litter management activities.

3.2.3 Bhutan

61. The policy, legal, and administrative frameworks relevant to the environmental assessment of projects in Bhutan have been established by the following laws and regulations: (i) the National Environmental Protection Act of 2007, (ii) the Environmental Assessment Act of 2000, and (iii) Regulation for Environmental Clearance of 2002. At the national policy level, environmental protection and conservation is a constitutional mandate to:

- Protect, conserve, and improve the pristine environment;
- Safeguard biodiversity; and
- Prevent pollution and ecological degradation.

62. A National Environment Committee was established in 1989 in Bhutan, as part of the Planning Commission, under the Royal Command of His Majesty the King. The Environment Secretariat was de-linked from the Planning Commission and upgraded to an independent organization functioning as the National Environment Commission (NEC) in 1992. The NEC is a high-level, cross-sectoral body made up of Ministers and officials from various sectors to create policy, to regulate, and to be responsible for meeting the Royal Government's obligations under global environmental conventions.

63. The National Environmental Protection Act of 2007 is the overall law on environmental protection and specifies the powers, functions, and operational framework of the NEC. Their mandate includes the maintenance of environmental quality through the enforcement of environmental standards and promotion of best environmental management practices to address pollution and environmental hazards.

64. Article 33.1 of the Environmental Assessment Act 2000, grants the competent authority a power to screen, issue or deny the environmental clearance of the activities or project listed under Annex 2 of RECOP 2002. Regulation for Environmental Clearance of Projects (RECOP) defines responsibilities and procedures for the implementation of the Environmental Assessment Act, 2000 for issuance and enforcement of environmental clearances.

65. National Strategies, Policies, Acts and Rules related with the environment include the following:

- Environment Assessment Act, 2000
- National Environment Protection Act, 2007
- Water Prevention and Management Act of Bhutan, 2009
- General Rules and Regulations on Occupational Health and Safety, 2006
- Labour and Employment Act of Bhutan, 2007

66. The uses of plastics for carry bags, package wrappers and pouches have been banned in Bhutan since 1999 through a government decree. Even with the decree, plastic waste formed up to 12.73% of the total municipal solid wastes generated in the urban areas. Plastic wastes is composed mainly of packaging plastic products, hard and flexible plastic household items,

PET bottles, jerry can, etc. Plastic wastes especially packaging materials do not decompose and compact easily which is why it significantly affects transportation cost and landfill life.

67. The only facility that Bhutan possesses in terms of plastic recycling is shredding plant for PET bottles which when crushed and shredded to pellets can fetch better prices in export while reducing the transportation cost. Such facility is governed by the Waste Prevention and Management Regulation of 2012 which has the following mandate under Section 53 of the Waste Prevention and Management Act, 2009. Within this regulation, each person or organization is required to comply and cooperate with waste segregation, reduction, reuse and recycling initiatives by an authority or authorized service provider.

3.2.4 India

68. The Ministry of Environment and Forest (MoEF) is the nodal agency in the Central Government for policy, planning, promotion and coordination of environmental and forestry programmes. The main activities of the Ministry are conservation and survey of flora, fauna, forests and wildlife, prevention and control of pollution, afforestation and regeneration of degraded areas and protection of environment. These tasks are sought to be fulfilled through environmental impact assessment (EIA), eco-regeneration, assistance to organizations implementing environmental and forestry programmes, enactment of environmental legislation, formulation of environmental policies, promotion of environmental and forestry research, extension, education and training to augment the requisite manpower, dissemination of environmental information, international cooperation and creation of environmental awareness among all sectors of the country's population.

69. The Central Pollution Control Board (CPCB) was constituted in 1974 under the provisions of the Water (Prevention & Control of Pollution) Act, 1974. Subsequently as the Indian environmental legislation evolved, the role expanded to cover the areas of air pollution, hazardous and hospital waste management. The main functions of CPCBs stipulated in The Water Act, 1974 and The Air Act, 1981 are to: (a) promote cleanliness of streams and wells in different areas of the States through prevention, control and abatement of water pollution, and (b) improve the quality of air and to prevent, control or abate air pollution in the country.

70. The Government's EIA Notification of 2009 sets out the requirement for environmental assessment in India. This states that Environmental Clearance is required for specified projects or activities, and this must be obtained before any construction work or site development (except land acquisition) may start. Projects are categorized as A or B depending on the scale of the project and the nature of its impacts.

71. Category B projects will require environmental clearance from the State Environment Impact Assessment Authority (SEIAA). The State Level authority categorizes the project as either B1 (requiring EIA study) or B2 (no EIA study), and prepares TOR for B1 projects within 60 days. On completion of the study and review of the report, the SEIAA issues the EC based on the environmental assessment committee recommendation. The Notification also provides that any project or activity classified as category B will be treated as category A if it is located in whole or in part within 10 km from the boundary of protected areas, notified areas or inter-state or international boundaries.

72. There are several management agencies, committees and policies which are directly or indirectly responsible to implement the international conventions, laws, regulations, and treaties on marine litter management in India. The country has made effort to preparation of many acts and regulations to protect the environment, which came into force time to time. India also limited its marine litter management activities into the beach area.

3.2.5 Maldives

73. The law governing the protection of the environment in the Republic of the Maldives is the Environmental Protection and Preservation Act (EPPA) of 1993 (Act No 4/93) and responsibilities and procedures for conducting environmental assessments, together with the requirements for environmental monitoring of projects, are set out in the EIA Regulations of 2012. Completion of EIA is the responsibility of project proponents and all EIA work must be carried out by registered consultants. The EIA regulations require all solid waste disposal facilities such landfills, waste incinerators and large scale waste storage projects to have full EIAs. The environmental management plan, prepared following either the IEE or the EIA process, is prepared on a specified format and reviewed for compliance.

74. The National Solid Waste Management Policy was developed in 2008, by the Ministry of Environment, through consultations with the community and evaluation of existing waste management practices and scope for improved efficiency. The policy was then revised and adapted, and a new policy formulated and adopted in 2015.

75. The policy is in line with government commitment to provide the resources required for waste management in all inhabited islands of the Maldives and is founded on the following 10 principles:

- Each person should be responsible for waste generated at the individual level and should comply with rules and regulations established locally;
- All household waste should be managed in accordance with the requirements of the local council;
- Each inhabited island should prepare and submit an island waste management plan for the island;
- Waste collection should be undertaken on a fee-based system for all waste producers, including households and industries;
- Agreements with government agencies in different inhabited islands to ensure management of waste in the islands;
- Establishment of a waste management system in each inhabited island that is appropriate for the needs of the population and quantity and type of waste generated;
- Establishment of regional waste management facilities (RWMF) in each waste management zone;
- Establishment of arrangements to transport all residual waste to a RWMF;
- Promote adoption of waste management practices that generate revenue and to apply revenue to waste management at the island level; and
- Undertake waste management training and awareness campaigns at the national level.

76. National Strategies, Policies, Acts and Rules related with the environment include the following:

- Environmental impact assessment (EIA) regulations of 2007, updated in 2012 (Regulation No. 2012/R-27);
- By-law on Uprooting, Cutting and Transportation of Plants and Trees (2006);
- Regulation on Stone, Coral and Sand Mining (undated);
- Regulation for the Protection and Conservation of the Natural Life and character of Old Plants and Trees in the Maldives;
- Dewatering Regulation (213/R-R1697);
- Environmental Damage Liabilities Regulation (2011/R-9); and
- Waste Management Regulation (2013-R58).

77. Much like many other SAR countries, Maldives also addressed the issue of marine litter through variety of laws and regulations. However, there is no specific legislation or legal frameworks governing marine litter in the Maldives.

3.2.6 Nepal

78. The requirement for Environmental Assessment in Nepal is established by the National Environment Protection Act (1997), and the procedures are defined in the Environment Protection Rules (EPR) (1997) and its amendment of 20 August 2007.

79. The Solid Waste Management Act 2011 unifies the Solid Waste Management law to ensure a clean and healthy environment through source reduction, re-use, processing and disposal of solid waste for effective solid waste management and to minimize the adverse impact of solid waste on public health and the environment.

80. Nepal's procedures for environmental assessment of projects are described in the Environment Protection Act (EPA), 1997 and the Environment Protection Rules (EPR), 1997 and Amendment of 20 August 2007. Projects that need EIA and IEE are listed in the EPR. The responsibility for undertaking IEEs for the proposed subprojects lie with the Department of Urban Development and Building Construction (DUDBC) as the Proponent, on behalf of the Ministry of Physical Planning and Works (MPPW). Public consultations, including notification of stakeholders, and dissemination of information is a requirement particularly during the review and subsequent approval of the IEE reports.

81. The objective of the EPA is to recognize the interdependence between development activities and the environment, and to maintain a clean and healthy environment by minimizing, as far as possible, the impacts of environmental degradation on humans, animal and plant species, and their physical surroundings. The EPA provides the much needed legal basis for the authorities concerned to require an IEE or EIA for all projects with potentially negative impacts on the environment. With the enforcement of the Act, it will not be possible to implement such projects without the approval of the authorities concerned.

82. While the responsibility to conduct an initial environmental examination is left to individual implementing agencies, all cases requiring an EIA must be referred to the Ministry of Population and Environment. The Ministry can make use of outside expertise for reviewing EIA reports when deciding whether or not to approve a proposal. The implementing agencies can then approve a project with the proviso that the proponent adopt the necessary preventive or mitigating measures as indicated by the EIA.

83. National Strategies, Policies, Acts and Rules related with the environment include the following:

- Plant Protection Agreement for Asia and the Pacific Region, 1956
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1973)
- Convention Concerning the Protection of World Cultural and Natural Heritage (World Heritage Convention), 1972
- International Tropical Timber Agreement, 1983
- Convention on Biological Diversity, 1992.

84. Nepal has imposed a ban on plastic bag less than 30 microns for small bags (7"x14") and 40 microns for bigger bags (20" x 35").

3.2.7 Pakistan

85. At the federal level, the Ministry of Environment is a main institution in charge of environment, which has divisions on environment, urban development and wildlife. Under the ministry, Pakistan Environment Protection Council (PEPC) and Environmental Protection Agency (EPA) are major authorities on environmental protection. The PEPC formulates environmental legislation, while the EPA is a planning and implementing agency.

86. The Pakistan Environmental Protection Act, 1997 is the basic legislative tool empowering the government to frame regulations for the protection of the environment. The act is applicable to a wide range of issues and extends to air, water, soil, marine, and noise pollution, as well as to the handling of hazardous wastes. The law prescribes the requirement for an initial environmental examination (IEE) and environmental impact assessment (EIA). Section 12(1) states that: "No proponent of a subproject shall commence construction or operation unless he has filed with the Federal Agency an initial environmental examination [IEE] or, where the subproject is likely to cause an adverse environmental effect, an environmental impact assessment [EIA], and has obtained from the Federal Agency approval in respect thereof."

87. The Pakistan Environmental Protection Act, 1997 (PEP Act) provides for two types of environmental assessments: initial environmental examinations (IEE) and environment impact assessments (EIA). EIAs are carried out for subprojects that have a potentially significant environmental impact, whereas IEEs are conducted for relatively smaller subprojects with a relatively less significant impact.

88. The Pakistan Environmental Protection Agency Review of IEE and EIA Regulations, 2004, prepared by the Pak-EPA under the powers conferred upon it by the PEP Act, categorizes subprojects for IEE and EIA. Schedules I and II, attached to the Regulations, list the subprojects that require IEE and EIA, respectively.

89. Under Pakistan Environmental Protection Act (EPA) 1997, (revised in 2013) imposed ban on manufacturing, sale and use of non-degradable scheduled plastic products. Further as per order issued by the Pakistan EPA in February 2005, the powers related to monitoring and pollution control in the areas of Pakistan's Maritime Zones has been delegated to the Maritime Security Agency. Pakistan is lagging behind in implementing the strategy on International Conventions, laws, regulations and treaties due to non-availability of direct responsible agency to manage marine pollution and marine environment.

3.2.8 Sri Lanka

90. The National Environmental Act (NEA) of 1980 provides the administrative arrangements for the protection, management and enhancement of the environment, for the regulation, maintenance and control of the quality of the environment, for the prevention, abatement and control of pollution.

91. The NEA is implemented by the Central Environmental Authority (CEA). The scope of this law virtually covers all aspects necessary to safeguard the environment and natural resources in the country.

92. The Act entrusts the CEA with responsibilities regarding the use of lands and the management and conservation of natural resources outside of the coastal zone. However, under the instruction of the Coastal Conservation and Coastal Resources Management Department (CCCRMD), the CEA or other Project Approving Agencies (PAA) can be delegated to process development permits within or partly in the zone.

93. The CEA is also mandated to manage the Environmental Protection Licensing (EPL) system nationally; the Initial Environmental Examination/Environment Impact Assessment (IEE/EIA) process outside the coastal zone using Project Approving Agencies (PAA) where appropriate; the environmental recommendations system regarding non-prescribed activities; and the scheduled waste management licensing system.

94. CEA is also responsible for ensuring compliance with air quality, and noise, regulations. Representation of CEA at the Northern Province and Northern Province District level includes offices in all Districts.

95. The NEA includes two main regulatory provisions through which the environmental impacts of development projects are assessed, mitigated and managed: This includes:

- The Environmental Impact Assessment (EIA) procedure for major development projects - regulations published in Government Gazette Extraordinary No 772 June 23, 1993 and in subsequent amendments;
- The Environmental Protection License (EPL) procedure for the control of pollution - regulations published in Government Gazette Extraordinary No 1533/16 of 25 January 2008.

96. The provisions. for EIA is contained in Part IV C of the NEA, which requires the submission of an IEE or EIA report in respect of certain “prescribed projects”. These are specified in Gazette Extraordinary No 772/22 of 23 June 1993.

97. Sri Lanka also has gathered a number of agencies to manage the marine pollution. Even though there are many agencies to manage the marine litter, only Marine Environment Protection Agency (MEPA) has been engaged in to implement marine litter management activities in relation to the strategy on International Conventions, laws, regulations, and treaties.

4. WORLD BANK ENVIRONMENTAL AND SOCIAL STANDARDS

98. The following are the environmental and social review summary done at the Concept Stage of the project presenting the assessment of the applicability of the World Bank ESS on the project.

4.1 ESS1 Assessment and Management of Environmental and Social Risks and Impacts

99. **Objectives.** Identify, assess, evaluate, and manage environment and social risks and impacts in a manner consistent with the ESSs. Adopt a mitigation hierarchy approach (i.e., anticipate and avoid risks and impacts; minimize, reduce and prior to mitigation). Adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities. Utilize national environmental and social institutions, systems, laws and regulations whenever appropriate. Promote environmental and social performance which recognize and enhance partners' capacity.

100. The proposed project is expected to have positive and beneficial impacts for SAR and its oceans as a whole as the combination of supporting the enabling environment, coordination and capacity building, and innovation and support to the 3Rs/AIR techhnologies is expected to have positive long-term effects in reducing the dumping of plastic wastes in waterways that end up in coastal areas and oceans. The standard is still relevant to the project as innovative and environment-friendly and sustainable technologies and solutions to collect and recycle, reuse or repurpose plastics **may still pose risks** to marine life, waste workers and waste pickers, and communities although risks and impacts are expected to be moderate. Any residual plastics that cannot be recycled, reused or repurposed will need to be properly disposed and managed. In addition, TA activities, such as, policy formulation, data collection, research and monitoring will be screened for environmental and social risks and impacts.

101. An Environmental and Social Assessment (ESA) was prepared for the project. The ESA took into account all environmental and social issues within the region including environmental profiles; current state of the surface-, coastal, and marine plastic pollutions and the asociated risks of plastic pollution. The ESA also identified major marine litter management challenges in the region. The ESA also reviewed current approaches to addressing the plastic pollution in the region and the capacity of SACEP in addressing E&S issues.

102. SACEP also drafted the Stakeholders Engagement Plan and the Environmental and Social Commitment Plan consistent with the requirements of the World Bank's ESF. As the subprojects are not yet identified, this ESMF is being drafted to provide guidance to SACEP on how to identify, assess and manage the environmental and social risks of the subprojects that will be handled during project implementation.

103. The ESMF will set out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts. It contains measures and plans to reduce, mitigate and/or offset adverse risks and impacts, templates for estimating and budgeting the costs of such measures, and information on the responsible entity for addressing project risks and impacts, including on its capacity to manage environmental and social risks and impacts.

4.2 ESS2 Labor and Working Conditions

104. **Objectives.** Promote safety and health at work. Promote the fair treatment, non-discrimination, and equal opportunity of project workers. Protect project workers, with particular emphasis on vulnerable workers. Prevent the use of all forms of forced labor and child labor. Support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law. Provide project workers with accessible means to raise workplace concerns.

105. The project will employ direct workers such as project staff, consultants, and will work with TA partners and block grantees that will implement the project. The subprojects may also involve community workers (waste pickers, workers who volunteer to cleanup the ocean, beaches and rivers) as well as contracted workers who may work on recycling centers and plastic collections. Labor Management Procedures proportional to the project's labor and working condition risk and impacts will be developed by SACEP to meet the requirements of this standard. OHS risk to workers will be considered in the ESMF and an OHS plan may be developed following the World Bank's EHSGs both for SACEP and the partners and grantees, particularly for Components 1 and 2 of the project. Grievance redress system for workers will also be developed and implemented.

4.3 ESS3 Resource Efficiency and Pollution Prevention and Management

106. **Objectives.** Promote the sustainable use of resources, including energy, water, and raw materials. Avoid or minimize adverse impacts on human health and the environment caused by pollution from project activities. Avoid or minimize project-related emissions of short and long-lived climate pollutants. Avoid or minimize generation of hazardous and non-hazardous waste. Minimize and manage the risks and impacts associated with pesticide use. Requires technically and financially feasible measures to improve efficient consumption of energy, water, and raw materials, and introduces specific requirements for water efficiency where a project has high water demand.

107. The ESA presented the various innovations, activities, and 3R technologies currently done not only in the region but also on the global setting. Such approach included a variety of options and menu from enabling environment, to prevention, mitigation/remediation and cleanups. For technologies and innovations reviewed, ESS3 standard is deemed relevant especially because the recycling plants will be required to use resources sustainably during recycling/repurposing work (i.e., water and electricity). The project will proactively support resource efficiency, waste minimization, plastic pollution prevention and plastic reduction. Any technology or practice of 3Rs that will be resource-intensive, non-environment friendly and unsustainable will be screened out and rendered ineligible for project financing. The TORs for developing policies and capacity building and investments will promote resource efficiency, recycling and reuse. The relevance of GHG emissions from the project will be assessed during preparation and calculations will be done accordingly if significant emissions are expected or the equivalent reductions of emissions can be quantified when materials are recyled and reused.

4.4 ESS4 Community Health and Safety

108. **Objectives.** Anticipate or avoid adverse impacts on the health and safety of project-affected communities during project life-cycle from routine and non-routine circumstances. Promote quality, safety, and climate change considerations in infrastructure design and construction, including dams. Avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials. Have in place effective measures to address

emergency events. Ensure that safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.

109. The relevance of this standard to the project will be assessed and confirmed during preparation. The clean up-focused actions that help to alleviate existing clogging of drains and waterways with plastics should result in improvements in community security from better flood management. On the other hand, facilities recycling or processing wastes may also impose community health risks particulalry related to untreated wastewater discahrges, emissions of noxious odors, noise or vibrations, and disposal of residual wastes. Safety of adjacent community must be ensured especially when the subproject will require construction works (i.e., backfilling, excavation, pipe laying or trenching) or during installation of equipment. Some activities such as temporary storage facilities, transfer stations, and hauling of recycled materials or residual wastes may also pose safety risks to communities. The risks will have to be evaluated and managed properly through the environmental and social management plans that will be required by the project from its partners and grantees.

4.5 ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

110. **Objectives.** Avoid or minimize involuntary resettlement by exploring project design alternatives. Avoid forced eviction. Mitigate unavoidable adverse impacts from land acquisition or restrictions on land use by providing compensation at replacement cost and assisting displaced persons in their efforts to improve, or at least restore, livelihoods and living standards to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher. Improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure. Conceive and execute resettlement activities as sustainable development programs.

111. The project is not expected to require any land acquisition having adverse impacts on people's lands and land-based assets. Should land be required for any of the innovative technologies that are ultimately supported, the project will pursue ways of acquiring the needed land through means that do not involve physical or economic displacement or resettlement, such as voluntary land donations.

4.6 ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resource

112. **Objectives.** Protect and conserve biodiversity and habitats. Apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity. To promote the sustainable management of living natural resources.

113. This standard is deemed relevant as project activities will benefit coastal and marine ecosystems as well as oceans and pelagic systems. The innovative technologies and solutions suggested to cleanup the oceans and rivers may also have risks & impacts on marine life.

4.7 ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

114. **Objectives**. Ensure that the development process fosters full respect for affected parties' human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods. Promote sustainable development benefits and opportunities in a manner that is accessible, culturally appropriate and inclusive. Improve project design and promote local support by

establishing and maintaining an ongoing relationship based on meaningful consultation with affected parties.

115. The relevance of this standard to the project will be assessed and confirmed during preparation. Screening and site-specific assessments will be included in the ESMF as needed.

4.8 ESS8 Cultural Heritage

116. **Objectives**. Protect cultural heritage from the adverse impacts of project activities and support its preservation. Address cultural heritage as an integral aspect of sustainable development. Promote meaningful consultation with stakeholders regarding cultural heritage. Promote the equitable sharing of benefits from the use of cultural heritage.

117. It is not envisioned that this project will involve civil works that will have impact on cultural heritage. Plastic recycling, repurposing centers will be existing facilities, however, the relevance of this standard will be assessed and confirmed during preparation.

4.9 ESS9 Financial Intermediaries

118. **Objectives**. Sets out how Financial Intermediaries (FI) will assess and manage environmental and social risks and impacts associated with the subprojects it finances. Promote good environmental and social management practices in the subprojects the FI finance. Promote good environmental and sound human resources management within the FI.

119. The standard is not currently relevant. The relevance of this standard to the project will be assessed during preparation.

4.10 ESS10 Stakeholder Engagement and Information Disclosure

120. **Objectives.** Establish a systematic approach to stakeholder engagement that helps Borrowers identify stakeholders and maintain a constructive relationship with them. Assess stakeholder interest and support for the project and enable stakeholders' views to be taken into account in project design. Promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life-cycle. Ensure that appropriate project information is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner.

121. The project will promote and support circular economy plastic waste streams which will involve a range of stakeholders across the region, including public sector organizations, community groups, and private sector entities. Project activities will include strengthening stakeholder platforms; collaborating with civil society groups to reduce plastics leakage at the community level; behavior change and awareness raising campaigns and challenge grant competitions; and development of regionwide youth-led movements for change, among other things. Given the project's implementation arrangements and activities, a Stakeholder Engagement Framework will be developed during preparation to promote broad, inclusive stakeholder engagement and participation in all phases of the project. This Framework will identify the key apex organizations working in the area of marine plastics as well as the mechanisms these use to engage with other downstream organizations. One or more Stakeholder Engagement Plans will be developed during project implementation to guide the engagement of stakeholders involved in the community-focused activities such as the behavior change, innovation grants, or beach cleanups.

5. POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

5.1 Environmental Risks

122. The proposed project, **both through TA and the block grants**, is expected to have largely positive and beneficial impacts for SAR and its oceans. The project's objectives to support the enabling environment, cross-country coordination and capacity building, innovation; and support to the 3Rs is expected to have positive long-term effects in reducing and the dumping of plastic wastes in waterways that end up in coastal areas and oceans. The project will stimulate partnerships among civil society organizations, youth groups and other stakeholders to support national and community-based behavior change and awareness raising; provide funding for innovative solutions; and support youth-led movements, among other things. It may also support, at the policy level, the strengthening of E&S standards and certification for sustainable plastics supply chains focused on socially and environmentally responsible waste sourcing and recycling through transparent, accountable, and legitimate supply chains addressing labor issues, working conditions, and livelihoods. In addition to, the project may also support strengthening industry standards for recycled plastic products (e.g. plastic roads and furniture products) to grow secondary-reuse markets and attract private sector investments.

123. At the concept stage, specific types of innovative technologies and solutions to reduce, reuse and recycle plastics which will be supported are not yet established. The project design, however, will ensure that only investments that focus on these 3Rs that are resource efficient, sustainable and environment-friendly will be supported. Those that are pollutive and resource intensive will be on a negative list and will be ineligible for project financing. That said, environmental risks still exist particularly to the potential subprojects through the block grant, which would relate to residual wastes or those plastics that cannot be reused, recycled and repurposed, which will have to be disposed and managed properly. However, given that the thrust of the project is 3Rs, residual plastic wastes should be minimal. In addition, innovative methods of collecting plastics from the oceans may still have risks and impacts, which will need to be properly screened and/or assessed during project implementation.

124. Re-processing and recycling of wastes are also potential sources of residues. For instance, PET bottle recycling facilities produce wastewater from washing, and fumes/smoke from heating. Such impacts must be mitigated by installing proper pollution control equipment such as wastewater treatment facilties for washwater, and fume hoods with scrubber for air pollution control.

125. The transport of collected plastic litters and e-wastes from cleanup and several collection points to the recycling facilities and final disposal must be included in the risk analysis. The project must ensure that wastes are properly handled, stored an transported to avoid leakages and, when necessary, residuals and non-recyclable residues are treated and disposed off properly in approved disposal facilities.

126. Environmental and social due dilignce must be conducted in all potential subprojects. Special attention must be given to informal waste management activities including waste pickers, informal plastic recyclers, and e-waste dismantlers to assess existing E&S risks and design appropriate and realistic mitigating measures.

127. The environmental risks from subprojects that will be supported through TA are very unlikely as the TA will mostly involve policy review and formulation, institutional building measures and IEC activities.

5.2 Social Risks

128. On the social side, there will be health risks and impacts to those working in plastics collection and recycling/repurposing due to potential exposure to harmful materials and chemicals during the recycling process, if proper health and safety measures in work places are not implemented and depending on the technology adopted to recycle and repurpose plastics. Resource use patterns will also need to be assessed in these facilities to ensure resources (energy, water and raw materials) are used in an efficient and sustainable manner. The project will include a range of stakeholders across the region: public sector organizations, social enterprises, community groups, and private sector entities. Specific criteria for the management of the challenge grants will need to be prepared and applied to ensure fair access to funding, especially by women's organizations and youth groups. In addition, institutional capacity of the implementing agency, inter-organizational and cross-regional coordination is also weak, and this will be strengthened under the project.

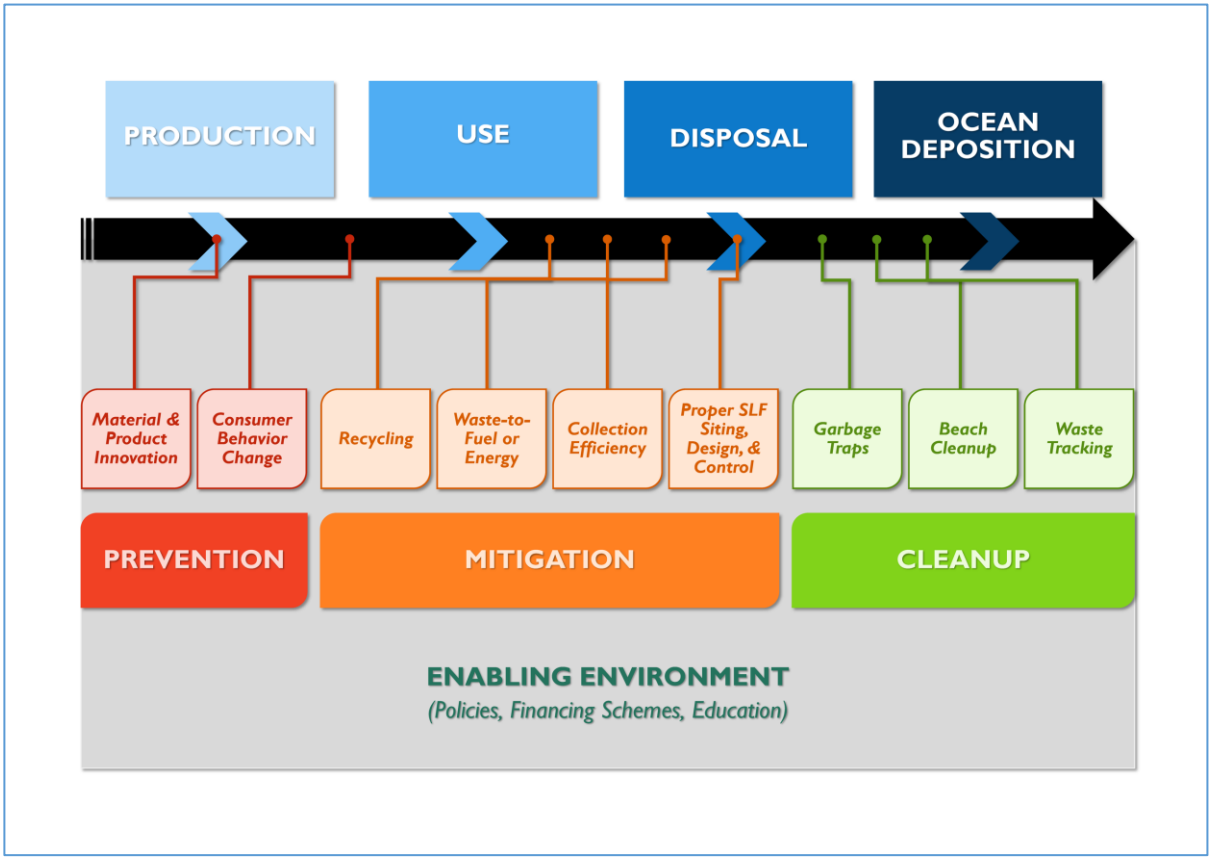
129. However, with the application of positive and negative lists of subprojects and the project's focus on clean and resource-efficient technologies, capacity strengthening and support to policies that promote alternatives to plastic and reduction residual plastic wastes that will need specialized final disposal method, the environmental and social risks of the project are unlikely to be significant and are likely to be low in magnitude, local in nature and can be mitigated through adoption of health and safety measures and best practices in 3Rs. Based on these, the E&S risk classification of the project is assessed to be Moderate. This will be revisited and adjusted during implementation as more 3R proposals are approved and gets implemented.

130. According to the Gender Based Violence (GBV) risk assessment, the project is classified as Low Risk. The GRM will be appropriately trained to handle potential GBV complaints ethically. Mapping of GBV service providers will be undertaken.

5.3 Anticipated Impacts, Issues and Risks

131. The ESA reviewed the current approaches to addressing plastic pollution in the region. **Figure 1** below, commonly known hierarchy of plastic waste management, follows the order of points of intervention in the pathway of plastics from production to use to wastage until potential deposition in the oceans.

Figure 1: The pathway of plastic materials from production to deposition in the oceans



132. **Prevention strategies** that will be supported by technical assistance or block grants include those that aim to reduce plastic waste generation. New or alternative products, new product design and behavior change among consumers would reduce plastic production to only the unavoidable plastic commodities. Further plastic waste reduction can be achieved through packaging reuse, plastic-free packaging or innovative product dispensing system.

133. **Mitigation strategies** are actions for generated waste. Waste collected and eventually disposed in formal or informal dumpsites may be reduced through recycling recovered materials to new or waste-derived useful products (such as building materials, park benches, roads or pavements) and converting waste to fuel or energy. Meanwhile, uncollected garbage may be reduced through expanding or improving the collection services. The amount of garbage from dumpsites that are transported to oceans may be reduced through better design, control and location of formal or informal dumpsites. Flooding events bring garbage from poorly located dumpsites (e.g., near waterways or flood prone areas) to streams leading to oceans.

134. **Cleanup** includes activities that target garbage that has escaped collection. Transport of plastic wastes from shores to the sea can be reduced using garbage traps, beach cleanup and waste tracking system. Behavioral change is needed in many of the above strategies.

Such behavioral change may be driven by education or re-training campaigns. Some strategies would entail innovations, which would require research and development. For some, like waste-to-energy processes, technology is available but would require large investment.

E&S Risk and Impacts from Subprojects to be Supported by the Block Grant

135. **Table 1** identifies potential environmental and social impacts, issues and risks for current approach on plastic litter management. Potential subprojects that may be supported by the block grants are also listed. The listing is not exhaustive and may include other innovations to be proposed by grant recipient across the region.

Table 1: Analysis of Potential Environmental and Social Impacts, Risks

Current Approach	Anticipated Environmental and Social Impact, Risks
Prevention	
• Avoidance by new material, new product design (change in production or process) • Reuse	• Potential generation of other waste streams associated with new process or materials (i.e., more water and chemical usage in production of glass bottles than PET); • With the change of process and/or raw material, there may be a need to re-design existing wastewater treatment facilities to address new waste water characteristics or a totally new wastewater system will be needed; • Consequently, with the new process/products used, there might be a need to re-design existing air emission controls or additional treatment facilities may be required; • Workers safety.
Mitigation	
• Recycling technologies (same or new products) • Recovery of plastics • Waste to energy • Better storage, collection and transport • Better thrash trap design installed in waterways • Better design landfills	• Increase in water consumption for cleaning; • Generation of wastewater; • Potential release of micro-plastics and toxic chemicals (i.e., for plastic e-wastes) and fumes; • Generation of solid residues (non-recyclable components) which may need disposal or incineration; • Potential impact of constructing new facilities, and or installation of additional equipment; • Community safety; • Workers safety.
Cleanup	
• Beach and river bank cleanup • Garbage traps • Waste tracking	• Transportation/hauling issues for the recovered wastes; • Need of processing or recycling facilities; • Disposal for recovered plastic which are not recyclables; • Safety of workers/partners/volunteers; • Exposure to sewage-contaminated waste during cleanup.

E&S Risk and Impacts from Subprojects to be Supported by the Technical Assistance

136. All subprojects supported by the grants would require an **Enabling Environment**, such as in the form of policy and financing scheme, to make them happen. In most of these strategies, government, business entities, and individual consumers must take their respective roles. Such activities will be supported by the project through the TA.

137. The environmental and social risks and impacts from such activities will be minimal. However, screening must still be conducted to ensure that such policies, schemes or regulations proposed across the region will be consistent with WB ESS and will not violate existing national laws and regulations.

5.4 Risk from Micro-plastics

138. Micro-plastics have been defined as particles of plastic < 5 mm in diameter (GESAMP 2015). Primary micro-plastics are particles that have been manufactured to a particular size to carry out a range of specific functions. They are used extensively in industry and manufacturing, for example: as abrasives in air/water-blasting to clean the surfaces of buildings and ships' hulls; as powders for injection molding; and, more recently, for 3D printing. They are also used in so-called personal care and cosmetic products (PCCPs), often to improve the cleaning function or impart color, and are sometimes referred to as microbeads. PCCPs containing micro-plastics/microbeads include toothpaste, cosmetics, cleansing agents and skin exfoliators (Napper et al. 2015).

139. **Micro-plastics and seafood safety.** For the present purposes, 'seafood' includes finfishes, crustaceans, mollusks, amphibians, freshwater turtles, and other aquatic animals (such as sea cucumbers, sea urchins, sea squirts and edible jellyfish) produced for the intended use as food for human consumption (FAO 2014). It is evident that humans are exposed to micro and nano-plastics through the consumption of marine food stuffs, such as shellfish, shrimp, small fish species such as sprat and potentially other species such as sea urchins, tunicates and sea cucumbers, that are consumed as whole animal foods including the gastrointestinal tract. Consumption of filter feeding invertebrates, such as mussels or oysters, appears the most likely route of human exposure to micro-plastics, but a wide variety of commercial species appear to be contaminated with micro-plastics. One study has attempted to estimate potential dietary exposure based on observed micro-plastic concentrations in seafood and assumed consumption rates. This study estimated dietary exposure for high mussel consumers in Belgium to range between about 11 000 (Van Cauwenberghe et al. 2014) and 100 000 MPs a-1 (GESAMP 2015).

140. Although it is evident that humans are exposed to micro-plastics through their diet, and the presence of micro-plastics in seafood could pose a threat to food safety (Van Cauwenberghe and Janssen 2014, Bouwmeester et al. 2015), our understanding of the fate and toxicity of micro-plastics in humans constitutes a major knowledge gap.

141. **Primary** micro-plastics are those manufactured on purpose such as 'microbeads' in cosmetic and personal care products (such as toothpaste, exfoliating scrubs), cleaning agents (air or water blasting of surfaces), and resin pellets for plastic industry use. **Secondar**y micro-plastics are the result of weathering and fragmentation of larger plastic objects. These processes are enhanced by exposure to UV irradiation, which are almost absent in deep sea bottoms. Tyre-wear dust from land-based transportation and microfibers of textiles are significant sources of secondary micro-plastics in marine environment. Recycling facilities are also potential sources of secondary micro-plastics. **3R technologies must be therefore evaluated to ensure that secondary micro-plastics are not produced during recycling processes.**

5.5 Risks from Recovery and Processing of Plastics from E-Wastes

142. Around 2% of the total solid waste generation in developed countries consists of waste electrical and electronics equipment (WEEE) (UNEP, 2007). The presence of hazardous substances in WEEE makes it imperative to effectively manage them, as well as, to strictly implement regulations concerning their proper disposal. WEEE have components that are covered under the amended Stockholm Convention (2009) on POPs. These include certain brominated flame retardants (BFRs) that are listed in Annex A of the Convention. These are: (a) hexabromobiphenyl (HBB) and (b) polybrominated diphenyl ethers (PBDE) – commercial Octa BDEs and commercial penta BDE. There is no specific exemption for the production or uses of HBB, while production and use of POP-PBDEs have to be eliminated by Parties subject to the exemptions allowed by the Convention.

143. Each year some 3 million Metric Tons plastics are used in new Electric and Electronic Equipment (EEE) in Europe. In the separately collected Waste of Electric and Electronic Equipment (WEEE) there are many plastics. There are many types of plastics used in EEE products. The most common are HIPS, ABS, PP and PC-ABS. These plastics may contain Brominated Flame Retardants (BFR's) and some of the BFR's are restricted, because they contain substances of concern. The vast majority of WEEE plastics do not have BFR's in them.

144. Plastics with BFR's are typically used in appliances that generate heat such as CRT televisions and monitors, printed circuit boards in IT equipment, printers and cables and connectors. In the average mix of WEEE plastics only 5 – 10 % consist of plastics with Brominated Flame Retardants. The majority (> 92 %) of the applied Brominated Flame Retardants in EEE are not restricted. The restricted BFR's, according to POP regulation are: Octa BDE, Penta BDE, and HBCD. Deca BDE has been added to these POP's, but no thresholds have been defined yet. Since the introduction of the RoHS directive in 2003 these restricted BFR's are not allowed into new electronic equipment.

145. At this point, there are no available data on the percentage of WEEE are intercepted as marine litters. As it is difficult to analyze the amount of the restricted BFRs in the plastic WEEE, potential WEEE that will be collected must be handled, stored and processed according to prescribed procedure. The disposal of WEEE via landfill could pose serious environmental threats, like groundwater and surface water pollution. Open burning emits toxic substances into the air, while direct human exposure to the hazardous components of WEEE poses serious health concerns.

5.6 Negative List

146. From the ESA conducted for this project, and the environmental and social risk analysis of anticipated subprojects, the ESMF proposed that the initial screening for the eligibility be based on the list of excluded activities that will not be supported by the project.

Table 2: List of Non-Eligible Activities/Technologies for the Components 1 and 2 of the PSR

• Activities that will produce wastewater that will not be possible and viable for on-site treatment.
• Processes/technologies that will discharge highly polluted processed water, emit toxic fumes and noxious odor exceeding the national emission standards or the World Bank Group Environment, Health and Safety Guidelines (EHSG).
• Use of innovative and cutting-edge technologies in marine clean-up that would harm marine life

• Technologies whose by-product will promote production of secondary micro-plastics.
• Subprojects which may impact critical habitats, i.e., disposal of marine plastics in a facility located in a critical habitat.
• Will cause adverse negative impact on income/livelihood resources.
• Activities which will employ child workers and forced labor.
• Activities which will involve any kind of forceful evictions of people.
• Production of residues with no available safe disposal facilities duly approved by the government.
• Activities which will involve recovery of plastics from waste electronic and electrical equipment (WEEE) which will potentially release toxic restricted BFR.
• Activities/processes which will involve use of highly toxic and/or banned chemicals.
• Activities that will adversely impact and pollute international waterways such as the Bay of Bengal and river system shared by riparian countries.
• Involve activities that cause or lead to child abuse, child labor exploitation or human trafficking; No child under the age of 14 should work on the construction, rehabilitation or maintenance of a subproject. Children between ages 14-18 will not be employed or engaged in connection with the project in a manner that is likely to be hazardous[1] or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral and social development.
• Involve development of new settlements or expansion of existing settlements in critical habitats, protected areas or areas proposed for certain levels of national protection (e.g., reserved forests).
• Entail the purchase or use of illegal/illicit drugs, military equipment or other potentially dangerous materials and equipment, including chain saws, pesticides; insecticides; herbicides; asbestos (including asbestos-containing materials); or other investments detrimental livelihoods including cultural resources.
• Subprojects screened with High and Substantial risks.

5.7 E&S Impacts from Construction Activities of the SACEP Building

147. The construction of the SACEP building, which will be funded by the project, will have potential environmental and social risks and impacts although temporary, highly localized and manageable. Such impacts may occur mostly during construction and may cause nuisance and public health concern when not properly managed.

148. Specific anticipated impacts include the following:

[1] *Work considered hazardous for children is work that, by its nature or the circumstances in which it is carried out, is likely to jeopardize the health, safety, or morals of children. Examples of hazardous work activities prohibited for children include work: (a) with exposure to physical, psychological or sexual abuse; (b) underground, underwater, working at heights or in confined spaces; (c) with dangerous machinery, equipment or tools, or involving handling or transport of heavy loads; (d) in unhealthy environments exposing children to hazardous substances, agents, or processes, or to temperatures, noise or vibration damaging to health; or (e) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.*

- Soil erosion
- Dust and noise generation
- Traffic and road safety hazard
- Waste generation from workers (wastewater, solid waste)
- Community safety
- Worker's occupational safety

149. Impacts during operation will be more on traffic and potential generation of wastewater and solid wastes.

6. ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

6.1 Environmental and Social Risk Classification

150. As part of the environmental and social procedures, the Bank classifies all projects into one of four classifications: High Risk, Substantial Risk, Moderate Risk or Low Risk. In determining the appropriate risk classification, the Bank takes into account relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential environmental and social risks and impacts; and the capacity and commitment of the Client to manage the environmental and social risks and impacts in a manner consistent with the ESSs.

151. Since the project will involve multiple subprojects that are identified, prepared and implemented during the course of the project, SACEP shall carry out appropriate environmental and social assessments of subprojects and prepare and implement such subprojects as follows:

- High Risk subprojects, in accordance with the ESSs;
- Substantial Risk, Moderate Risk and Low Risk subprojects in accordance to national law and any requirements of the ESSs that the WB deems relevant to such subprojects which were initially identified in the ESRS.

152. The identified sub-projects will be screened and will be assessed based on the type and scale of the project, its location, and the nature and magnitude of the potential environmental and social impacts. Risk classification is determined by the significance of potential impacts. Both **TA and subprojects funded by the block grants** may be assessed using an environmental and social due diligence (ESDD) to proposed partners/grantees. Subprojects screened as High or Substantial risks will NOT be funded by the project.

153.

6.2 Managing Risks

154. The identified sub-projects (TA and block grants) will be screened and will be assessed based on the type and scale of the project, its location, and the nature and magnitude of the potential environmental and social impacts. Risk classification is determined by the significance of potential impacts. Risk classification is determined by the significance of potential impacts. Table 3 presents the lists of E&S management plans that has to be prepared based on the ESS.

155. At the minimum, to ensure sustanability and accountability, ESMPs should be made part of the grant and TA agreement which will have to strictly implemented and monitored by the grant/TA recipient throughout the project implementation.

Table 3: Managing Risks According to Applicable ESS

ESS		Managing Risks
ESS1	Assessment & Management of Environmental and Social Impact	• Conduct of Environmental and Social Assessment (ESA) • Preparation of an Environmental and Social Management Framework (ESMF) • Environmental and social screening of subprojects

ESS		Managing Risks
		• Application of positive and negative list of subprojects • Preparation of environmental and social diligence (ESDD) for subprojects • Preparation of sub-project specific Environmental and Social Management Plan (ESMP) • Preparation of e-waste management plan • Submission of subproject specific Environmental Compliance Monitoring Plan • Corrective Action Plans
ESS2	Labor and Working Conditions	• Preparation of SACEP Labor Management Procedures • Requirement of Occupational and Health and Safety Plan from subprojects/grants • Preparation of GRM for labor related issues. • Codes of Conduct against GBV and SEA for SACEP and contractor (for HQ construction)
ESS3	Resource Efficiency, Pollution Prevention and Management	• Requirement of ESMP for subprojects/grants • Water & energy audits and GHG inventory report during project implementation for block grant recipients
ESS4	Community Health & Safety	• Preparation of Communication Plan, Stakeholders Engagement Plan and ESMP for subprojects • Codes of Conduct against GBV and SEA for SACEP and block grant recipients
ESS5	Land Acquisition	• E&S screening • Preparation of environmental and social diligence (ESDD) for subprojects
ESS6	Biodiversity Conservation and Sustainable Management of Resources	• E&S Screening • Preparation of environmental and social diligence (ESDD) for subprojects • Preparation of ESMP
ESS10	Stakeholder Engagement and Information Disclosure	• Preparation of Communication Plan, and Stakeholders Engagement Plan for subprojects • Grievance Redress Mechanism

6.3 Managing Impacts from the Construction of the SACEP Building

156. Impacts during construction are localized and can be easily mitigated. An ESMP for the building construction was drafted by SACEP and is included in the Annex. The ESMP must be included as part of the tender/bidding document and must be implemented and monitored

by the civil works contractor including possible third party and sub-contractors that may be engaged during construction period.

157. The initial design of the SACEP building indicates 'green features' such as rainwater harvesting, solar lighting and natural ventilation to reduce energy requirement. The building is located in a non-sewered are in Colombo, hence, a sewage treatment plant will be installed.

158. SACEP will submit compliance report to the Bank including the progress of the ESMP implementation.

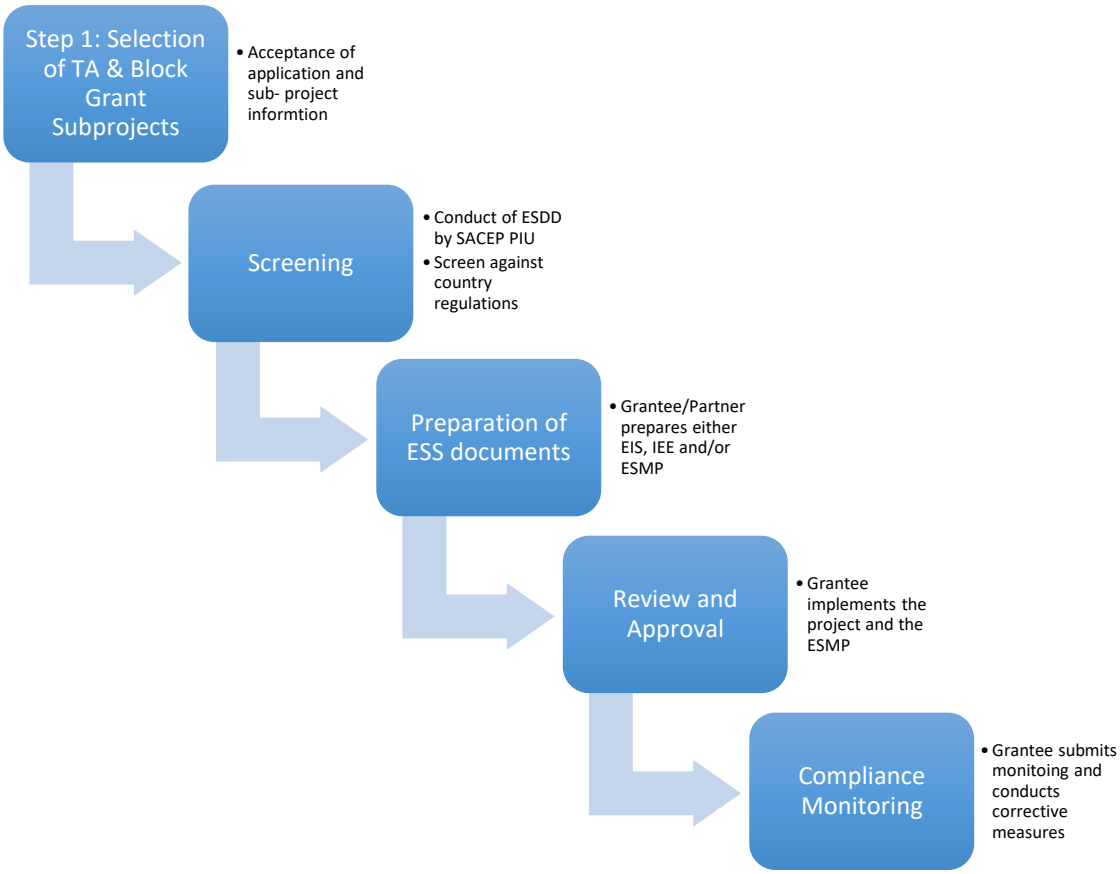
7. E & S RISK MANAGEMENT AND IMPLEMENTATION ARRANGEMENTS

7.1 Procedure

159. This section provides guidance on environmental and social risk management and the associated project development procedures to ensure that the sub-projects are sustainable. This guidance serves to ensure that potential impacts and practical mitigation measures are identified early on in the planning and selection process for this project.

160. **Figure 2** shows the proposed Project Environmental and Social Risks Assessment Process.

Figure 2: Environmental and Social Risk Assessment Process



7.1.1 Step 1: Selection of sub-project proposal or grantee

161. The first step will involve the identification and selection of sub-projects based on the agreed criteria. At the minimum the following information must be included in the grant or TA applications which will allow the environmental and social screening by the PIU.

- Description of the process or technology
- Project location/s
- Raw materials (capacity or consumption rate)

- Water and energy consumptions
- Anticipated wastes (wastewater, emissions) that will be produced
- Manpower required
- Solid waste residue disposal plan

7.1.2 Step 2: Screening of Sub-projects

162. SACEP PIU will screen subprojects early in the identification stage determining the project boundaries and possible environmental and social risks and impacts that may be encountered, including identification of disadvantaged and vulnerable groups such as waste pickers and child laborers. Potential environmental and social risks must be identified at the beginning to facilitate the proper selection of mitigating measures. The screening will ensure that the sub-project is aligned with the process undertaken by SACEP for its potential environmental and social impacts and to determine the nature and extent of the environmental and social due diligence that must be conducted before the approval of the sub-project.

163. The proposal will be screened against the negative/non-eligible subproject and/or activities.

164. An environmental and social due diligence (ESDD) may be conducted by the SACEP PIU to the existing activities which will be considered as a subproject, if needed, to check its compliance with national regulations.

165. The screening results will be validated by SACEP or the country focal person using the country's environmental impact assessment system to determine the additional documents that may be required by the government environmental authority. The required document must be prepared (i.e., EIA, IEE or ESMPs) based on the government's screening.

7.1.3 Step 3: Subproject Preparation and Documentation

166. Once the screening and documentation requirements are completed, the grantee/partner will prepare the required site- and project-specific environmental and social management plan (ESMP) which will contain the impact or risk analysis and with the proposed mitigating measures based on the identified impacts. Sample ESMP template is presented in the **Annex** including the ESMP prepared for the construction of the SACEP HQ.

167. Sub-projects assessed to be low risk will not require any plan or assessment after screening. Moderate and substantial risk activities may be required to prepare an ESMP, an IEE or an ESIA depending on and proportional to the level of risks and impacts.

168. The safeguard documents (EIA, IEE, and/or ESMPs) will be subject to consultation and disclosure in an accessible place, in a timely manner, in a form and language understandable to key stakeholders, prior to the finalization of the documents. Particular attention will be given to ensure project-affected persons, including vulnerable and disadvantaged groups and individuals[2] have adequate time and ready access to draft documents before consultation takes place.

[2] *Disadvantaged or vulnerable refers to those who may be more likely to be adversely affected by the project impacts and/or more limited than others in their ability to take advantage of a project's benefits. Such an individual/group is also more likely to be excluded from/unable to participate fully in the mainstream consultation process and as such may require specific measures and/ or assistance to do so. This will take into account considerations relating to age, including the elderly and minors, and including in circumstances where they may be separated from their family, the community or other individuals upon which they depend.*

7.1.4 Step 4: Review and Approval

169. All the safeguard documents submitted will be reviewed by PIU team before the SACEP clears the documents for its final appraisal and approval. Once the project document has been cleared by PIU, the proposed subproject goes through a number of compliance verification systems. The Bank may review the sub-projects and the results of PIU's E&S screening. SACEP may solicit the assistance or cooperation of the national focal person to review and endorse the ESMPs.

7.1.5 Step 5: Implementation, Monitoring and Evaluation

170. SACEP will regularly monitor the sub-projects to ensure the commitments are being implemented and to evaluate the compliance of the subprojects with the national environmental policy requirements. The PIU will prepare annual project implementation reports, mid-term reviews and terminal evaluations. The recipient of the block grant or TA will be responsible in reporting to SACEP and then to World Bank its compliance to the ESCP, SEP, and ESMP.

7.2 ESMP Review Process

171. As described in risk assessment process, a site-specific environmental and social due diligence will be conducted in accordance with the World Bank's ESF, and at the minimum site-specific ESMPs will be prepared as a result of such evaluation. These will be the responsibility of SACEP PIU and the grantees. For Moderate risk subproject, the ESMP should be a part of the subproject proposal package and must be an annex to any (procurement) documents or contracts/MOUs.

172. Labor management procedure and other relevant requirements listed in **Table 3** will also form a part of ESMP submittal. Implementation of ESMP will be the responsibility of subproject beneficiary/grantee. In case of any non-compliance, SACEP PIU will be required to take corrective action as the primary responsible party. Delegation of the responsibilities of all parties involved in the project is presented in **Table 4**.

173. The preparation and implementation of ESMPs are expected to cost only a small fraction of design and construction cost, as most mitigation measures will be very generic, off-the-shelf, and implementable without specialized skills, experience or equipment. For the first 5 subprojects, SACEP will submit site specific ESMPs to World Bank for prior review. When the World Bank is confident that SACEP PIU has demonstrated that the process is accurate, World Bank will transfer this prior review to post review.

Table 4: Delegation of Responsibilities for ESMF Implementation

Responsible Party	Responsibilities
World Bank	• Review, approve and disclose ESMF, LMP, and SEP on World Bank's official website. • For the first 20 subprojects, review subproject-specific ESMPs and provide no objections to SACEP. • Review and approve labor management procedures. • Conduct implementation support and supervision missions in order to ensure that the Project is in compliance with World Bank ESF requirements and standards. •

SACEP-PIU	• Prepare the project ESA. • Prepare and implement the ESMF, SEP, LMP, and ESCP and submit to World Bank for approval. • Disclose the ESMF, SEP, LMP, and ESCP on SACEP PIU website. • Conduct environmental and social screening and due diligence for grant applicant. • Review ESMPs according to ESMF. • Submit to World Bank first 5 subproject safeguards documents for prior review. • Disclose submitted ESMPs to SACEP website and incorporate ESMPs into the agreement with grantees and project partners. • Assign field specialists for the environmental and social monitoring. • Monitor implementation of labor management procedures and occupational health and safety plans of SACEP. • Conduct necessary consultations according to the SEP and communication plan. • Set up a multi-level GRM, monitor and address grievances related to the project and subprojects under specified timelines. • Submit regular environmental and social compliance monitoring report to World Bank.
National Focal Point (Ministry of Environment)	• Monitor and supervise implementation of subprojects, including ESMP.
TA and Block Grant Recipients	• Develop and implement ESMPs on the project sites. • Report on a regular basis on the ESMP implementation progress. • Report any unexpected environmental and social issues that may arise during subproject implementation.

7.3 Environmental and Social Monitoring and Reporting

174. Environmental and social monitoring during the implementation of sub-projects shall contain information on key environmental and social aspects of sub-projects, their impact on the environment, social consequences of impacts and the effectiveness of measures taken to mitigate the consequences.

175. Monitoring of the implementation of environmental measures shall be carried out by Environmental Specialists of the PIU. Representatives of the respective environmental ministries may also be involved in monitoring. The aim is to verify the main points of compliance with the ESMF and subproject-specific ESMPs, the progress of implementation, the scope of consultations and the participation of local communities. The standard checklist will be used for the reporting. In the medium term of the project implementation and at the end of the project, an independent audit will be carried out to monitor the status of environmental, social, health and safety aspects of the project. The audits are necessary to ensure that (i) the ESMF has been properly implemented and (ii) mitigation measures are identified in subproject-specific ESMPs and implemented accordingly. The audit will be able to identify any amendments to the ESMF to improve its effectiveness.

176. Monitoring for social part will be done on the continuous bases by the PIU Social Specialist to ensure, that there is no unanticipated impact during project implementation on land, productive

assets, illegal users, people's livelihood, access to the assets etc. Monitoring will also cover health and labor issues.

177. If some issues are identified by the environmental and social monitoring, adequate mitigation measures will be proposed in the progress reports or separate Corrective Action Plans (CAP).

7.3.1 Monitoring Plans

178. The implementation of environmental and social mitigation measures is monitored by the local environmental specialists and/or project officer and supervised by the SACEP PIU. Environmental and social monitoring system starts from the grant preparation and implementation phases of through the operation phase in order to prevent negative impacts of the project and ensure the effectiveness of mitigation measures. This system helps the World Bank and SACEP to evaluate the success of mitigation as part of project supervision and allows taking an action when needed. The monitoring system provides technical assistance and supervision when needed, early detection of conditions related to mitigation measures, follows up on mitigation results, and provides information of the project progress.

179. Environmental and social monitoring to be implemented by the SACEP PIU shall provide information about key environmental and social aspects of subprojects, particularly the environmental and social impacts and the effectiveness of mitigation measures specified in respective subproject specific ESMPs. Such information enables the PIU to evaluate the success of mitigation as part of project supervision and allows for corrective action(s) to be implemented, when needed. In this regard the Monitoring Plan identifies monitoring objectives and specifies the type of monitoring, and their link to impacts and mitigation measures.

180. Specifically, the monitoring section of the ESMP provides: (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements; and, (b) monitoring and reporting procedures to: (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation. A Monitoring Plan Format is presented in the Annex.

7.3.2 Monitoring and Reporting Responsibilities

181. The environmental performance of the project shall be regularly monitored, documented and reported. In the case of instrumental monitoring data, the original records of the results of the required instrumental environmental monitoring shall also be presented in a separate file for records.

182. For those sub-projects which required the preparation of ESMPs, it is recommended that grantees/partners, with the assistance of the environmental and social specialists of SACEP, develop a checklist for site inspections both before and during the implementation of subprojects. The checklist shall contain a list of mitigation measures to be implemented at the sites, the status of their implementation and some explanations on the status of implementation, as required.

183. On monthly basis, the grantees will present short reports on ESMPs implementation to SACEP PIU on a quarterly basis. The list of measures that are checked by the SACEP PIU environmental and social specialists when visiting the site shall correspond to the measures specified in respective subproject-specific ESMPs. Based on the reports received from grantees, the PIU will prepare annual report on ESMF and ESMPs implementation which shall be an integral part of the progress reports to be submitted to the World Bank.

184. Monitoring sections of subproject-specific ESMP will reflect:

- details of monitoring methodology, including parameters to be measured;
- monitoring and reporting procedures: to (i) ensure early identification of conditions requiring mitigation measures; and (ii) provide information on the progress and results of mitigation.

185. If any issues identified by the environmental and social monitoring, the CAP shall be developed. The CAP should contain information on a subproject, status of physical works, impact types, and the assessment of environmental and social impacts observed, and, proposed mitigation measures (if needed in addition to those specified by respective ESMPs). CAP should be prepared by the subproject grantee and approved by the PIU.

186. The SACEP PIU, being responsible for environmental and social reporting to the World Bank, will:

- Record and maintain the results of project supervision and monitoring throughout the life of the project. It will present summary progress reports on ESMF/ESMP implementation and the environmental and social aspects of subprojects on a semi-annual basis to the World Bank. This will include updates on any grievances/feedback received, during the reporting period, and on how those were addressed;
- Prepare semi-annual reports on the progress of implementation of the provisions of ESMF and measures proposed by subproject-specific ESMPs;
- In accordance with SEP, regularly inform stakeholders on the status of the project implementation and project environmental and social performance.

8. PUBLIC CONSULTATION, DISCLOSURES AND GRIEVANCE MECHANISM

8.1 ESMF Disclosure and Public Consultation

187. As part of the data gathering for the drafting of the ESA and ESMF, an initial stakeholder consultation meeting on Plastic Free Rivers and Seas of South Asia Project was held on 19th January 2020 in Male, Maldives. Various stakeholders including government, private sector, civil society, hoteliers, and NGOs participated the one-day consultation meeting. During this consultation, participants were able to identify possible stakeholder groups, ongoing complementary activities, priority areas, etc. Several plastic recycling facilities and plastic litter collection points in Sri Lanka were also visited as part of the consultation process in the drafting of this ESMF.

188. Another round of consultations in planned in Sri Lanka and Bangladesh in March 2020 prior to project appraisal where the results of the ESA and the draft ESMF will be presented for comments and further enhancement.

189. SACEP shall, along with the disclosure of the ESMF at its website, include presentation of the ESMF to the consultations that will be conducted with its partners and other stakeholders.

8.2 Grievance Redress Mechanism

190. SACEP will adopt a Policy pertinent to the Grievance Mechanism (GM) proposed for this project and will include the following key principles:

- Stakeholder engagement is vital toward ownership and sustainability of project initiatives and outcomes; thus, stakeholder feedback, including complaints, need to be heard
- Complaints shall be addressed promptly and transparently, and without retribution to the complainant
- The process of receipt, investigation, and resolution of complaints shall be fair, consistent, and respectful
- Complaints and grievances shall be resolved at the lowest possible level for resolution

191. Mechanisms to handle complaints will be provided for stakeholders and other interested parties to raise questions, comments, suggestions and/or complaints, and/or provide any feedback from all activities funded by the project. The GM may be used by i) project beneficiaries (i.e., direct or indirect beneficiaries of the project), ii) project staff including consultants, and iii) other interested parties who may use the GM to raise any concern in relation to the project.

192. The GM will be managed by the PIU establish under SACEP. Complaints may be submitted at any time during the implementation of the project. The PIU will provide the following channels where stakeholders can make a complaint:

- **Feedback page on SACEP website.** The feedback page on SACEP website can be used as feedback module, where users could send their feedback, including complaints, anonymously. SACEP will take note of these feedback and act on/resolve.

- **Dialogue with PIU Staff**. The PIU is also access points for receiving complaints. PIU staff receives the complaint and evaluates if the issue is relevant to the project and

could be resolved informally (which is the usual case for low grievance risk). If it can, the staff takes measures/advises steps to resolve the complaint. The staff records the complaint, complainant, discussion, and resolution/outcome. The document shall be signed by the PIU Lead and the complainant. Copies shall be provided to the complainant and to the PIU. If the issue cannot be resolved informally, the staff shall advise the complainant to lodge a written complaint.

- **Written Complaints**. A project email address will be established prior to project launch. The complainant may lodge a written complaint within 20 days from the date of observing/experiencing the condition that gave rise to the grievance. The document shall state the nature of the complaint and the grievance. Receipt of complaints will be acknowledged with an action plan on next steps including arrangement for a grievance meeting.

193. The PIU is responsible for recording all complaints (informal and formal), creating and updating a complaints database, and tracking the progress of complaint resolution until completion.

194. **The Grievance Meeting**. The PIU shall convene its meetings to:

- State the purpose of the meeting
- Introduce everyone and explain each one's participation in the meeting
- Explain that the content of the meeting is confidential
- State that a decision regarding the complaint shall be made after the meeting, and that the complainant shall be notified in writing
- Describe how the meeting shall be conducted
- Give the complainant the opportunity to describe the exact nature of the complaint, and state the reasons for the grievance
- Allow the presentation of any statements made by witnesses
- Ask the complainant on any suggestion to solve the problem
- Summarize the main points made, and highlight any issues that need to be investigated further

195. **Records**. The Human Resource and Administration focal person shall record the entire process, which includes:

- The nature of the grievance
- The written grievance statement
- Highlights of the grievance meeting
- Supporting documents of the meeting
- The written statement of the decisions
- Outcome of implementation of the decisions

196. **Appeal**. The complainant has the right to appeal the decision of the project management committee. The appeal must be made in writing, within 20 days of receipt of the decision. The purpose of the appeal is to provide an independent view of the complaint, and to review the decision. The Appeals Committee, constituted by the Project Steering Committee, shall receive the written appeal, convene the grievance appeal meeting, decide on the appeal, and advise the complainant in writing on the outcome of the appeal[3].

197. If the complainant does not accept the outcome of the appeal, the case will be closed. The complainant may seek redress through the courts. SACEP shall regularly report to the donor on the number of complaints received and resolved, not resolved, or referred to a third party.

9. REFERENCES

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10. ANNEXES

10.1 Environmental and Social Due Diligence Template

A. Environmental Site Risk Assessment

Instruction: As part of environmental screening, vulnerability of the site of the facility as well as the communities around the facility to specific environmental hazards will be assessed. A risk-screening template is shown below which may be used to evaluate the existing condition of the areas.

Location/Area		Date Inspected	
Contact Person		Inspected by	
Land Use and Classification of the Area:			

Hazard	Result of Screening Based on Hazard and Vulnerability Map			Information Required for Hazard Assessment
	None	Low Risk	High Risk	
Earthquakes				Earthquake susceptibility map
Liquefaction				Liquefaction potential maps
Rain-Induced Landslides				RIL susceptibility maps
Ground Shaking				Ground Shaking Potential Map
Ground Rupture				Fault line maps
Tsunami				Tsunami Hazard Map
Storm Surges				Storm surges hazard maps
Typhoons				Historical typhoon that hit the area
Flooding				Flood susceptibility map

B. Environmental and Social Checklist for Recycling Facility

Instruction: Below is the checklist of required documents that will be needed in conducting the environmental and social due diligence for a recycling facility. The applicable documents will be reviewed to check the compliance of the facility.

Location/Area		Date Inspected	
Contact Person		Inspected by	

Information/ Document Requirement	Specifics	Required ?	Status and Remarks
A. Information on Existing Facility			
1. Description of facility	• Indicate process and technology used in the plant • Type of wastes being recycled	☐	
2. Location	• Identify specific address of office and facility	☐	
B.1 Environmental Aspects			
1. Permit document	• Identify the documents (i.e., EIS, IEE, EMP) submitted or for submission to environmental agency • Submit the project's environmental management plan (EMP) and environmental monitoring plan (EMoP)	☐	
2. Pollution control system	• Describe the pollution prevention and control features of the plant (water pollution, air pollution, solid and hazardous wastes) • Indicate equipment installed with specifications	☐	
3. Environmental and socio-economic benefit of the project	• Indicate and quantify anticipated benefits of the project to the environment and surrounding communities	☐	
4. Personnel protection equipment	• Indicate the proposed personnel protective equipment to used	☐	
5. Personnel Training	• All facilities must train their personnel and staff. • List of training	☐	
6. Proper Waste Management Plan	• Emergency Contingency Plan	☐	
6. Laboratory tests	• Present the results of laboratory analysis	☐	
7. Residual wastes	• Indicate amount of waste or residuals (i.e., hazardous wastes)	☐	
B.2 Social Aspects			
1. Social safeguards documentation	• Whenever applicable, indicate the lot to be acquired (including ownership); houses to be displaced, relocated or resettled • Informal settlers to be affected • Livelihood to be affected	☐	

Information/ Document Requirement	Specifics	Required ?	Status and Remarks
	• Compensation plan		
2. Cultural property screening	• Will there be cultural, heritage, historical sites to be affected by the project?	☐	
3. Gender and Development	• Indicate number of women, PWD and children to be directly affected by the project	☐	
B.3 Proper Management Plan of Hazardous Waste			
1. Storage Management Plan	• Storage Management Plan for raw materials, residues, by-products and end-products	☐	
2. Contingency Plan	• Fire/earthquake plans	☐	
C. Permitting Required			
1.Environmental clearance	• For project covered by the country EIS system	☐	
2. Other environmental permits on water/air and hazardous wastes	• All facilities that treat, store or dispose hazardous waste must register to the government.	☐	
D. Other Documents			
1. City/district permits	• This may be in a form of city/municipal resolutions or ordinance supporting the project	☐	
2. Service Contracts or Agreement	• For projects whose component or service will be sub-contracted to a third party • Indicate validity of the contract	☐	

C. Inspection Checklist for the Storage Facility

Location/Area		Date Inspected	
Contact Person		Inspected by	

Storage Facility	Yes	No	Remarks
Is the storage area accessible, secured, enclosed but properly ventilated?			
Are the floors impermeable to liquids, resistant to attack by chemicals, not slippery, and constructed to retain spillages?			
Does the storage area have a proper signage?			
Are Safety Data Sheets available at the storage facility?			
Are the containers used compatible with their contents?			
Are incompatible waste containers separated and segregated?			
Are the containers properly labeled and legible?			
Are the labels accompanied by proper placards?			
Are all containers properly closed?			
Are all containers in good condition without leakage or damage?			
Have wastes been disposed of within the allowable accumulation time?			

D. Inspection Checklist for E-Waste Dismantlers

Location		Date Inspected	
Dismantler's Organization		Inspected by	
Year the organization was established			
Type of e-wastes collected:	☐ Computer central processing units (CPUs), desktops, and notebooks/laptop s/tablets ☐ Office electronics(fax machines, copiers, printers, scanners) ☐ LCD monitors and television ☐ Handheld electronics, including cellular phones, personal digital assistants, and peripherals	☐ CRT monitors and televisions ☐ Keyboards, mouse, speakers and other computer peripherals ☐ Household electronics and appliance ☐ Other electronic equipment Please specify:	
E-waste Sources			
Processing of collected e-wastes	☐ Transferring whole electronic waste devices for further processing ☐ Cutting cords off of devices ☐ Dismantling devices using hand tools to recycle devices or component parts ☐ Taking apart devices in order to do repairs ☐ Taking apart devices to recover parts to put into other devices or for sale ☐ Landfill for disposal	☐ Shredding whole devices ☐ Shredding component parts ☐ Dismantling or breaking open CRT devices ☐ Breaking or grinding CRT glass ☐ Smelting, melting, burning, or transforming materials ☐ Others Please specify:	

E-waste Dismantling	Yes	No	Remarks
Are the waste collectors/dismantlers aware of the toxicity of the chemicals present in the e-wastes collected?			
Are the waste collectors/dismantlers aware of the dangers and risks in handling the e-wastes particularly PBDE-related health risks?			
Is the community aware of the vulnerability of pregnant women and			

E-waste Dismantling	Yes	No	Remarks
children that are exposed to the e-wastes?			
Are trainings provided for waste collectors/dismantlers in proper handling/dismantling of the e-wastes?			
Are trainings provided for waste collectors/dismantlers on what to do in case of emergency or accidents?			
Do the waste collectors wear proper PPEs when collecting and handling the e-wastes?			
Are there safe dismantling areas provided for the dismantling of the e-wastes collected?			
Are there easily accessible and well-signed areas for the storage of the collected e-wastes?			
Are the collected e-wastes properly and orderly stored in the area?			

10.2 Environmental and Social Management Plans

A. ESMP Subproject Template

Instruction: For each project phase, potential impact of subproject activities should be listed and provided with proposed mitigating measures and the responsibilities.

(1) Potential Impacts	(2) Mitigating Measures	(3) Monitoring Parameter	(4) Details of Mitigating Measures (Schedule, Cost, Responsible Entity)	(5) Status of Compliance with Mitigating Measures
(I.e., Construction Phase)				
○ Removal of vegetation ○ Cutting of trees	○ Proposed replacement (green zones) ○ Proposed nurseries	○ Areas where nurseries and green zones are established ○ Tree Cutting Permit (if necessary)		
○ Water quality degradation ○ Air quality degradation	○ Provision of septic tanks ○ Proper drainage system ○ Watering of exposed soils to prevent dust re-suspension	○ Presence septic tank ○ No stagnant water ○ Dust re-suspension		
○ Generation of construction wastes and other solid wastes	○ Implement proper segregation, collection and disposal of solid wastes ○ Re-use of constructions waste materials ○ Provide bins for food wastes	○ Presence of bins		

B. MATRIX OF ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) for the Construction of the SACEP HQ

ENVIRONMENTAL ISSUES / POTENTIAL ENVIRONMENTAL IMPACT	PROPOSED MITIGATION MEASURE OR ENHANCEMENT MEASURE	MITIGATION COST	IMPLEMENTATION	SUPERVISION/ MONITORING	ASPECTS/ PARAMETERS TO BE MONITORED	MEANS OF MONITORING / FREQUENCY	MONITORING COST
A. CONSTRUCTION PHASE							
Acquisition of applicable permits and licenses (urban development permit, etc.)	Submission of complete requirements for the processing of all permits	Part of Contractors' bid cost	Contractor	Design and Supervision Consultant (DSC) and Project Management Unit (PMU)	Compliance to conditions of applicable permits and licenses	Provision of compliance matrix Prior to start of construction activities	Minimal cost (part of Consultant's task)
Climate Change Vulnerability of Proposed Project	Climate change adaptation measures are: i. Engineering assessment on potential site erosion; ii. Engineering assessment on potential site flooding;	Part of detailed design cost	Design Consultant	PMU	Engineering drawings and specifications	Verification of engineering drawings and specifications Once	Minimal cost (part of Consultant's task)
Complaints due to project-related impacts	PMU and the Contractors will: i. Establish the approved Project's Grievance Redress Mechanism (GRM); ii. Publicize the existence of the Project's GRM through campaigns, website, billboards, etc.; iii. Ensure that the contact details are placed on notice boards and/or website.	Part of Contractors' bid cost	Contractor and PMU	DSC and PMU	▪ Consultation meetings; ▪ Tender documents; ▪ GRM activated with Community Advisory Committees (CACs)	Verification of meeting documents, tender documents and in placed CACs ▪ After completion of meetings; ▪ Once after preparation of tender documents prepared	Minimal cost (part of Consultant's task)
Improper disposal of excavation spoils	The PMU will: i. Require the Contractor for a disposal plan;	Part of Contractors' bid cost	Contractor and PMU	PMU	Contractor's disposal plan	Inspection of disposal site Monthly	Minimal cost (part of Consultant's task)

ENVIRONMENTAL ISSUES / POTENTIAL ENVIRONMENTAL IMPACT	PROPOSED MITIGATION MEASURE OR ENHANCEMENT MEASURE	MITIGATION COST	IMPLEMENTATION	SUPERVISION/ MONITORING	ASPECTS/ PARAMETERS TO BE MONITORED	MEANS OF MONITORING / FREQUENCY	MONITORING COST
	ii. Inspect the disposal site prior to transfer of excavated spoils						
Soil erosion and sediment of construction sites	Measures to divert surface runoffs away from the exposed areas and to prevent sediments from moving offsite may include i. Small interceptor dikes ii. Pipe slope drains, iii. Grass bale barriers, iv. Silt fence, v. Sediment traps and vi. Temporary sediment basins	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Disturbed sites ▪ Use of appropriate sediment controls	▪ Visual inspection of sites ▪ Verification of plans Daily during rainy periods	Minimal cost (part of Consultant's task)
Extraction of local construction materials	The Contractor will provide enough information about the source of construction materials to be used in the Project. Sources should be: i. Licensed; ii. Covered by required government permits;	Part of Contractors' bid cost	Contractor	DSC and PMU	Government permits and licenses	▪ Visual inspection of source; ▪ Verification of government permits and licenses Monthly	Minimal cost (part of Consultant's task)
Oil and other hazardous materials releases.	Measures for storage area: i. Enclosed and has impervious floor and bund around it; ii. Located away from watercourses, flood-prone areas, work camps and danger areas; iii. Regular checking for leakage and undertakes necessary repair or replacement Measures for storage containers i. In good condition and with proper labeling; ii. Tightly sealed to avoid leakages	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Measures required to prevent accidental releases; ▪ Records of accidental releases; ▪ Measures for clean-up and handling of contaminated materials; ▪ Training records of	▪ Visual inspection of storage area; ▪ Verification of records Weekly and as necessary	Minimal cost (part of Consultant's task)

ENVIRONMENTAL ISSUES / POTENTIAL ENVIRONMENTAL IMPACT	PROPOSED MITIGATION MEASURE OR ENHANCEMENT MEASURE	MITIGATION COST	IMPLEMENTATION	SUPERVISION/ MONITORING	ASPECTS/ PARAMETERS TO BE MONITORED	MEANS OF MONITORING / FREQUENCY	MONITORING COST
	Measure for refueling and servicing area: i. Designed with impermeable floor and with sump where wash water and sludge will be collected for disposal; ii. Adequately equipped to avoid leaks and spills that could contaminate soil and water; iii. With drainage leading to an oil-water separator with regular maintenance				personnel for hazardous materials;		
On-site air pollution due to construction activities	Measures for air pollution due to construction activities: i. Regular water spraying of roads, work areas and other construction-related facilities to minimize dust generation; ii. Provision of cover in storage area of construction materials, stockpiles and spoils to prevent fine materials from being blown; iii. Prohibit use of equipment and vehicles that emit dark sooty emissions; iv. Provision of tight tarpaulin cover on delivery trucks to avoid spills and dust emission; and v. Prohibit burning of all types of wastes generated	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Dust generation ▪ Smoke emitting equipment, ▪ Open burning of materials	Visual inspection of sites and equipment Daily	Minimal cost (part of Consultant's task)
Improper solid waste management	Measures for solid waste management: i. Provision of garbage bins for domestic solid waste and temporary storage area for construction waste; ii. Segregation of solid waste into hazardous, non-hazardous and reusable waste;	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Storage area for solid waste ▪ Records of regular disposal	▪ Visual inspection of storage area ▪ Verification of records Daily	Minimal cost (part of Consultant's task)

ENVIRONMENTAL ISSUES / POTENTIAL ENVIRONMENTAL IMPACT	PROPOSED MITIGATION MEASURE OR ENHANCEMENT MEASURE	MITIGATION COST	IMPLEMENTATION	SUPERVISION/ MONITORING	ASPECTS/ PARAMETERS TO BE MONITORED	MEANS OF MONITORING / FREQUENCY	MONITORING COST
	iii. Storage area should be secured and has weatherproof flooring iv. Regular disposal of wastes to the designated landfill; v. Prohibit burning of all types of wastes generated; vi. Removal of construction wastes from the sites after work completion, and vii. Restoration of disturbed sites.						
Construction noise and vibration	Measures for construction noise and vibration: i. Prior notification to the community on schedule of construction activities especially nighttime activities; ii. Provision of noisy equipment with noise reduction covers; iii. Position stationary noisy equipment (genset, compressors, batching and rock crushing plant, etc.) away from houses and other receptors; iv. If possible, avoid working during nighttime; v. Conduct regular noise level monitoring (the limits near residential area are 55 and 45 dB(A) during daytime and nighttime, respectively)	Part of Contractors' bid cost	Contractor	DSC and PMU	Noise level Normal operation schedule	Noise meter As necessary	Minimal cost (part of Consultant's task)
Vehicular traffic congestion and hindrance to public access	Measures for vehicular traffic congestion: i. Preparation of traffic management plan and provision of traffic aid; ii. Coordinate with local authorities for any closure of roads or rerouting of vehicular traffic; iii. Provision of traffic signs in the vicinity of the construction sites;	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Traffic Management Plan (TMP); ▪ Traffic signs in vicinity of construction sites;	▪ Verification of TMP; ▪ Visual inspection of vicinity of construction sites. Daily	Minimal cost (part of Consultant's task)

ENVIRONMENTAL ISSUES / POTENTIAL ENVIRONMENTAL IMPACT	PROPOSED MITIGATION MEASURE OR ENHANCEMENT MEASURE	MITIGATION COST	IMPLEMENTATION	SUPERVISION/ MONITORING	ASPECTS/ PARAMETERS TO BE MONITORED	MEANS OF MONITORING / FREQUENCY	MONITORING COST
Community health and safety	Measures for community health and safety: i. Install barriers and signage; ii. Provision of security personnel to restrict public access; iii. Operate construction night light at the vicinity of construction sites; and iv. Provision of adequate safe passageways for the public crossing the construction sites	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Construction safety policy ▪ Hazards in the area ▪ Safety control such as signages, lightings, and barriers ▪ Health and safety records (near miss, first aid, lost time accident)	▪ Verification of construction safety policy and health and safety record ▪ Visual inspection of site Daily	Minimal cost (part of Consultant's task)
Potential social issues due to influx of workers	Measures include: i. Induction of the workers on community health and safety policy, GRM, and consultation and communication plan; ii. Implementation of protocols concerning the workers contact between the local communities; iii. Implementation of a communicable disease awareness and prevention program on the risk of disease spreading including STDs and HIV	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Implementation of workers induction, required protocols, and disease awareness and prevention program	▪ Verification of records Prior to start of work	Minimal cost (part of Consultant's task)
Pollution and health risks due to workers' camp	Measures include: i. Installation of proper sanitary facilities; ii. Implementation of proper solid waste management	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Discharge of domestic wastewater ▪ Garbage Hauling	Verification of records for garbage hauling and discharge of domestic wastewater Weekly	Minimal cost (part of Consultant's task)

ENVIRONMENTAL ISSUES / POTENTIAL ENVIRONMENTAL IMPACT	PROPOSED MITIGATION MEASURE OR ENHANCEMENT MEASURE	MITIGATION COST	IMPLEMENTATION	SUPERVISION/ MONITORING	ASPECTS/ PARAMETERS TO BE MONITORED	MEANS OF MONITORING / FREQUENCY	MONITORING COST
Occupational health and safety at work sites	Measures include: i. Implementation of construction health and safety management plan; ii. Provision of first aid station iii. Provision of appropriate personal protective equipment (PPE), iv. Providing of emergency response equipment such as fire-fighting equipment, fire extinguishers, etc. v. Provision of potable water and adequate sanitation facilities, vi. Provision of workers with adequate and well-ventilated camps, clean eating areas, and separate sleeping quarters for male and female workers.	Part of Contractors' bid cost	Contractor	DSC and PMU	▪ Construction health and safety plan ▪ First aid station, PPE, emergency response equipment and sanitation facilities ▪ Health and safety records (near miss, first aid, lost time accident)	Verification of health and safety plan and records Daily	Minimal cost (part of Consultant's task)
B. OPERATION PHASE							
Consumption of electricity and water and release of greenhouse gases into the atmosphere	Promoting green building initiatives such as: i. Provision of rainwater harvesting ii. Provision of daylight-controlled and motion-controlled lighting fixtures iii. Incorporating good ventilation in the design to reduce the energy consumed by air conditioning system iv. Use of paint that absorb harmful gases	Part of construction cost	Contractor	Engineering Department / Pollution Control Officer (PCO)	▪ Electricity and water conservation index ▪ Carbon footprint reduction	▪ Assessment of water electricity and water conservation index ▪ Assessment of carbon footprint reduction Monthly	Part of the Proponent's operational cost
Improper solid waste management	Measures for solid waste management: i. Provision of garbage bins for domestic solid waste and temporary storage area for construction waste; ii. Segregation of solid waste into hazardous, non-hazardous and reusable waste;	Part of operation cost	Operations Department	Pollution Control Officer (PCO)	▪ Storage area for solid waste ▪ Records of regular disposal	▪ Visual inspection of storage area ▪ Verification of records	Part of the Proponent's operational cost

ENVIRONMENTAL ISSUES / POTENTIAL ENVIRONMENTAL IMPACT	PROPOSED MITIGATION MEASURE OR ENHANCEMENT MEASURE	MITIGATION COST	IMPLEMENTATION	SUPERVISION/ MONITORING	ASPECTS/ PARAMETERS TO BE MONITORED	MEANS OF MONITORING / FREQUENCY	MONITORING COST
	iii. Storage area should be secured and has weatherproof flooring; iv. Regular disposal of wastes to the designated landfill; v. Prohibit burning of all types of wastes generated;					Daily	
Impact on water quality of receiving body of water from discharge of untreated wastewater	Installation of Sewage Treatment Plant (STP)	Part of construction cost	Contractor	Engineering Department / Pollution Control Officer (PCO)	▪ Operation of STP ▪ Significant effluent parameters	▪ Regular inspection of equipment ▪ Analysis of wastewater by accredited 3rd party laboratory Monthly	Part of the Proponent's operational cost
Public health risk due to unplanned outages and emergencies of STP	Mitigating measures include: i. Identification of potential cause; ii. Provision of written management procedures iii. Regular inspection and maintenance of the backup power supplies and its Automatic Transfer Switch (ATS) iv. Provision of written standard operating procedures (SOPs) v. Regular training of STP personnel on how to handle unplanned outages and emergencies	Part of operation cost	Operations department (STP personnel)	Pollution Control Officer (PCO)	▪ Written management procedures ▪ Records of inspection and maintenance of backup power supplies ▪ SOPs ▪ Records on training of staffs	▪ Verification of management procedures, SOPs and records Weekly verification ▪ Records of inspection and maintenance ▪ Implementation of SOPs	Minimal cost

C. Environmental and Social Management Plan Template for E-Waste Recycling Facility (Construction and Operation)

Instruction: For each project phase, potential impact of activities should be listed and provided with proposed mitigating measures and the responsibilities

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
I. Construction Phase						
Dust emission from the civil works and movement of vehicles.	Air People	Air pollution	Dust control at the stock pile of aggregates through regular water sprinkling	Proponent/ contractor		TOR with contractor
Erosion and surface soil runoff	Land Water	Water pollution	Provision of silt traps Cleaning of gutters and canals	Proponent/ contractor		TOR with contractor
Impact of construction activities on welfare and safety of workers and passersby.	People	Health and safety of workers	• Require contractors and workers to undergo Safety/IMS/Environmental/ Security orientation. • Application of Permit to Work system prior to project start-up Provision of scaffoldings, safety nets, and other materials for protection and safety. • Wearing of safety gadgets such as hard hats, gloves, safety belts, rubber boots, goggles, etc. will be a mandatory requirement for workers. • Posting of safety signs/reminders in strategic areas within the construction area Installation of sufficient lighting in dark areas.	Proponent/ contractor		TOR with contractor Permit to Work
Generation of construction debris and other solid wastes	Land People	Solid and hazardous wastes generation	• Collection and recycling of construction wastes. • To be offered to junk shops as scrap material. • Handling and storage of potential contaminants under strict conditions	Proponent/ contractor		TOR with contractor

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
II. Operation Phase						
Increased volume and pollution load into the receiving body of water.	Water	Water pollution	• Installation of septic tank for domestic wastes or connect to sewer lines • Provision for closed-loop system for process wastes.	Proponent		ECC or equivalent permits
Emissions from the operation of the reaction vessels, spray treatment chambers, and standby generator unit.	Air	Air pollution	• Provision of fume hoods and air pollution control facility using activated carbon filters. • Implementation of closed-loop system. • Continuous and automatic per-chloroethylene monitoring system (when necessary and applicable) • Provision of generator sets with mufflers and enclosure with soundproof acoustical walls and ceiling.	Proponent		Secure Permit to Operate
Explosion and other fire hazards from equipment/vessel failure	Air Land People	Pollution/ Fatality	• Design of emergency preparedness and response plan. • Provision of fire safety equipment, water sprinkler system, fire exits, and other requirements of the Fire Code	Proponent		Detailed project plans
Generation of non-recyclable plastics and other residues	Land	Solid waste	Implementation of waste segregation and disposal of residues to landfill or make necessary arrangement for use as refused derived fuel (i.e., incineration)	Proponent		Contract with solid waste hauler
Generation of residues with potential PBDEs content (i.e., dismantled CPU, CRT monitors)	Land, Water, People	Generation of toxic plastic (e-waste) residues	Segregate and store properly, all e-wastes identified or suspected to contain PBDEs (i.e., dismantled CPU, CRT monitors) and coordinate disposal to government accredited e-waste residues treatment facility.	Proponent		Contract with solid waste hauler