Grant Programme against Marine Litter 2020

Project proposal

to the

Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU)

<u>Pr</u>evention of <u>Mar</u>ine Litter in the Caribbean Sea (PROMAR) – Promoting Circular Economy Solutions in the Dominican Republic, Costa Rica and Colombia

submitted by

adelphi research gemeinnützige GmbH

Please enclose the following attachments:

Berlin, 30 September 2020

\boxtimes	Annex 1: Political partner(s)/Implementing partner(s)/Subcontractor(s)
\boxtimes	Annex 2: Application of the ZUG environmental and social Safeguards based on the GCF Safeguards
	Annex 3: Expenditure and financing
\boxtimes	Annex 4: Gantt chart on the project schedule
	Annex 5: Organisation Chart of the Structural Arrangement of the project constellation

Stamp

Legally binding signature Nanne Zwagerman

1	Project master da	ata			
1.1	Project	Project number	2020 F	REG PROMAF	 ?
	·	Project title	Sea (Pl Solution	ROMAR) – Pro	Litter in the Caribbean omoting Circular Economy nican Republic, Costa
		Country/ countries of implementation Project duration	replicat activitie the Wid	ion, policy dial	G
		Details on project funding Own funds:			0F 000 00 C
		Own tunds: External funding:			25.000,00 € 0,00 €
		Third-party grants:			0,00 €
		, , ,	Subtotal:		25.000,00 €
		BMU funding volume		2020	66.219,59 €
				2021	1.621.956,32 €
				2022	1.733.577,49 €
				2023	1.472.934,50 €
			Subtotal:		4.894.687,90 €
		Total funding	volume:		4.919.687,90 €
		Partner	funding:		3.009.233,61 €
1.2	Main	Name	adelphi r	research geme	einnützige GmbH
1.2	implementing	Department	N/A	cocaron gome	minutzigo dinibiri
	organisation (Submitter)	Street, No.	Alt-Moab	sit O1	
		Postal Code, town/city			
		•	10559 Berlin		
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		Website	https://w	ww.adelphi.de	<u>e/en</u>
		Institution	Researc	h Institute	
		Legal structure	Non-prof	fit limited liabili	ity company (gGmbH)
		Non-profit status	$oxed{\boxtimes}$ yes	☐ no	
		Total staff	108		

Staff for the project 6

Year established 2001

Turnover [EUR/year] 9.609.521,00 EUR

Experience in the target region 5

[years]

Experience in activities 19 relevant to the project [years]

Role/ function of submitter in the project proposed

- Lead applicant adelphi will be in charge of the overall project management and coordination, including monitoring and reporting vis-àvis ZUG's designated programme manager for the grant programme on marine litter prevention.
- To facilitate on-ground interactions with the implementing partners, adelphi will deploy a Spanish-speaking long-term expert in one of the target countries, acting as focal point and team leader. In addition, the team leader will be supported by Spanish-speaking long-term experts from the back office in Germany, who will conduct regular trips to all of the countries and will be in steady communication with the team leader and all country partners.
- adelphi will lead the implementation of activities A I.3, A II.1, A III.4, A IV.1 and A IV.4; supporting the implementation of all other activities

1.3 Political Partner institutions for embedding the project in the country of implementation/ in the target region¹

Dominican Republic

 Ministerio de Medio Ambiente y Recursos Naturales de la República Dominicana/Ministry of the Environment and Natural Resources

Role in the project: The partner will provide technical assistance for the implementation of the project, as well as make available public institutional support to carry out the programmed activities. Likewise, the partner will facilitate the granting of necessary permits and will ensure that the programme is mainstreamed with the relevant national and local public policies.

Contact person: José Ramón Reves. Coastal and Marine Viceminister

 Dirección General de Proyectos Estratégicos y Programas Especiales de la Presidencia/Directorate for Strategic Projects and Special Presidential Programmes

Role in the project: The partner can collaborate with the mainstreaming of the pilot program in the government's public policies, facilitating its sustainability and scope. It can facilitate the scenario to involve public and private institutions related to the issue, and also promote the strengthening of capacities between the central government and local governments on the integrated management of solid waste.

Contact person: José Leonel Cabrera Abud, Minister

Costa Rica

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Ministerio de Salud/Ministry of Public Health

Role in the project: This Ministry has the rectory on policies and laws regarding integrated solid waste management. According to the organizational structure of the Ministry the Directorate of Radiological Protection and Environmental Health is in charge of waste management. Under this capacity the Directorate, will be the first contact point for coordination of project activities in order to guarantee its alignment to national priorities.

¹ Please complete the master data for all political partners in Annex 1.

Contact persons: Eugenio Androvetto Villalobos, Director, Directorate for the Protection of the Human Environment; Ricardo Morales Vargas, Chief of Environmental Health Unit. Directorate for the Protection of the Human Environment Vice Ministerio de Aguas y Mares/Vice Ministry of Water and Seas (branch of the Ministry of Environment and Energy) Role in the project: This branch is in charge of policies and laws regarding the sustainable management of coastal marine national resources, and has an active role promoting sustainable production and consumption modalities that supports the prevention and correction of actions that may harm the human health, attacking natural resources or affecting the environment in general. Under close coordination with the Ministry of Health, as rector on solid waste, this Vice Ministry supports initiatives aimed at preventing the arrival of solid waste into the seas. The Vice Ministry of Water and Seas will provide the political endorsement to ensure actions are aligned to national policies and strategies and facilitate the development of public policies that are relevant for long term sustainability of the project's outputs. Contact persons: Haydée Rodríguez Romero, Vice Minister of Waters and Seas; Gabriel E. Rodríguez Castillo, Technical Advisor to the Vice Ministry of Water and Seas Colombia Ministerio de Ambiente y Desarrollo Sostenible (MADS)/Ministry of **Environment and Sustainable Development** Role in the project: The role of the political partner is to give feedback on the technical and political aspects of the project according to the context, strengths and weaknesses of Colombia. It will also create synergies between the public sector, private sector, academy and the civil society in order to create capacity building and assure the sustainability of the project. In addition, the ministry will provide the political endorsement to ensure actions are aligned to national policies and strategies and facilitate the development of public policies that are relevant for long term sustainability of the project's outputs. Contact person: Carlos Jairo Ramírez, Coordinator of the Sustainability Group of the Productive Sectors Parley República Dominicana (Parley) Implementing 1.4 partners and ☐ Subcontractor subcontractors² Capabilities and experiences relevant to the project Parley República Dominicana coordinates the largest network of beach and river clean-ups in Dominican Republic. Since 2018, Parley has held 102 cleanings nationwide. Parley has also supported the national logistics for the recovery of solid waste, through the interception of plastics in schools and communities, as allies of the government programme "Dominicana Limpia". Moreover, Parley held the "Ocean Plastic Index research" along with the Jambeck Research Group for monitoring litter and plastic leakage into the environment. At the political level, Parley closely collaborates with the Ministerio de Medio Ambiente y Recursos Naturales, the Dominicana Limpia programme, the Federación Dominicana de Municipios (FEDOMU) and the Autoridad Nacional de Asuntos Marítimos (ANAMAR) in offering a comprehensive response to the situation of plastic waste and marine litter prevention in the Dominican Republic. Through its mother entity Parley for Oceans (based in the USA - more information below), Parley will make all knowledge, tools, networks available to the entire consortium and backstopping capacities throughout the entire project duration. Parley for the Oceans is an environmental organization that is a global

network of creators, thinkers and leaders from brands, governments and

² Please complete the master data for all implementing partners and subcontractors in Annex 1.

environmental groups who come together to raise awareness for the beauty and fragility of the oceans and collaborate on projects that can end their destruction, founded in 2012. Together with leading material experts, labs and innovators, Parley for the Oceans gives plastic waste new life in ways that reduce the use of virgin plastics and catalyze awareness, funding and eco innovation toward long-term change.

Parley for the Oceans creates change by implementing the Parley AIR Strategy to Avoid, Intercept and Redesign plastic. The main pillars of the AIR strategy are education and communication, direct impact through cleanups and interception, product innovation and material science. Through Parley's Global Cleanup Network, Parley conducts cleanups in nearly 30 countries and with over 1,000 partners. Parley programs also aim to educate and empower communities, and especially youth, in the movement to end marine plastic pollution.

Parley for the Oceans developed the first global supply chain for upcycled marine plastic debris and introduced Ocean Plastic®, a range of eco-innovative materials which champion our vision for the Material Revolution. Ocean Plastic® is created from upcycled plastic waste intercepted by local Parley entities from remote islands, shorelines, waters and coastal communities. As a catalyst for progress and an immediate replacement for virgin plastic, Ocean Plastic® raises awareness as well as funding for education and eco-innovation initiatives supporting long-term solutions to marine plastic pollution. Our materials aim to inspire and empower the creative industries to build a better future.

Products made from Parley Ocean Plastic® become symbols of change, raising awareness and funding the fight against marine plastic pollution. Collaborations include a range of products made by Adidas and worn by athletes and teams including Manchester United and Real Madrid, and also have been featured at the Australian Open. With American Express, Parley for the Oceans created the world's first credit card from Ocean Plastic® and first PET credit card. Since 2012 Parley collected and intercepted over 3,000,000 kg of plastic with the help of over 250,000 volunteers in more than 4,000 clean-ups all over the world.

- <u>Function/ role in the project proposed</u>
 Country coordination for implementation of activities the Dominican Republic, incl. interaction with political partners and adelphi as lead organisation; deployment of long-term experts in the Dominican Republic acting as focal point for communication and coordination with project lead; support ABRELPE in transnational networking, replication and dissemination activities; leading the implementation of activities A I.1, A I.3, A II.2, A II.3, A III.1, A III.3, A IV.1, A IV.2, A IV.3 and A IV.4
- Supporting the implementation of activities related to A I.1, A I.2, A II.1, A III.2 and A III.4

CEGESTI

•		Subcontractor
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• Capabilities and experiences relevant to the project

CEGESTI has an interdisciplinary team of experts with extensive experience providing technical advice, training and facilitating public policy on integrated solid waste management for public institutions, local governments, private sector and communities in Costa Rica, Central America and the Caribbean region. In the past, CEGESTI has collaborated closely with various German technical cooperation agencies on a number of projects (e.g. as reflected by the AL-Invest Initiative in 2006 and the CYMA Program in 2007). As part of these projects, CEGESTI helped to develop Costa Rica's 15-year National Waste Management Plan and provides the necessary implementation support to institutions and other participants from the public and private sector. CEGESTI is a member of the Climate and Clean Air Coalition.

<u>Function/ role in the project proposed</u>
 Country-level coordination for implementation of activities in Costa Rica, incl. interaction with political partners and adelphi as lead organisation; deployment of long-term experts in Costa Rica acting as focal points for communication and coordination; leading the implementation of activities A

I.1, A I.3, A II.2, A II.3, A III.1, A IV.1 and A IV.2; supporting the implementation of activities A I.2, A II.1, A III.2, A III.4, A IV.3, A IV.4 and A IV.5
Centro Nacional de Producción Mas Limpia (CNPML) Colombia – National Cleaner Production Centre Colombia
 ■ Implementing partner □ Subcontractor
• Capabilities and experiences relevant to the project CNPML has a wide experience formulating and implementing sustainability projects. CNPML, over the last 22 years, has implemented multiple contracts of international cooperation with agencies and governmental entities such as UNIDO, UNEP, EMPA, SECO, SDC, GIZ, USAID, US DoS, US EPA, among others, as well as National projects/agreements with public and private enterprises in Colombia. CNPML has a wide national and international network of allies, ranging from the Network of Cleaner Production Centres under UNIDO to governmental institutions in Colombia (e.g. the Ministry of Environment and Sustainable Development). Related to waste management, Extended Producer Responsibility (EPR) and circular economy, CNPML has developed and implemented several projects in collaboration with both national and international partners. Some
of the most relevant include: - formulation of a manual to guide the implementation of circular economy tools in companies in cooperation with "Colombia Productiva", a national entity attached to the ministry of commerce, industry and tourism; - various technical assistance programmes for companies in the private sector supporting initiatives that promote waste reduction and circular economy principles in cooperation with the ministry of commerce, industry and tourism; and - strategic environmental education actions within the framework of scientific and technological promotion for the strengthening of educational institutions, involving the participation and communication component in the construction of collective knowledge regarding integrated solid waste management in cooperation with regional autonomous corporation of the Sinú valley.
 Function/ role in the project proposed Country coordination for implementation of activities in Colombia, incl. interaction with political partner and adelphi as lead organisation; deployment of long-term experts in Colombia acting as focal points for communication and coordination with project lead; leading the implementation of activities A I.1, A I.3, A II.2, A II.3, A III.1, A IV.1 and A IV.2; supporting the implementation of activities A I.2, A II.1, A III.2, A III.4, A IV.3, A IV.4 and A IV.5
ABRELPE
 ■ Implementing partner □ Subcontractor
 Capabilities and experiences relevant to the project ABRELPE is a national non-governmental and not-for-profit association, established in 1976. Based in Sao Paulo, Brazil, the association congregates urban cleansing and waste management companies in all its areas. ABRELPE's mission is to promote the technical and operational development of the waste management sector, always based on environmental and sustainable directives.
Since 1996 ABRELPE is the National Member of the International Solid Waste Association (ISWA) in Brazil, playing an active role within the association by supporting and cooperating with its projects. In addition, ABRELPE is an active member of the Climate and Clean Air Coalition. In these functions, ABRELPE has established extensive connections and networks with several institutions in different countries all over the world, including Central and Latin America as well as the Wider Caribbean Region. ABRELPE is one of the founding members of the Ibero-American Network for Waste Management, founded in 2005 between institutions in Brazil, Argentina, Portugal and Spain, which has organized 5 congresses with

technical visits aiming at providing capacity building to representatives from the involved countries. In 2008 the Solid Waste Management Latin American Regional Development Network was created and ABRELPE has been chosen as its first Secretariat, established until 2011, with the role to integrate and develop knowledge and initiatives within the region. Then, in 2012 ABRELPE was selected as the regional Secretariat for the South American branch of the International Partnership for Expanding Waste Management Services to Local Authorities - IPLA, a coalition under the UNCRD, with the aim to assist, support and develop local projects towards better waste management. Moreover, ABRELPE has coordinated several projects aiming at reducing short-lived climate pollutants (e.g. arising from mismanaged waste) and has partnered with the UN Environment Office for Latin America and Caribbean to i) prepare Strategy to Organic Waste Management all over the region and ii) structure the Coalition to Close Dumpsites in the different countries.

Function/ role in the project proposed

Leading the implementation of activities A III.2 and A III.3; ABRELPE is responsible for transnational networking, replication and dissemination activities. The organisation has staff and back-office with sufficient administrative and technical background in leading international study tours and coordinating a network of municipalities committed to improving waste management systems. ABRELPE is based in Brazil and does not yet operate in any of the three target countries. Given that is has vast experience in facilitating international exchange on waste management and marine litter prevention, ABRELPE will acts as a neutral facilitator promoting transnational networking and replication between and beyond the Dominican Republic, Costa Rica and Colombia.

Supporting the implementation of activities A I.1, A I.2, A II.3, A III.4 and A IV.1-IV.5: ABRELPE has successfully implemented pilot projects in marine litter prevention across Brazilian cost under the Lixo Fora D'Água Program supported by the Swedish EPA. They are related to a marine litter database, beach user's behaviour change and social inclusion dialogue in irregular settlements, as well as proposals for integrated governance frameworks to prevent the generation of marine litter at the source.

1.5 Project constellation

Lead applicant adelphi will be in charge of the overall project management and coordination. To fulfil this role, adelphi will deploy a Spanish-speaking long-term expert in one of the target countries, acting as focal point and team leader. In addition, the team leader will be supported by Spanish-speaking long-term experts from the back office in Germany, who will conduct regular trips to all of the countries and will be in steady communication with the team leader and all country partners.

This will comprise of an initial kick-off meeting with all partners and periodic review meetings held twice a year, both at distance and in person. In addition, the project team will periodically review and revise action plans and timelines and hold monthly update calls. Further, templates and checklists will be developed in order to ensure that events are organised, documented and evaluated in a structured manner. A project ID will be created from the onset of the project. These activities will be complemented by continuous communication amongst all partners and external experts via email, instant messenger services (e.g. WhatsApp) and Voice-over-IP systems (e.g. Skype, ZOOM). Finally, project management and coordination also entails holding up a direct line of communication with designated staff at ZUG, as well as formal requirements for narrative and financial reporting.

In turn, partners from the Dominican Republic, Costa Rica and Colombia will deploy long-term experts at their end in order to coordinate all in-country activities and liaise with the political partners. Each partner has been assigned with leading and supporting roles for the implementation of activities related to various project outputs. The organisational structure is summarised in the figure below.

adelphi research (Lead) · 1 long-term international expert in the Caribbean (Team Leader, Spanish-speaking) 1 long-term national expert in the Caribbean (support to team leader, professional English) · 2-3 long-term experts from Berlin back-office (Spanish-speaking) 1-2 administrative staff from Berlin back-office · Pool of short-term experts for specific technical assignments · Coordination, monitoring and reporting in close cooperation with ZUG coordination and exchange steering, monitoring, evaluation **CEGESTI** (implementing partner Costa Parley Dominican Republic (implementing Rica) partner DR and network) coordination and exchange 2-3 long-term experts based in Costa Rica 3-4 long-term experts based in the DR 1-2 administrative staff based in Costa Rica 1-2 administrative staff based in the DR · Pool of short-term experts for specific Technical support and knowledge transfer technical assignments through Parley for the Oceans (US) Pool of short-term experts for specific technical assignments ABRELPE (implementing partner for networking and replication) CNPML (implementing partner Colombia) · 2-3 long-term experts based in Brazil 3-4 long-term experts based in Colombia · 1-2 administrative staff based in Brazil 1-2 administrative staff based in Colombia Pool of short-term experts for specific technical assignments Secretariat of the Cartagena Convention · Proposed additional implementating partner which can be brought on board in 2021 Focusing on WP III and IV, supporting and collaborating with other partners Figure 1: Organisational chart of the project

2 **Project classification** 2.1 Thematic priority 1) Preventing the production of waste, in particular plastic waste. of the project 2) Ensuring an orderly collection and registration of waste, and where possible high-quality material recycling. 3) Reducing the input of plastic waste from other significant point sources. \boxtimes 4) Building relevant capacities in the partner countries. 5) Reducing the total net mass of plastic or other litter (kg) entering the natural environment. 6) Reducing the number of plastic particles per volume of water (including microplastics). 7) Preventing litter discharges that pose a threat to particularly ecologically valuable marine and coastal areas and/or to particularly endangered marine species. 2.2 Project impact The project will contribute to marine litter prevention at national and regional levels in on marine litter all three target countries and the Wider Caribbean Region. At national level, the project will collect at least 3,000 tonnes of single-use plastic and packaging materials for closed-loop reuse and recycling through beach clean-ups and consumer awareness campaigns. Hence, this waste is intercepted before entering riverine/marine environments where it would become marine litter. At regional level, the project will avoid the generation of marine litter by implementing circular economy solutions at selected demonstration sites. Since the nature of these solutions will be elaborated together with political partners and decision-makers, a specific estimate cannot be given at this point in time. Instead, the project team will establish a baseline for waste/marine litter generation in the first year of implementation. Based on subsequent feasibility assessments, absolute and relative reduction values will be formulated, thus leading to a reduction of x% and y tonnes of marine plastic pollution by the end of the project period. 2.3 Sustainable To "conserve and sustainably use the oceans, seas and marine resources for sustainable development" is the declared goal of SDG 14 which is further Development Goals (SDGs) substantiated in SDG 14.1 specifically requiring a significant reduction of marine debris by 2025. The goal to reduce plastic waste entering the Caribbean Sea in the short and long-term lies at the core of the proposed project. In order to address the issue in a comprehensive and sustainable way, the project approach involves multiple levels with key stakeholders from the public and private sector, as well as civil society. An improved understanding of plastic flows from terrestrial sources to the sea, paired with adequate economically viable technical solutions to prevent marine litter and to gear the economy as a whole towards more circular structures with improved waste collection and management systems, suitable framework conditions and incentives for less plastic waste generation, recycling and reuse, supported by increased public awareness on the issue lie the groundwork for a fundamental change and less plastic waste inputs to the Caribbean Sea, whilst supporting inclusive sustainable economic growth and innovation.

Healthy, pollution-free oceans are a goal in itself, but also essential to achieve most other SDGs, particularly those related to ending hunger, improving nutrition and ensuring livelihoods. The following section therefore gives a brief overview over how the prevention of plastic waste in the Caribbean Sea will contribute to the achievement of the SDGs. It is to be noted that the order is not related to the relevance of the project's contribution, but rather follows a numeric order.

SDG 2 "End hunger, achieve food security and improved nutrition and promote sustainable agriculture": The pollution of the ocean through plastic waste has a direct impact on the health of marine ecosystems and consequently on all human activities dependent on them. Especially coastal communities rely on healthy marine ecosystems for their economic survival and the provision of staple food supply.

SDG 3 "Ensure healthy lives and promote well-being for all at all ages": Plastic particles have been found in the most remote places of our planet, including the digestive systems of many fish and other marine animals consumed by humans. The exact health implications are not yet fully understood, but there is concern that toxins might be transferred through digestion. Especially coastal communities that consume

seafood as their staple food might be exposed to health concerns. Besides, plastic debris in the ocean poses a significant navigational hazard possibly leading to deadly accidents.

SDG 6 "Ensure availability and sustainable management of water and sanitation for all": Rivers and other water bodies are often the first destination of plastic waste before ending up in the ocean. The harmful effects on these freshwater bodies is therefore closely entangled with the marine litter issue, and will be addressed by the

project through improved monitoring of plastic waste flows, improved waste management systems and measures to prevent the generation of plastic waste.

SDG 8 "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all": Marine debris leads to direct costs, such as municipal spending for beach clean-ups, as well as indirect economic losses caused by marine plastic, e.g. on fisheries, shipping and the tourism industry. All these are factors that must be taken into consideration here. A well-managed waste sector, on the other hand, has the potential to promote sustained, inclusive and sustainable economic growth creating new employment and driving innovation. The project does contribute to SDG 8 in several ways: negatively impacted sectors will be relieved through a reduction in plastic waste generation, an improvement in waste collection and waste management reducing plastic waste escaping to the (marine) environment. All pilot measures of the project will be implemented in partnership with public and private actors, as well as local communities, and informal workers who are considered key beneficiaries of the project.

SDG 9 "Build resilient infrastructure, promise inclusive and sustainable industrialisation and foster innovation": Increased linear economic growth in low and middle income countries intensifies the pressure on already overburdened waste management systems. The project will initiate first steps to gear the countries' economies towards more circularity by creating value chains for the utilisation of secondary raw materials from plastic waste. The solutions piloted in the project are economically viable and due to their replicability have the potential to be a driver for new sustainable employment opportunities and innovation. The induced changes of the project, especially with regards to framework conditions and capacity building of governing bodies and decision-makers on circular economy will go beyond the direct impacts of the pilot sites and incentivise producers to rethink packaging options and business models. The project will hence reduce the quantity of waste generated and improve the management of the waste focusing on innovation and sustainable jobs creation.

SDG 11 "Make cities and human settlements inclusive, safe, resilient and sustainable": SDG 11.6 specifically refers to waste management and the massive contribution mismanaged municipal solid waste in cities plays with regards to plastic waste in the marine environment. The project aims at improving waste management systems in an economic sustainable and inclusive way which should make cities cleaner and safer spaces and reduce their role in marine plastic litter generation.

SDG 12 "Ensure sustainable consumption and production patterns": Preventing plastic waste, once generated, from entering the ocean by improving waste collection and management is an important part of preserving marine ecosystems. To tackle the issue in the long-run, however, the way we produce and consume plastics has to be transformed significantly. The project builds capacities of governing bodies and decision-makers in order to establish framework conditions that establish incentives for circular business models and waste prevention, recycling and reuse. Increase public awareness on the subject as well as extended producer responsibilities are powerful tools to also get the private sector on board of this transition.

2.4	Environmental
	and social
	safeguards

☐ A – High Risk
☐ B – Medium Risk

□ C – Low Risk

The project applicant is obliged to adhere to the ZUG environmental and social safeguards based on the Green Climate Fund (GCF) (interim IFC Performance

Standards).³ The adherence to environmental and social safeguards has to be described in the yearly project reports. Any changes to the significance of risk for each Performance Standard and/or the overall risk category during project implementation have to be communicated immediately.

3 Brief description

3.1 Structured brief description

The goal of the project is to reduce flows of plastic waste (mainly packaging) from terrestrial sources in the Dominican Republic, Costa Rica and Colombia into the Caribbean Sea. To this end, the project will quantify and map plastic waste streams and anchor monitoring systems at governing local authorities in selected demonstration sites. Based on established baselines, the project team will implement pilot circular economy solutions to achieve a measurable reduction in plastic waste entering aquatic environments at all sites. The project will strengthen political partners' capacities to implement Extended Producer Responsibility (EPR) systems and support their contributions to international dialogue processes. Due to the transboundary effects of marine pollution, the project will replicate successful pilot cases in other areas beyond the demonstration sites and increase the public's awareness in order to avoid, collect and intercept marine litter in coastal areas.

4 Project concept

4.1 Starting situation and challenges

4.1.1 Starting situation in the target region/ target countries

The Dominican Republic, Costa Rica and Colombia share common access to the Caribbean Sea. Due to the economic importance of tourism industries, fisheries and maritime transport, the consumption of Fast Moving Consumer Goods wrapped in single-use plastic packaging is high. Inadequate collection and disposal has given rise to wide-spread public concerns about pollution levels and marine debris in the Caribbean Sea. All three countries are Contracting Parties to the Cartagena Convention and have committed to address marine pollution from solid waste and plastics. In addition, the Dominican Republic and Costa Rica have also ratified the Land-Based Sources of Marine Pollution (LBS Protocol) which entered into force in 2010 and calls for governments to take all action in order to control, reduce and prevent marine pollution including from solid waste and plastics.

Studies have measured the concentration of plastic litter across the Caribbean and found as many as 200,000 pieces of plastic per square kilometre in the north-eastern Caribbean. Most of this litter originates from the Caribbean countries as well as from northern waters. These plastics settle throughout the water column, fragmenting into micro plastics that can seriously harm marine life. On average, 2,014 littered items were found per kilometre of beaches and coastal areas, most commonly including plastic bottles (21%), other single-use plastic items and foam containers. Abandoned fishing gear is another critical form of marine litter and is considered the main source of plastic waste in the marine environment coming from the fisheries and aquaculture sectors.

Dominican Republic:

The Dominican Republic has more than 350 open-air dumps and is generally regarded as the country in the Latin American and Caribbean region with the 4th highest generation of waste per person. The poor location of the open-air dumps and the absence of infrastructure based on the country's production and consumption schemes has led to a high rate of mismanaged municipal solid waste (MSW) causing serious plastic pollution in the country, where remote areas have limited or little access to the waste collection systems. The Haina River ranks amongst the largest and most polluted rivers in the country.

According to national estimates, 20% of the waste that reaches the rivers is plastic waste, mostly packaging used in the food industry. Due to the country's poor infrastructure for solid waste management, waste generated by communities and industries ends up polluting the country's rivers in a significant manner. The current

³ IFC Performance Standard 1, however, is not applicable in the context of the Grant Programme against Marine Litter.

scenario of solid waste management is characterized by a dominant informal sector (waste divers), who carry out the work of collecting and separating waste directly from the dumps and have limited infrastructure and technology for the formalization of the sector.

On the other hand, the Dominican Republic is one of the most frequented tourist destinations in the region, generating an economy that takes advantage of the use of its coastal and marine ecosystems as a source of income for the country. According to metrics from the World Bank, litter concentration on beaches of the Dominican Republic has been recorded to be the 2nd highest in the Caribbean region becoming a threat to the tourism sector that generates numerous jobs and benefits for the Dominican Republic's economy.

Costa Rica:

Some 20 years, Costa Rica embarked on a path towards strengthening the integrated management of solid waste. This made it possible to create a legal framework for integrated solid waste management based on laws, regulations and guidelines, define responsibilities for the different actors (municipalities, companies, citizens), and create awareness about the need to reduce waste. These activities are linked to the country's policy of protecting natural resources and achieving a low-carbon economy that stimulates new forms of sustainable consumption and production (SCP) as well as circular economy solutions.

The country has made significant progress, but current waste management practices and their contribution towards prevention of marine litter are still insufficient. Waste management is not comprehensive in several fields, the rate of collection is low (leading to leakages of waste into marine and riverine environments) and incentives to avoid waste generation are lacking till date. Hence, the contamination of the rivers continues; in fact, the Tárcoles River is the most polluted river in Central America. The beaches, a great tourist attraction in the country, are polluted by plastic packaging and the seas receive an increasingly growing amount of agrochemicals and inorganic waste, particularly plastic.

Studies carried out by the University of Costa Rica show that plastic account for the highest share of waste at Caribbean beaches (higher than glass, metal, cellulosic materials). In addition, micro-plastics have been identified in the sands of five beaches in the Caribbean Sea, among which are mainly polyethylene and polystyrene. For example, in Cieneguita, in the centre of the city of Limón in Costa Rica, 120 types of micro-plastics were identified per 100 meters of sand. In addition, 96 types were found per square meter and 52 types per kilogram of sand. In 2018, a UNDP study confirms that in Costa Rica 440 tons of plastic are deposited in the sea daily.

In response to this situation, the country has approved the national strategy for the substitution of single-use plastics and law n°9786 to combat plastic pollution and protect the environment in 2019. This law prohibits the use of plastic straws, plastic bags, and plastic bottles, but has not yet entered into force.

It is important to take into account that Costa Rica is the largest importer of plastic in Central America and is home to 56 companies that produce disposable plastics. According to a survey carried out by the Foreign Trade Promoter in 2019, companies are willing to introduce raw materials and products that are environmentally friendly, but consumers currently do not follow adequate disposal practices and thus plastic continues to end up in rivers and seas.

In terms of the Extended Producer Responsibility (EPR), the concept was regulated even before the approval of the law on Integrated Waste Management no.8839 (2010). For example, the Waste Tire Regulation no. 33745 was approved in 2007 and Electronic Waste Regulation no. 35933-S months before the law. Law no.8839 formally introduced the principle of EPR: Producers or importers are responsible for a product throughout its entire life cycle, including the post-industrial and post-consumer phases. Nevertheless, for the purposes of this Law, this principle shall apply only to special handling waste. The regulation concerning special handling waste (no. 38272-S) was approved in 2014. In this regard, there is a need to advance the EPR concept in terms of awareness, implementation and in regulation for other type of wastes (especially single-use plastics and packaging).

Colombia:

In Colombia, it is estimated that about 65% of municipal solid waste (MSW) generated in coastal areas are inadequately managed. A main features of the country's marine pollution profile the Magdalena river. Its basin occupies 24% of the continental territory of the country. 11 of the 32 departments of Colombia are located in this basin in which 49% of the population lives. As such, the Magdalena river represents the most important fluvial artery in the country and can be understood as one of the main development items guaranteeing the sustainability of the local communities establishing complex economic, social and environmental dynamics. Since the pre-Columbian era, the communities settled along the river side using the river as a transportation medium and taking advantage of biotic and abiotic factors that the river ecosystems has to offer.

According to a local analyses, more than half of the 128 river municipalities of the Magdalena River pour their served waters without any kind of treatment. In addition, 9 out of 10 of the river municipalities throw the waste produced by local slaughterhouses into the river. According to the national attorney's office, the human settlements and their productive activities have caused several environmental impacts along the river, such as the contamination of soil and water as well as the loss of biodiversity. Based on local estimations, Magdalena River is the biggest waste contributing river in Latin America and carries about 16,700 tons of plastic/annum into the Caribbean Sea.

Some of the most relevant commons issues include isolated, uncoordinated and interrupted efforts from the local authorities; a lack of integrated public policy which promotes the sustainable development of the Magdalena river basin; the absence of appropriate waste managing systems in the municipalities; and, the lack of environmental education amongst the population, translating into inadequate disposal practices of municipal solid waste (MSW) and intrusion of plastics in marine environments. To address these issues, the government of Colombia launched an EPR policy for packaging material, which requires producers to reduce packaging by 30% by 2030. The policy is yet to be fully implemented.

4.1.2 Project integration into strategies of the target country

The project contributes to dialogue processes under various international conventions such as the Cartagena Convention which the governments of the Dominican Republic, Costa Rica and Colombia have ratified and/or formally support. Having recognized the importance of marine environments, the international community took first steps to their protection by signing the International Convention for the Prevention of Pollution from Ships (MARPOL) in 1973 and 1978, followed by the adoption of the UN Convention on the Law of the Sea (UNCLOS) in 1982. Whereas MARPOL primarily seeks to curb pollution from sea-based sources, UNCLOS more broadly defines the rights and responsibilities of nations with respect to their use of the world's oceans, rules for businesses, the environment, and the management of natural resources. More specifically, UNCLOS stipulates that signatories "have the obligation to protect and preserve the marine environment" (Article 192) and shall take "all measures within this Convention that are necessary to prevent, reduce and control pollution of marine environments of any source" (Article 194).

More recently, policy makers have begun to respond to public concerns about the growing marine pollution by formulating and discussing solutions in various multilateral fora, such as the G20 Action Plan on Marine Litter (2017) and recent United Nations Environment Assembly (UNEA) resolutions from 2014, 2016 and 2017. Notably, all three countries are member states of the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (WCR) or (Cartagena Convention). This regional legal agreement was adopted in 1983 and entered into force in 1986. Being contracting parties to the Convention, the Dominican Republic, Costa Rica and Colombia have committed to take specific actions to reduce pollution from ships, open dumping, sea-bed activities and land-based sources as well as airborne activities.

Added to the challenges related to collection and disposal, the region faces an increasing level of waste production. Latin America and the Caribbean produces 10% of global waste at a rate of 541,000 tons a day, which is expected to rise by 25% by the year 2050. During the recent adoption of the Region's first State of Convention Area Report, regional governments agreed to add plastics and micro plastics as a

priority pollutant for further action. In the region, an average of 275,000 tons of waste per day are disposed of in open-air dumps or end up in local waterways and the Caribbean Sea. This results in marine litter and negative impacts on the region's coastal and marine resources including economic sectors such as Fisheries, Shipping and Tourism. Through the convening of Scientific Technical and Advisory Committee Meetings of the Cartagena Convention Secretariat and Meetings of Contracting Parties, frameworks exist to support national projects and activities to address plastics pollution.

Dominican Republic:

In the Dominican Republic, the project will contribute to the implementation of the National Development Strategy, the Policy for Municipal Solid Waste, the National Policy on Sustainable Consumption and Production (SCP) and the Coastal and Marine Ecosystem Restoration Programme. Moreover, PROMAR will also strengthen the efforts indicated in the national law of solid waste management on reducing plastic pollution in natural spaces, and the EPR principle proposed by this law; as well as feeding the commitments for the implementation of the National Sanitation Strategy (ENS). On the other hand, the project will also help to fulfil the Dominican Republic's voluntary national commitments presented at the 2017 United Nations Conference on Oceans. Further information about the relevance of existing policies and their interlinkages with PROMAR are given below.

- National Development Strategy (Estrategia Nacional de Desarrollo 2030): Establishes as one of the four central axes of the public policies the adoption of an environmentally sustainable production and consumption society. PROMAR will contribute to the accomplishment of this goal by promoting good practices for the effective management, recovery and correct disposal of waste, incorporating a preventive approach.
- Policy for the environmental management of non-hazardous solid waste: Provides general provisions for the reuse, recovery and recycling of solid waste. PROMAR would facilitate means of implementation that would ease the burden of responsibility of local governments in the management of solid waste recovery and recycling through the implementation of good practices that would facilitate said process.
- National Policy on Sustainable Consumption and Production (SCP): Establishes the need to promote a competitive production and consumption system, without implying the degradation and pollution of the environment. PROMAR will complement the implementation of this policy by the reduction of environmental pollution by the application of preventive actions in services, technologies and processes.
- Roadmap for a low-carbon, resource-efficient hotel sector in the Dominican Republic - 2030: Establishes as a country priority the complete elimination of single-use plastics generated as a result of tourist activity and the reduction of 25% of greenhouse gas emissions from this sector. PROMAR would facilitate joint efforts with hotels to facilitate the sustainable management of plastic waste, under the Parley AIR strategy for its reduction and total elimination.
- General law on environment and natural resources (64-00): Prohibits
 dumping of garbage in rivers and stimulates industrial reconversion
 processes linked to the implementation of clean technologies, as well as the
 promotion of activities of decontamination, collection and reuse of waste.
 PROMAR would facilitate the implementation of inter-institutional initiatives
 that reduce the pollution of the country's rivers, as well as the assumption of
 commitments to generate decontamination mechanisms.
- Law on environmental education and communication (94-20): Establishes a framework for the promotion of national efforts to promote environmental education. PROMAR would collaborate by generating efforts to promote environmental education in formal and non-formal spaces, through awareness-raising and education of key populations.

Costa Rica:

In Costa Rica, policies related to the prevention of marine litter include the National Strategy for the Replacement of Single-use Plastics, the National Plan for Comprehensive Waste Management 2016–2021, the National SCP Policy 2018-2030 and the National Decarbonization Plan 2018-2050, among others. Further details about the relevance of each of these policies are given below.

- National Strategy for the Replacement of Single-use Plastics 2017 2021: The project will directly support the National Strategy for the Replacement of Single-use Plastics which is a joint effort from the Ministry of Environment and Ministry of Health. The Strategy aims at reducing the presence of single-use plastics in rivers and beaches from the Pacific and Caribbean coasts setting specific targets of reduction of micro-plastics. PROMAR will complement its efforts by reinforcing actions to measure marine litter and reduce it presence. It will also contribute to two specific objectives of the Strategy related to supporting local municipalities raising community awareness to avoid single-use plastics and motivate the use of environmentally friendly alternatives.
- National Sustainable Consumption and Production (SPC) Policy 2018-2030: The National SCP Policy has six lines of work. Three of them Sustainable Agri-Food Systems, Sustainable Production and Sustainable Life Styles have specific objectives on prevention and reduction of waste. Under this policy, the Ministry of Environment and the Ministry of Health are committed to strengthening a programme for the prevention, reduction, recovery, reuse and recovery of waste from agri-food systems, as well as, industrial processes. They both support beach cleaning through the Blue Flag Programme (PBAE by its initials in Spanish). PROMAR plans to coordinate with these Ministries in order to support their actions to reduce plastic packing and engage consumers in Caribbean beaches clean-ups.
- National Plan for Integrated Waste Management (IWM) 2016-2020: Education and Training is the one of the three areas of action of the IWM National Plan. The plan aims to strengthen education on waste management from primary school to universities and create awareness on communities. Output IV under PROMAR will contribute with the development of innovative materials and education models, hence supporting the National Plan.
- National Decarbonization Plan 2018-2050: Costa Rica has designed a route to have a green economy, without emissions, resilient and equitable by 2050 working on 10 areas, waste management is one of them. The Plan motivates the creation of tools and regulation to prevent single-use plastics, the revision of technical and legal instruments that allow to apply the principle of extended producer responsibility, the search for circular economy solutions with the participation of private sector, among other actions. The 4 outputs of PROMAR will support and complement actions under the scope of the National Plan.
- National Bioeconomy Strategy 2020-2030: The recently approved National Bioeconomy Strategy aims to take advantage of Costa Rica's biological resources to support a sustainable development of our country. Amongst the core areas are urban bioeconomy and green cities with an specific line of work on sustainable management and valuation of municipal solid waste. Thus, PROMAR will contribute to the objectives of this strategy through the implementation of pilot cases.

In addition, the Ministry of Environment and Energy recently announced to elaborate a National Action Plan on Marine Litter and it is expected to be ready by mid-2021. The initiative is carried out under the framework of the Free Trade Agreement between the United States, Central America and the Dominican Republic (DR CAFTA), supported by the United States Environmental Protection Agency (EPA) and its partner Battelle. PROMAR will support this and all of the above mentioned initiatives related to waste management and marine litter prevention.

Colombia:

In Colombia, the project will contribute to the implementation of environmental aspects under the National Development Plan 2018-2022, the National Policy on

Integrated Solid Waste Management (2016) and the Circular Economy Strategy (2019). In addition, it will support the national resolution 1407 (2018) for the management of (plastic) packaging waste. In Colombia, policies related to the prevention of marine litter and reduction of single-use plastic waste include:

- National Policy on Integrated Solid Waste Management CONPES 3874 (2016): This policy updates and integrates the National Policy for Cleaner Production and the National Plan for Green Markets as strategies of the Colombia to promote and link environmental improvement and productive transformation with business competitiveness. On the specific topic of solid waste, strategies and lines of action stand out, such as: (i) development of waste utilization systems at the regional level; (ii) regulation of waste management in sectors such as construction, manufacturing, transportation, food, and packaging; (iii) development of extended producer responsibility (EPR); (iv) strengthening of existing economic instruments and development of new ones that promote sustainable production and consumption; (v) interinstitutional and inter-sectoral articulation of the National Environmental Education Program for sustainable production and consumption; (vi) strengthening the applied research capacity of centres, institutions, foundations and companies, in terms of sustainable production and consumption, and (vii) green business entrepreneurship.
- National Circular Economy Strategy (2019): The National Circular Economy Strategy was published in 2019 and represents the first comprehensive circularity strategy in the Americas. It aims to significantly increase the rate of recycling and reuse of waste, which today stands at 8.7%, so that it will rise to 17.9% by 2030. By 2022, the percentage of solid waste effectively used is expected to go from 17% to 30%.
- Resolution 1407 (2018) Containers and Packaging Extended Producer Responsibility: The purpose of this resolution is to regulate the environmental management of paper, cardboard, plastic, glass and metal packaging waste by shifting the responsibility for end-of-life management onto the shoulders of producers. The resolution was launched in 2018 and obliges producers of containers and packaging to formulate waste management plans until 2020. Due to the novelty of EPR in Colombia, various stakeholders are facing challenges in the formulation and implementation of the plans. Single-use plastics is by far the most pressing waste stream covered by this resolution.
- Law project 73/2019C (2019-07): The purpose of this law is to establish measures for the governance, protection and sustainability of the Coastal Marine Territory, create financing mechanisms, in order to guarantee the protection of coastal communities and marine and coastal ecosystems, comply with the Sustainable Development Goals (SDGs) 13 on Climate Action, 14 on Protecting Underwater Life, and 16 on Peace, Justice and Strong Institutions.
- Law 1973 (2019): This law regulates and prohibits the entry, marketing and use of bags and other plastic materials in the Archipelago of San Andrés, Providencia and Santa Catalina and the smaller islands that compose it.

One of the main goals of the project is to provide a better understanding of leakage points and waste management challenges to the local authorities. Through a better understanding of the waste management challenges, the local authorities can emit more assertive procedures regarding the formulation and implementation of the resolution for the producers. In addition, the project will incentivise producers to apply eco-design approaches avoiding the use of single-use containers and packaging materials. This goal directly contributes to the implementation of resolution 1407/2018.

At the regional level, several Colombian authorities have the right to develop regulations regarding the prevention and minimization of waste in general and marine litter specifically. Colombia has 42 local environmental authorities, 33 of have a jurisdiction in the Magdalena river basin. Each environmental authority has multiple regulations in terms of prevention and minimization of waste and water pollution. In the past, several campaigns have been implemented by local environmental

authorities and NGOs, seeking to clean small islands in the Magdalena river of waste. In addition, cities like Barranquilla, Santa Marta and Cartagena where the problem is at plain sight have also participated in individual activities. Yet, Colombia continues to face challenges in terms of formulating and implementing prevention plans at the regional level.

In Colombia, PROMAR will provide assistance to central and regional activities by involving the public sector, the private sector and the communities and establishing prevention mechanisms through capacity building, education and dissemination of knowledge.

4.2 Project goals and results

4.2.1 Target group

The key target groups of the project include:

- The project will support policy makers from the central governments who need to meet national and international sustainability commitments, such as SDGs.
- Regional public authorities, incl. ministries. Municipalities are mainly responsible for establishing waste management systems and will thus play key a role in implementing the pilot cases at regional level. They will benefit from the project as their capacities for waste management will be built.
- Private plastic industry players (incl. associations) are under increasing pressure to take responsibility for the plastic crisis. They will also play a major role in project implementation, e.g. in the context of introducing and/or implementing Extended Producer Responsibility (EPR) schemes. E.g. ACOPLÁSTICOS in Colombia.
- Stakeholders from economic sectors are dependent on healthy marine ecosystems (e.g. fishery and tourism) are beneficiaries of the project. They rely on marine ecosystem services and benefit from cleaner coastlines and maritime environments. E.g. hospitality and local businesses of the Dominican Republic as members of the Asociación de Hoteles y Turismo de la República Dominicana (ASONAHORES).
- The coastal population and consumers in general will benefit from a cleaner and healthier environment. In addition, they are important stakeholders supporting mitigating measures, e.g. by changing behaviour to avoid open dumping and shift towards adequate disposal practices.
- Development Finance Institutions (DFIs) will be encouraged to mobilise funding for waste prevention measures. They play a key role in securing the long-term sustainability of the project's activities, e.g. by providing loans for the construction and maintenance of infrastructure.
- A common denominator of many developing and emerging economies is the important role of the informal sector, which often form the backbone of waste management systems. Informal groups will be beneficiaries of the project as their livelihoods will be enhanced by gradually integrating into formal waste management chains.

4.2.2 Impacts (longterm results)

The project will contribute to protecting marine coastal and riverine environments in the Caribbean Sea by promoting long-term changes at various levels.

By anchoring monitoring systems at a local level, the project will create a better understanding and basis for decision-making for policy officers. These monitoring systems will serve as positive examples for active replication, e.g. by establishing similar systems in other regions in the Dominican Republic, Costa Rica and Colombia as well as other parts of Latin American, the Wider Caribbean Region and small island states during the project life time.

The pilot cases will induce long-term change towards a circular economy after completion of the project by creating value chains for the utilisation of secondary raw materials from plastic waste and establish separate waste collection systems for recyclables and non-recyclables. All pilot cases will be economically viable and operate on a self-sufficient basis, thus allowing them to be transferred and replicated

beyond the demonstration sites along with the monitoring systems linked to local waste management systems and beyond the project's implementation period.

By strengthening the capacities of political partners to implement EPR schemes, the project will leverage private sector funds to improve the countries' waste management infrastructure. It will also incentivise producers to switch to more environmentally friendly alternatives (e.g. reusable or lightweight packaging) and thus prevent waste from being created in the first place and flowing into marine environments.

Moreover, by creating awareness amongst stakeholders from the public/private sector and civil society, the project will induce wide-spread behavioural changes, resulting in reductions of marine litter far beyond the project implementation timeframe. Lastly, by engaging both private service providers and workers from the informal waste economy, the project will further support improvement of waste management systems and ensure that plastic waste is disposed of responsibly.

4.2.3 Outline of the results chain underlying the project proposal

The project's overarching goal is to reduce flows of plastic waste (mainly single-use plastic and packaging materials) from terrestrial sources in the Dominican Republic, Costa Rica and Colombia into aquatic environments in the Caribbean Sea. To achieve this, the project will anchor monitoring systems in local public authorities at selected demonstration sites (Op1).⁴ Preliminary demonstration sites have been identified in consultation with political partners. In the Dominican Republic, high priority was given to estates along the Haina River (Santo Domingo). In Costa Rica, various sites in Limón have been discussed (e.g. Manzanillo, Cocles, Puerto Viejo, Cieneguita, Playa Bonita and Westfalia). With regards to Colombia, settlements along the Magdalena river were perceived as priorities.

Based on baseline assessments under Op1, the implementation of pilot cases at the demonstration sites will achieve measurable reductions of plastic waste entering aquatic environments (Op2). The solutions will comprise a combination of innovative measures and integrated technology concepts to be developed and implemented together with local stakeholders, such as the deployment of marine debris river inceptors⁵, solar powered collection points and containers, compactors, electric collection tricycles and/or technical tools for calculation of waste fees, evaluation of technology options and governance approaches for source-to-sea solutions (e.g. zero-waste certification schemes).⁶

At the national level, the project will strengthen the implementation of EPR systems, foster replication of prevention measures beyond the selected demonstration sites and support transnational policy dialogue (Op3). The monitoring systems and pilot cases implemented under Op1 and Op2 will form the basis for replication cases and serve as specific examples for the implementation of EPR systems at national level. In addition, they will provide success stories, which can be presented and discussed as part of the governments' contributions to international dialogue fora and multilateral agreements (e.g. UNCLOS, MARPOL and the Cartagena Convention).

Lastly, awareness creation amongst stakeholders will result in behavioural changes and intercept plastics flowing into marine environments (Op4). This includes reaching out to stakeholders from civil society, public and private sector during events, beach clean-ups and media campaigns in all project countries. To facilitate this process, the project will develop a comprehensive set of tools for awareness creation and awareness assessment to understand the project's contribution to behavioural change.

⁴ For a definition of the term "demonstration sites", please refer to the description of WPI in section 4.2.6

⁵ River interceptors will only be applied if the results of the Environmental Impact Assessments (EIA) described under WP II clearly show that they will not have adverse effects on local ecosystems.

⁶ For more information about the selection procedure and the nature of these solutions, please refer to the description of WPII in section 4.2.6

Impact(s)

The project will contribute to protecting marine coastal and riverine environments in the Caribbean Sea by promoting long-term changes at various levels. By anchoring monitoring systems at a local level, the project will create a better understanding and basis for decision-making for policy officers. The pilot solutions will induce long-term change by creating value chains for the utilisation of secondary raw materials from plastic waste and establishing separate waste collection systems for recyclables and non-recyclables. By strengthening the capacities of political partners on the introduction and implementation of EPR, the project will leverage private sector funds for developing waste management infrastructure, will incentivise eco-design approaches and will encourage the step-wise integration of the informal sector into formal value chains. Lastly, by creating awareness amongst stakeholders from the public/private sector and civil society, the project will induce wide-spread behavioural changes, resulting in reductions of marine litter far beyond the project implementation timeframe.

Outcome

Flows of plastic waste (mainly single-use plastic and packaging materials) from terrestrial sources in the Dominican Republic, Costa Rica and Colombia into aquatic environments in the Caribbean Sea are reduced.

Output I

Monitoring systems are anchored in local public authorities in order to monitor waste entering aquatic environments at selected demonstration sites.

Output II

Circular economy solutions are implemented at selected demonstration sites and achieve measurable reductions of plastic waste entering aquatic environments.

Output III

Capacities of political partners are strengthened to implement EPR systems, replicate measures for marine litter prevention beyond the selected demonstration sites and engage in transnational policy dialogue.

Output IV

Awareness of stakeholders on marine litter prevention is enhanced and contributes to behavioural change.

4.2.4 Outcome (overarching project goal) including indicators

Outcome:

Flows of plastic waste (mainly packaging) from terrestrial sources in the Dominican Republic, Costa Rica and Colombia into aquatic environments in the Caribbean Sea are reduced.

Indicators for the Outcome:

Outcome indicator 0.1:

Waste from selected single-use plastic and packaging materials entering aquatic environments is reduced by at least x%/y tonnes in each demonstration site by the end of the project.⁷

Unit	Baseline (start of project)	Target value (end of project)
% and tonnes		x%/y tonnes (2023)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Records of formal recycling companies; collection and recycling reports; aggregate data reports from ministries, public and private entities; success stories from implementation of pilot cases

Outcome indicator 0.2:

At least 3,000 tonnes of single-use plastic and packaging materials are prevented and collected for closed-loop reuse and recycling by the end of the project.

Unit	Baseline (start of project)	Target value (end of project)
Tonnes	0 (2020)	3,000 (2023)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Records of formal recycling companies; collection and recycling reports; aggregate data reports from ministries, public and private entities; success stories from implementation of pilot cases

4.2.5 Outputs (specific project goals) including indicators and work packages (activities)

Output I: Monitoring systems are anchored in local public authorities at selected demonstration sites.

Indicators for Output I:

Indicator I.1:

3 data sets (one per country) for monitoring waste entering aquatic environments in local public authorities at selected demonstration sites are completed by end of the first year.

Unit	Baseline (start of project)	Target value and planned date of
Data	0 (12/2020)	attainment
sets		3 in total, 1 per country (12/2021)

⁷ Since the nature of the circular economy solutions will be elaborated together with political partners and decision-makers at each demonstration site, a specific estimate cannot be given at this point in time. Instead, the project team will establish a baseline for waste generation in the first year of implementation. Based on subsequent feasibility assessments, absolute and relative reduction values will be formulated, thus leading to a reduction of x% and y tonnes by the end of the project period.

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Completed data collection materials from demonstration sites (beach samples, drone imagery, surveys); data sheets (excel, word) for aggregate analysis

Indicator I.2:

3 baseline reports (one per country) on waste entering aquatic environments at selected demonstration sites are published by mid of the second year.

Unit	Baseline (start of project)	Target value and planned date of
Reports	0 (12/2020)	attainment
·	,	3 in total, 1 per country (06/2022)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Formatted and published reports; websites and (social) media outlets

Indicator I.3:

3 Standard Operation Procedures (SOPs; one per country) for monitoring of waste entering aquatic environments are adopted by local public authorities at selected demonstration sites by the end of the second year.

Unit	Baseline (start of project)	Target value and planned date of
SOPs	0 (12/2020)	attainment
	,	3 in total, 1 per country (12/2022)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Government circulars and announcements; published guidelines and documents describing SOPs for monitoring marine litter generation

Activities corresponding to Output I:

Work Package (WP I): Analysing Material Flows and Establishing Monitoring Mechanisms

Activity (A I.1)

Determine demonstration sites in collaboration with central and local authorities.

Activity (A I.2)

Collect data through on-site sampling (e.g. drone sampling and physical shoreline debris survey) and identification/quantification of sources.

Activity (A I.3)

Carry out material flow analyses as baselines of waste entering aquatic environments based on collected data at selected demonstration sites.

Activity (A I.4)

Support local public authorities to anchor monitoring systems for marine litter generation within existing work flows.

Roles of implementing partners:

- adelphi: leading implementation of A I.3; supporting implementation of all other activities in WP I
- Parley Dominican Republic: leading implementation of A I.1, A I.2, A I.4 in the Dominican Republic; supporting implementation of A I.3

- CEGESTI: leading implementation of A I.1, A I.2, A I.4 in Costa Rica; supporting implementation of A I.3
- CNPML: leading implementation of A I.1, A I.2, A I.4 in Colombia; supporting implementation of A I.3
- ABRELPE: supporting implementation of A I.1, A I.2 and A I.3

Milestones corresponding to Output I:

Milestone I.1: Demonstration sites are confirmed by political partners (by 06/2021).

Milestone I.2: Data collection on waste generated and entering aquatic environments at selected demonstration sites is concluded (by 12/2021).

<u>Output II:</u> Circular economy solutions are implemented at selected demonstration sites and achieve measurable reductions of plastic waste entering aquatic environments.

Indicators for Output II:

Indicator II.1:

Toolbox with technical instruments for prevention of waste entering aquatic environments is developed, adapted and published by the end of the project

Unit	Baseline (start of project)	Target value and planned date of
Tools	0 (12/2020)	attainment
	,	1 (12/2023)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Completed technical tools (excel files, word files) for monitoring, management and reduction of waste entering aquatic environments; websites and (social) media outlets

Indicator II.2:

3 pilot cases (1 per country) for reduction of waste entering aquatic environments through circular economy solutions are implemented by the end of the project.

Unit	Baseline (start of project)	Target value and planned date of
Pilot	0 (12/2020)	attainment
cases		3 (12/2023)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Progress and monitoring reports; pictures; testimonials from industry and government involved in pilot case implementation

Indicator II.3:

3 success stories (1 per country) of pilot cases are published and disseminated by the end of the project.

Unit Baseline Success 0 (12/20 stories	(start of project) 20)	Target value and planned date of attainment 3 (12/2023)
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Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Success story documents (e.g. in form of flyers, short reports, videos incl. testimonials)

Activities corresponding to Output II:

Work Package (WP II): Pilot Case Implementation for Marine Litter Prevention Activity (A II.1)

Develop and adapt existing waste management tools to suit selected demonstration sites in line with source-to-sea approaches.

Activity (A II.2)

Support implementation of pilot cases through circular economy solutions in partnership with local communities, informal workers, public and private actors.

Activity (A II.3)

Document pilot cases, capture success stories and disseminate lessons learnt.

Roles of implementing partners:

- adelphi: leading implementation of A II.1; supporting implementation of all other activities in WP II
- Parley Dominican Republic: leading implementation of A II.2 and A II.3 in the Dominican Republic; supporting implementation of A II.1
- CEGESTI: leading implementation of A II.2 and A II.3 in Costa Rica; supporting implementation of A II.1
- CNPML: leading implementation of A II.2 and A II.3 in Colombia; supporting implementation of A II.1
- ABRELPE: supporting implementation of A II.3

Milestones corresponding to Output II:

Milestone II.1: Tools for prevention of waste entering aquatic environments are shortlisted and their potential for adaptation to the selected demonstration sites shortlisted (by 03/2021).

Milestone II.2: Implementation of pilot cases through circular economy solutions at selected demonstration sites initiated (by 06/2021).

Milestone II.3: Collation of success stories of pilot cases finalised (by 12/2023).

<u>Output III:</u> Capacities of political partners are strengthened to implement EPR systems, replicate pilot cases beyond the selected demonstration sites and engage in transnational policy dialogue.

Indicators for Output III:

Indicator III.1:

Extended Producer Responsibility (EPR) schemes for packaging are gradually implemented by political partners in the Dominican Republic, Costa Rica and Colombia by the end of the project.

Unit	Baseline (start of project)	Target value and planned date of
EPR	0 (12/2020)	attainment
schem	,	3 (12/2023)
es		

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Legislations with reference to EPR, guidelines for their implementation, strategy papers and/or government reports

Indicator III.2:

3 study tours for south-to-south learning on EPR between public and private stakeholders within Latin America and the wider Caribbean region are organised by the end of the project.

Unit	Baseline (start of project)	Target value and planned date of
Study	0 (12/2020)	attainment
tours	,	3 (12/2023)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Study tour reports (incl. list of participants, pictures, evaluation)

Indicator III.3:

5 replication cases are initiated beyond the demonstration sites (i.e. in other regions in the Dominican Republic, Costa Rica and Colombia as well as other countries in Latin America and the Wider Caribbean Region) by end of the project.

Unit	Baseline (start of project)	Target value and planned date of
Replic	0 (12/2020)	attainment
ation	,	5 (12/2023)
cases		

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Progress/monitoring reports and success story documents of replication cases

Indicator III.4:

9 contributions (sessions, papers; 3 per country) are presented in international dialogue fora by the end of the project.

Unit	Baseline (start of project)	Target value and planned date of
Contributions	0 (12/2020)	attainment
(sessions,	,	9 in total, 3 per country (12/2023)
papers)		

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Contributions during conferences and international dialogue events; trans- and international media coverage; event reports; government reports

Activities corresponding to Output III:

Work Package (WP III): Capacity Building and (Trans-)National Policy Dialogue Activity (A III.1)

Strengthen capacities of political partners to implement EPR systems and national initiatives.

Activity (A III.2)

Facilitate south-south learning on EPR between public and private stakeholders in Latin America (e.g. exchange with Chile as case study) and the Wider Caribbean Region (e.g. small island states).

Activity (A III.3)

Promote replication of pilot cases beyond the three demonstration sites.

Activity (A III.4)

Support political partners to conduct transnational policy dialogue on marine litter prevention and EPR within international fora and multi-lateral agreements (e.g. Cartagena Convention).

Roles of implementing partners:

- adelphi: leading implementation of A III.4; supporting implementation of all other activities in WP III
- Parley Dominican Republic: leading implementation of A III.1 and A III.3 in the Dominican Republic, Latin America and the Wider Caribbean Region; supporting implementation of A III.2 and A III.4
- CEGESTI: leading implementation of A III.1 in Costa Rica; supporting implementation of A III.2 and A III.4
- CNPML: leading implementation of A III.1 in Colombia; supporting implementation of A III.2 and A III.4
- ABRELPE: leading implementation of A III.2 and A III.3; supporting implementation of A III.4

Milestones corresponding to Output III:

Milestone III.1: Suitable partners for south-to-south learning approaches identified and shortlisted (by 06/2021).

Milestone III.2: Replication sites identified and contacted (by 12/2021).

Output IV: Awareness of stakeholders on marine litter prevention is enhanced and contributes to behavioural change.

Indicators for Output IV:

Indicator IV.1: Best practice compendium with materials on awareness creation and education is developed and consolidated by the end of the second year of the project.

Unit	Baseline (start of project)	Target value and planned date of	
Tools	0 (12/2020)	attainment	
		1 (12/2022)	

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Published compendium; learning modules for awareness creation and education on marine litter prevention

Indicator IV.2: 6,000 consumers have been engaged in beach and river cleanups by end of the project.

Unit	Baseline (start of project)	Target value and planned date of
Consu	0 (12/2020)	attainment
mers		6,000 (12/2023)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Awareness event reports incl. participant lists, pictures

Indicator IV.3: At least 75% of stakeholders participating in awareness raising events report enhanced Knowledge, Attitudes and Practices (KAP) on marine litter prevention by end of the project.

Unit	Baseline (start of project)	Target value and planned date of
Number	0 (12/2020)	attainment
of		75% (12/2023)
stakehol		
ders		

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Completed awareness surveys which are filled in after events have been carried out; event reports incl. evaluation; feedback from participating stakeholders; testimonials

Indicator IV.4: 3,000 downloads of awareness and education tools are recorded via the project's online platforms by the end of the project.

Unit	Baseline (start of project)	Target value and planned date of
Downl	0 (12/2020)	attainment
oads		3,000 (12/2023)

Means of verification and a description of the procedure (data sources, data collection, measurement methods, etc.):

Download protocols extracted from back-end of websites and online platforms (e.g. Facebook, LinkedIn, Twitter)

Activities corresponding to Output IV:

Work Package (WP IV): Stakeholder Awareness and Dissemination

Activity (A IV.1)

Develop, consolidate and publish best practice materials for awareness creation and education for stakeholders from civil society, public and private sector based on regional and international best practices.

Activity (A IV.2)

Organise awareness raising events on waste prevention (e.g. beach and river cleanups to collect marine debris).

Activity (A IV.3)

Conduct surveys and evaluations to assess knowledge, attitudes and practices (KAP) on marine littering amongst stakeholders from civil society, the public and private sector.

Activity (A IV.4)

Disseminate and make available the project's tools, results and lessons within global and regional networks.

Roles of implementing partners:

- adelphi: leading implementation of activity A IV.1 and A IV.4; supporting implementation of all other activities in WP IV
- Parley Dominican Republic: leading implementation of A IV.2 and A IV.3 in the Dominican Republic; supporting implementation of all other activities in WP IV
- CEGESTI: leading implementation of A IV.2 and A IV.3 in Costa Rica; supporting implementation of all other activities in WP IV

- CNPML: leading implementation of A IV.2 and A IV.3 in Colombia; supporting implementation of all other activities in WP IV
- ABRELPE: supporting implementation of all activities in WP IV

Milestones corresponding to Output IV:

Milestone IV.1: 1,500 tonnes of single-use plastic and packaging materials are collected for closed-loop reuse and recycling (by 06/2022).

Milestone IV.2: The project's tools, results and lessons are disseminated and made available within global and regional networks (by 06/2023).

4.2.6 Description of the work packages and activities

First Work Package (WP I) corresponding to Output I:

Title of WP I: Analysing Material Flows and Establishing Monitoring Mechanisms Description of WP I:

Currently, authorities in the Dominican Republic, Costa Rica and Colombia do not have established monitoring mechanisms for tracking flows of plastic debris into aquatic ecosystems on a systematic basis. Also, accurate data on plastic waste generation, its source and composition is largely unavailable. In all three countries, local authorities are responsible for implementing waste management systems in line with good environmental practices; however, most authorities have failed to deliver accurate numbers in this regard because this data simply has not been collected and no systemised mechanisms of reporting have been established yet. In order to design an effective plastic waste management system that supports prevention measures, data on sources, collection rates, points of leakage, and waste composition is essential. Decision makers at the national level are dependent on reporting accurate and comprehensive data from the regional and local level to formulate adequate policy frameworks which promote the prevention of waste at the source.

Together with national and local public authorities in the Dominican Republic, Costa Rica and Colombia, suitable demonstration sites will be shortlisted and selected in order to subsequently develop and implement monitoring mechanisms in all three countries (A I.1). In the context of this project, the term "demonstration sites" refers to selected and spatially defined areas, which are characterised by a high level of waste generation and discharge into aquatic environments. The sites will represent the focal points for activities falling under WP I and WP II (Output I and Output II respectively) at which monitoring systems will be established and circular economy solutions will be implemented in the form of pilot cases.

Once selected, the project team will carry out data collection across these demonstration sites and establish a baseline for each of them, covering parameters such as material type, sources, movements and the final end-states. In order to evaluate possible methodologies, a series of workshops with local public authorities and relevant stakeholders from academia, civil society organisations and the private sector will be conducted. During these consultations, already existing approaches for tracking, monitoring and reporting will be identified, discussed and assessed in order to arrive at a suitable overarching methodology for each demonstration site (A 1.II).

Possible approaches to monitoring include debris shoreline sampling (i.e. manual sampling of plastic waste per square meter of shorelines with subsequent extrapolation to larger areas⁸), remote sensing based on (e.g.) aerial drone imagery along with deep learning algorithms to analyse the photographic evidence and/or citizen science approaches to crowd-source data for marine litter along defined demonstration sites. In addition, these tools may also form part of the toolbox developed as part of WP II (see below).

The baseline assessment will account for changes over time. Moreover, the project team will employ suitable tools for analytical and visual processing, such as GIS and the Material Flow Analysis software Umberto⁹ (utilising Sankey diagrams to

⁹ Umberto is a software solutions created, distributed and maintained by ifu Hamburg, a company specialised in lifecycle assessments and material flow analyses. The software is not only able to depict material flows

⁸ Publicly available resources include, for instance, protocol documents and field datasheets published by the US National Oceanic and Atmospheric Administration (NOAA): https://marinedebris.noaa.gov/mdmap-protocol-documents-and-field-datasheets

comprehensively depict material flows steady-state scenarios). The results will be published as independent baseline reports for each country (A I.3). Subsequently, the monitoring mechanisms will be anchored within existing structures in collaboration with local public authorities. Staff involved will be trained on the job and the processes to be followed will be captured as part of Standard Operating Procedures (SOPs) in form of guidelines or official guidance documents (A I.4). Lessons learned in the development and demonstration of the monitoring mechanisms will be collected on a continuous basis and will form part of SOPs and corresponding training materials in order to create a standardised processes and enable its replication beyond the demonstration sites.

Activity (A I.1)

Determine demonstration sites in collaboration with central and local authorities.

Activity (A I.2)

Collect data through on-site sampling (e.g. drone sampling and physical shoreline debris survey) and identification/quantification of sources.

Activity (A I.3)

Carry out material flow analyses as baselines of waste entering aquatic environments based on collected data at selected demonstration sites.

Activity (A I.4)

Support local public authorities to anchor monitoring systems for marine litter generation within existing work flows.

Second Work Package (WP II) corresponding to Output II:

Title of WP II: Pilot Case Implementation for Marine Litter Prevention

Description of WP II:

Based on the demonstration sites selected as part of WP I, the project team will compile and shortlist a range of tools and technologies, which contribute to the prevention of marine litter in line with the source-to-sea framework¹⁰, focusing mainly on the prevention of terrestrial waste leaking into marine environments. In order to determine the suitability of tools and technologies for prevention of marine litter across the selected demonstration sites, a multi-criteria assessment will be carried out in consultation with the public authorities and representatives from the private sector (e.g. domestic producers and recyclers). Their feedback will be gathered in multi-stakeholder consultations in each country over the course of the implementation. Upon final selection and adaptation, they will be published in form of a comprehensive toolkit, consisting of various lone-standing tools that contribute to marine litter prevention (A II.1).

In a next step, a combination of tools and technologies will be implemented in close collaboration with selected stakeholders at the demonstration sites (A II.2). In general, tools and solutions will be selected in line with the waste hierarchy, thus giving highest priority to prevention, followed by (in order of decreasing importance) preparation for reuse, recycling, recovery and disposal. Prior to the deployment of technology solutions, environmental impact assessments will be carried in order to safeguard local ecosystems against potentially adverse results.

The solutions – henceforth referred to as *pilot cases* – will comprise a combination of innovative measures and integrated technology concepts, such as the deployment of

from (e.g.) plastic waste but can also estimate the lifecycle impacts and economic damages resulting from such flows.

¹⁰ The source-to-sea framework was developed by the Stockholm International Water Institute (SIWI) and represents a comprehensive, holistic approach to marine litter prevention: https://www.siwi.org/publications/source-to-sea-framework-for-marine-litter-prevention/

marine debris river inceptors¹¹, solar powered collection points and containers, compactors, electric collection tricycles and/or technical tools¹² for calculation of waste fees, evaluation of technology options and governance approaches for separation of waste at the source (e.g. Deposit Refund Schemes). During the implementation of the project, the capacities of key stakeholders will be built during workshops and one-to-one training sessions. Since informal stakeholders typically form the backbone of waste management systems in the Dominican Republic, Costa Rica and Colombia, all pilot cases will actively contribute to their integration into formal value chains. This will be achieved by setting up formal-informal partnerships, supporting the formation of umbrella organisations acting on behalf of informal stakeholders and building their capacities on the environment, health and safety benefits of formal waste disposal practices.

In order to ensure that the pilot cases can be up-scaled and replicated beyond the selected demonstration sites, their implementation will be thoroughly documented and the key results and lessons learnt will be distilled into success stories. These will be published as promotional documents – e.g. in form of flyers, short reports, videos incl. testimonials – and distributed amongst national and transnational media outlets. Moreover, best practices from the pilot cases will be disseminated via industrial associations and civil society organisations in order to reach out to producers and recyclers that were not involved in the initial demonstration projects (A II.3).

Activity (A II.1)

Develop and adapt existing waste management tools to suit selected demonstration sites in line with source-to-sea approaches.

Activity (A II.2)

Support implementation of pilot cases through circular economy solutions in partnership with local communities, informal workers, public and private actors.

Activity (A II.3)

Document pilot cases, capture success stories and disseminate lessons learnt.

Third Work Package (WP III) corresponding to Output III:

Title of WP III: Capacity Building and (Trans-)National Policy Dialogue Description of WP III:

Wide-spread adoption of measures for prevention of marine litter will fall short unless they are supported through national policies and initiatives, which create incentives for stakeholders from the public and private sector and civil society to adopt more sustainable consumption and production (SCP) practices. A key tool for the adoption of SCP is Extended Producer Responsibility (EPR). According to the internationally applied policy principle, the responsibility for end-of-life management of products is shifted onto the shoulders of producers. Typically, EPR schemes distinguish between physical, financial and informative responsibility in order to determine which public and private stakeholder, carry out collection and recycling activities, mobilise funding and implement awareness raising measures across the general public. To introduce and implement EPR systems successfully, responsibilities of stakeholders need to be clearly defined. On the one hand, a clear definition of the companies counting as introducers of plastic to the market need to be specified and collection targets need to be set, on the other hand the system also needs address the countries' largest amount of unbranded and unmanaged plastic waste products and find a way to integrate the

¹¹ River interceptors will only be applied if the results of the EIA described under WPII clearly show that they will not have adverse effects on local ecosystems.

¹² For instance, the project team seeks to draw from and adapt tools developed under the on-going PROTEGEER project in Brazil. In addition, monitoring instruments developed and implemented under WP I may form part of the final toolbox.

informal sector. Accurate reporting and monitoring systems, as well as transparent payment systems are required and need to be translated into national and state-level policies accordingly.

The Dominican Republic, Costa Rica and Colombia are characterised by very different levels of implementation of EPR schemes. Yet, a common denominator is the limited experience in designing EPR systems (and their elements) and the lack of knowledge for their implementation. Hence, WP III will strengthen the capacities of national governments in the three target countries on the implementation of EPR for plastic packaging waste (A III.1). This will be done by drawing from international best practices (e.g. from the German Dual System and other member states of the EU), conducting a series of capacity building workshops and providing one-to-one support to government official responsible for the implementation of EPR. A particular emphasis will be put on the potentials of EPR for facilitating upstream changes and incentivising eco-design amongst producers and importers. Typically, this is achieved by the introduction of economic instruments, which penalise the excessive use of plastics (e.g. taxing single-use packaging) or provide incentives for the application of environmentally-friendly materials (e.g. recycled packaging).

While the presentation of international best practices on EPR is paramount, conditions in the three target countries are vastly different from those encountered in the more developed regions of (for instance) the EU. Hence, the project will further support trans-national policy dialogue and facilitate south-to-south learning experiences within Latin America and the Wider Caribbean Region (A III.2). This will include the facilitation of one-to-one interactions between government officials (e.g. Zoom calls, webinars) as well as the organisation of 3 study tours to other countries in Latin America and the Caribbean where EPR has been implemented successfully to combat marine litter. One notable case is Chile, which is widely regarded as a best practice example for the implementation of EPR in South America. In addition, interactions with small island states will be sought since they are typically more susceptible to the adverse effects of marine litter.

The interactions with other Latin American and Caribbean countries will provide fertile ground for initiating the replication of pilot cases carried out under WP II (A III.3). These replication cases will adapt and transfer specific elements of the pilot cases implemented at the demonstration sites in the Dominican Republic, Costa Rica and Colombia. The project team will support this process by utilising the existing results, lessons learnt and success stories in order to generate support and ownership at the local level.

In addition, the project team will support their political partner ministries in the three target countries to engage in transnational policy dialogue on marine litter prevention and EPR (A III.4). To this end, the team will promote their involvement in international fora and support them in fulfilling their reporting obligations under multi-lateral agreements. This may comprise the participation of political partners in the UNCLOS, MARPOL and Cartagena Convention international meetings and conferences. Other important fora and international networking platforms include the International Solid Waste Association (ISWA), the Global Partnership on Marine Litter, the Caribbean Regional Marine Litter Node, the Climate and Clean Air Coalition (CCAC), the PREVENT Waste Alliance, the Network of Cleaner Production Centres as well as the German RETech Partnership, Our Oceans Conference and UN World Oceans Day.

Activity (A III.1)

Strengthen capacities of political partners to implement EPR systems and national initiatives.

Activity (A III.2)

Facilitate south-south learning on EPR between public and private stakeholders in Latin America (e.g. exchange with Chile as case study) and the Wider Caribbean Region (e.g. small island states).

Activity (A III.3)

Promote replication of pilot cases beyond the three demonstration sites.

Activity (A III.4)

Support political partners to conduct transnational policy dialogue on marine litter prevention and EPR within international fora and multi-lateral agreements (e.g. through the Cartagena Convention Secretariat and its networks).

Fourth Work Package (WP IV) corresponding to Output IV:

Title of WP IV: Stakeholder Awareness and Dissemination

Description of WP IV:

In order to lay the foundation for enabling behavioural change and create long-lasting impacts, the project will develop (and apply) a compendium of best practices for awareness raising and education on marine litter prevention targeted at selected stakeholders of the civil society, the private and public sector (A IV.1). The compendium will consist of different tools and materials that draw from regional and international best practices which have turned out to be successful in promoting behavioural change.

Utilising the above-mentioned best practice compendium and its elements (materials, tools), the project team will seek interactions with stakeholders in order to illustrate the real-life impacts of behavioural changes on marine litter prevention and facilitate experiential learning (A IV.2). For instance, consumers and tourists will be engaged during beach clean-ups and will actively collect plastic debris in coastal and riverine areas. In addition, the project will tap into a wide range of different channels to initiate targeted campaigns, such as local/regional media outlets (e.g. radio, TV, newspapers) and social media channels (Instagram, Facebook, LinkedIn, Twitter, Youtube) to illustrate the benefits of separation of municipal solid waste at the source. Education and awareness materials will include educational posters, videos, and/or presentations and interactive activities regarding the importance of the oceans and plastic pollution for schools, offices and clean-up events.

The effectiveness of the awareness raising activities carried out as part of the project will be assessed by conducting regular surveys amongst the key target groups (A IV.3). Methodologically, the surveys will analyse different parameters determining the efficacy of triggering behavioural change by asking participants about their Knowledge, Attitudes and Practices (KAP) on marine litter prevention. While the knowledge component merely captures participants' understanding of marine littering, questions on attitudes and practices seek to reflect more actionable parameters such as the general willingness to change the participants' own behaviour and their observed every-day actions affecting the generation of single-use plastic waste. The KAP surveys will be conducted as part of all events and stakeholder interactions which seek to create awareness on marine litter prevention in order to adequately reflect the changes in KAP before and after the project's interventions.

Lastly, the project will make available the tools, results and lessons of awareness raising, capacity building and demonstration activities within global and regional networks (A IV.4). Utilising similar channels activated as part of WP III, this will comprise UNCLOS, MARPOL and Cartagena Conventions as well as international fora such as the ISWA, CCAC, the PREVENT Waste Alliance etc. Despite being aligned with the capacity building, networking and replication activities under WP III, the outreach and dissemination component of the project will be used to communicate the key results of the pilot cases implemented under WP II.

Activity (A IV.1)

Develop, consolidate and publish best practice materials for awareness creation and education for stakeholders from civil society, public and private sector based on regional and international best practices.

Activity (A IV.2)

Organise awareness raising events on waste prevention (e.g. beach and river cleanups to collect marine debris). Activity (A IV.3) Conduct surveys and evaluations to assess knowledge, attitudes and practices (KAP) on marine littering amongst stakeholders from civil society, the public and private sector. Activity (A IV.4) Disseminate and make available the project's tools, results and lessons within global and regional networks. 4.2.7 Technical, High Level Risks (Overall Risk Category) political and Risk type Risk description Probability Conseque Risk minimisation economic (technical, strategy nce Risks political. economic. social) Political High Elections on national High The project will work closely with the and municipal level13 (particularly in technical personnel in demonstration sites) the ministries (e.g. for may result change the EPR - WP III) and political framework municipalities (e.g. for conditions under which pilot cases – WP II). Election cycles will be the project operates, e.g. new decision considered in planning makers and technical of activities. New staff may be put in decision makers and staff will be sensitized charge, thus creating transactions costs. This and trained on the job. may results in shifting Results and products, priorities and/or less such as tools for political support for the improving waste implementation of the management, will be project's activities. embedded in the relevant political Affecting: outcome, institutions, but also in output I-III sector organizations. High Economic. Due to the potentially Moderate Emphasize economic social enduring COVID-19 benefits of marine litter crisis, governmental prevention, reuse and resources at national recycling, e.g. for and municipal level and tourism and fishery within economic sectors. The project will sectors may be lower focus on than pre-crises levels, communicating the thus translating into benefits of mitigation measures for green lower ability-to-pay for waste management recovery. services and mitigation strategies for marine litter; more specifically,

¹³ Election cycles differ widely across the three target countries. In the Dominican Republic national elections took place in 2020 and the next one is scheduled for 2024. In Costa Rica, national elections are scheduled for February 2022 and municipal elections will be held uniformly in February 2024. In Colombia, the next presidential elections will take place in May 2022 whereas elections for municipal mayors will be held in October 2023.

stakeholders may be able to mobilise less funding for waste management measures

Moderate Le Risk type (technical, political, economic, social)	than initially anticipated and political barriers for the introduction of pilot measures (e.g. waste fees) may be lower Affecting: outcome, output II	Category) Probability	Conseque nce	Risk minimisation strategy
Technical	The plastic producing and importing industry may be resistant to engaging in dialogue on EPR and become subject to stricter regulations. Affecting: outcome, output III	Moderate	Moderate	Seeking open dialogue by involving wide range of stakeholders in close cooperation with government authorities and aligned with national policies. In addition, the project will highlight the limited financial consequences for producers of being subjected to EPR fees (these are usually much lower than initially anticipated by the private sector) and will emphasise the creation of a level playing field so that all private sector stakeholders will be affected equally.
Social, technical	Due to the potentially enduring COVID-19 crisis, travel restriction may reduce the possibility for personal face-to-face meetings and events (cf. section 5.3 below). This may create technical challenges on a project management basis, e.g. by inhibiting effective coordination within the team. Affecting: outcome	Moderate	Low	The project will flexibly adapt to the changing COVID-19 conditions and will closely monitor travel restrictions, thus abiding by national and international regulations. At the same time, the team will increasingly make use of innovative online tools (e.g. zoom, Miro, Nextcloud) and shift stakeholder events to online formats (e.g. webinars, virtual study tours).

Social	Representatives of the	Low	Moderate	The project will
Social	Representatives of the informal sector may be reluctant to engage and cooperate with project staff, thus limiting the team's ability to implement monitoring, pilot and awareness raising activities. Affecting: outcome, output I-II	Low	Moderate	The project will approach representatives of the informal sector in a structured manner (interacting/coordinat ing primarily via designated spokespersons) and will treat them respectfully. The team will focus on communicating the beneficial consequences of the project advocating the rights and importance of the informal workforce
				for the provision of basic waste management services.

Low Level Risks (Overall Risk Category)

Risk type (technical, political, economic, social)	Risk description	Probability	Conseque nce	Risk minimisation strategy	
No low level risks have been identified.					

4.3 Other characteristics of the project

4.3.1 Visibility of the project

At the national level, visibility to partner governments and in relevant sectors of the society will be ensured by organizing, at national level, technical and dissemination events in close cooperation with the highest possible level of the partner ministries. These events will also involve other ministries relevant for the issue (e.g. for industry, for fishery, for tourism, for education), sector organizations (e.g. of industries – among them plastic producers, of tourism enterprises, municipalities, waste management professionals and of waste management enterprises), as well as consumer organizations and representatives of the informal sector.

Despite replicating pilot cases in WP III, the project will collaborate with international platforms (e.g. C40 Cities Network, ISWA, CCAC, Network of Cleaner Production Centres, C40 Cities Network, PREVENT, the RETech network) in order to create multiplier effects. This will materialize in form of feeding the project experiences (e.g. lessons learnt from pilot implementations, technological innovations, EPR processes) and products (e.g. methodologies, tools to improve waste managements, specific guides e.g. for baseline determination, monitoring or beach campaigns, training and sensitization materials) into respective information and dissemination platforms, as well as in participation in events and technical publications, in this way contributing to the political and technical dialogue.

Through Parley's global partnerships with South Asia Cooperative Environment Programme (SACEP) and the World Bank (amongst others) the project has high potential for developing global significance and large-scale visibility. Through a liaison to the Cartagena Convention Secretariat, the project team has access to the Global Partnership on Marine Litter, the BASEL Plastics Partnership and its information sharing platforms including UNEP's cooperate website, government focal point networks, media

contacts, and technical partners. This will enable broad and wide visibility for the project in English, Spanish and French.

The general public, particularly population in sensitive areas, school students and waste generators in general, will be the focus of the project's website, to be created within the first six months of project implementation, with expected impact within the project countries and the Spanish-speaking Latin American and Caribbean region. In each of the three countries specific and adapted campaigns via all channels of social media, radio, television will be launched. Educational materials on marine litter will be offered to schools, promising to sustainably promote avoidance and recycling concepts among families. Such social media and educational materials will be in an efficient way produced centrally and adapted only in the aspects specific to the individual countries.

4.3.2 Securing sustainability and multiplier effect after termination of funding ("Exit Strategy")

By building capacities of public authorities through training workshops and training-on-the-job during pilot implementations, the project will institutionalise marine litter prevention within various governance levels (local to central). Likewise informal workers and their organizations will be trained particularly on how to maintain their structure after project end. At ministry level, supporting EPR-implementing processes will sustainably strengthen respective capacities and create ownership beyond the project implementation. In addition, the project will capitalise on the team's active participation in regional and international fora, such as the Caribbean Regional Node for Marine Litter, the Global Marine Litter Partnership (GPML), the BASEL Plastics Waste Partnership, Climate and Clean Air Coalition (CCAC), the International Solid Waste Association (ISWA), the Network of Cleaner Production Centres, the PREVENT Waste Alliance, and the German RETech Network to anchor results amongst the wider public.

Results will be embedded in the relevant institutions by supporting sustainable structures at municipal level and elaborating, aiming at integration into their processes, guides and decision-making tools on waste fees, implementing separate collection, closing dump sites, compilation of existing financing sources, and other topics. Such guides will be prepared commonly with the target groups and sector organizations and made available for pilot and other municipalities as well as to ministries and all interested actors at national scale. Inclusion of informal sector workers in municipal processes, e.g. separate collection and sorting, will be promoted through capacity building, continuous training and technical assistance programmes, model contracts, identifying financing sources for investments continuous support.

Long-term financing of project results will be sought by identifying and promoting financing sources for further support (e.g. governmental funds, development banks, foundations, NGOs and the private sector via EPR obligations). Subject of financing could be contributions to waste management investments, or continuous training and technical assistance programmes for associations of waste pickers and municipalities, based on the project's developed products and methodologies. In practical terms, the project will enhance access to finance by (e.g.) elaborating concept notes, helping to prepare proposals and fostering the dialogue with governmental funds, development banks, foundations to establish criteria to reduce plastic/marine litter pollution. With regards to the pilot case in the Dominican Republic for instance, it is planned to fully adapt the ongoing operations (incl. financing) into Parley's global process and supply chain. It is planned to establish a self-sufficient and economical sustainable business operation. This will allow Parley to employ waste pickers and other workers also after the project duration. It is envisioned to roll out this pilot case all over the country after tested and proven.

Replicability of results will be assured by carefully defining selection criteria for pilot implementation regarding their technical orientation and location to assure maximum representativeness. Pilot experiences will be processed and disseminated in the three and neighbouring countries to foster pilot case replication as described in WP III. Despite replicating pilot cases in WP III, the project will collaborate with international platforms (e.g. C40 Cities Network) in order to create multiplier effects. Through Parley's global partnerships with South Asia Cooperative Environment Programme (SACEP) and the World Bank (amongst others) and the involvement of the UNEP Cartagena Convention Secretariat including support from the UNEP Regional Office for Latin America and the Caribbean in Panama and the UNEP Global Programme of Action as Secretariat for the GPML, the project has high potential for developing global significance and long-term sustainability even beyond the implementation period.

4.3.3 Gender mainstreamin g

During all phases of the project, gender aspects will be considered. A special focus on gender is foreseen with regards to including the informal waste sector as a beneficiary group of the project's activities and objective. Whilst informal waste sector workers in general are subject to precarious living and working conditions, significant differences within the group of informal waste sector workers between men and women regarding earnings, working conditions, as well as safety and security have been documented. Further, the fact that in most countries the informal waste sector is dominated by women workers, the integration of informal sector into formal structures with improved compensation, health and safety provisions is a profound factor to improve women's and families' livelihoods.

The project will also indirectly benefit women and families by providing a cleaner and healthier environment. Since it is mainly women who care for the young, sick and elderly, the positive impact of a cleaner environment will benefit women in particular.

4.3.4 Co-Benefits (Contribution s to economic, social, environmenta

development as well as the development of good governance) The prevention and reduction of plastic pollution in the Caribbean Sea makes a direct contribution to preserving marine wildlife and ecosystems (SDG 14), preserving fisheries (SDG 2), and reducing microplastic in our food chains (SDGs 3 & 6). The waste management sector may become a driver of green growth (SDG 8). By promoting the use of lifecycle tools and the implementation of EPR, the project will contribute to shifting towards more sustainable production and consumption patterns (SDG 12).

In which pillars of sustainable development are the described co-benefits located?

- ⊠ social: by supporting the integration of the informal sector into formal value chains, upgrading their livelihoods, and by working towards cleaner, safer and healthier environments for communities through improvements in municipal waste management from collection to transportation, storage and final disposal.
- environmental: by mitigating plastic pollution in the Caribbean Sea through resource efficiency improvements in the plastic value chain (EPR incentives for ecodesign) as well as boosting recycling rates.
- \boxtimes economic: by enhancing the competitiveness of local businesses and driving green inclusive growth in all three target countries.
- 🖂 good governance: by supporting the adoption and implementation of EPR schemes as key governance mechanisms for sustainable waste management systems.

5 Interaction with international cooperation projects and other relevant aspects

5.1 Synergies with and links to other relevant projects and sectors (of German and international cooperation)

Cooperation potential and synergies will be actively sought and systematically evaluated, beginning in the project's inception phase, in the three countries as well as in the region. This relates to on-going and upcoming related initiatives, such as technical or financial cooperation, which might be supported nationally, internationally or by Germany. Since reducing and recycling plastic waste contributes to mitigating greenhouse gas (GHG) emissions, synergies and cooperation potentials will also be identified with climate-related and waste projects in the Latin America and Caribbean region. Examples include:

- Dominican Republic: Solid waste management related projects supported by Japan International Cooperation Agency (JICA), United States Agency for International Development (USAID) and Inter-American Development Bank (IADB)
- Costa Rica: Various projects on solid waste management initiated by Rural Development Institute (INDER) and climate-related projects implemented by GIZ, or currently under evaluation such as supporting a solid waste Nationally Appropriate Mitigation Actions (NAMA).
- Colombia (and Brazil): The project "Green Jobs Increasing recycling rates for waste" (GIZ Project-no. 2018.2139.6 001.00) has already commenced its activities in Bogotá and Cúcuta. It aims at improving frameworks conditions for circular economy and at strengthening recycling schemes, with particular focus on plastics, integration of informal sector and capacity building measures. The EU-project "Reducing plastic waste in the Americas – Ensuring sustainable consumption and production patterns, Brazil and Colombia" (EuropeAid/140-

603/DH/SER/MULTI) aims at supporting "a transition to sustainable production and consumption of plastics in the Americas Region and contribute to significantly reducing marine and riverine litter, including by supporting European approaches, policies and business models". It is expected to start by beginning of 2021 and includes activities concerning EPR schemes and awareness, among others.

• Regional: Various projects and activities on solid waste, marine litter and plastics being implemented by the Cartagena Convention Secretariat (UNEP) including in coordination with the Regional UNEP office for Latin America and the Caribbean and the Gulf and Caribbean Fisheries Institute (GCFI) as the cohost of the Caribbean Regional Marine Litter Node; Brazil: The program "Lixo Fora D'Água" ("Keep waste out of the water") is implemented by Abrelpe in nine coastal municipalities around Santos, state of Sao Paulo, in cooperation with the Brazilian Ministry of Environment, and financed with funds provided by the Swedish Environmental Protection Agency. The main goal is marine litter prevention by improving local waste management systems, executing baseline studies, data collection, installing monitoring systems, conduct awareness raising campaigns, among many other activities. It is foreseen to systematically transfer tested methodologies, adapt materials to the project countries' conditions and generally benefit from the Brazilian project's lessons learnt.

The project will also follow up and synergise with regional activities under the "Regional Action Plan on Marine Litter Management (RAPMaLi) for the Wider Caribbean Region" by UNEP. A strong cooperation is foreseen with the Cartagena Convention, potentially as implementing partner at a later stage (cf. 5.3 below). Among other fields, knowledge management and communication can be strengthened in the three countries but also with a broader regional impact over the 28 countries covered by the Cartagena Convention. The Convention's regional public awareness raising activities in both Spanish and English, south-south exchange and sharing of best practices and experiences as well as regional trainings could be enhanced. Of particular importance would be facilitating high level political contacts within the Convention's governments of all project countries through their technical meetings (STACs) and Conference of Parties.

5.2 Notes on- own funds

 external funding - thirdparty grants The waste management sectors in the Dominican Republic, Costa Rica and Colombia currently lack the much-needed funds for creating financially viable value chains for secondary raw materials from plastic waste. To address this, the consortium will cooperate with development finance institutions (e.g. CAF, World Bank and IADB, national DFIs) and producers of plastic products in order to mobilise public/private sector investments and create markets for recycled plastic which is currently not being funded. Thus, no own funds or third-party grants have been identified.

As a collaborative network, Parley (via its US-based international entity Parley for the Oceans) will leverage its network for resources and mobilise complementary funding to strengthen the project's objectives. For example, Parley for the Oceans recently launched a partnership with the World Bank in SACEP (South Asia Co-operative Environmental Program) countries to end plastic pollution in rivers and seas (PLEASE), which is currently focused on South Asia but may be further expanded to other regions.

adelphi will provide 25,000 EUR in own funding. Currently no third party funding is expected or foreseen.

5.3 Other aspects relevant to funding

Contributions to COVID-19 response and green recovery

Despite potentially continued travel restrictions associated with COVID-19, the consortium is confident that the project can be implemented without delay because the partners can rely on a vast network of in-country experts. The team will strictly follow social distancing protocols and will abide by national and international recommendations for designated high-risk areas (e.g. based on national databases and the German Federal Ministry for Foreign Affairs). Awareness raising activities will increasingly be carried out via the most popular social media channels and public news outlets (radio, television).

In addition, the project will promote green recovery measures by engaging producers of COVID-19 plastic products such as personal protective equipment (PPE), plexiglas barriers etc. Through the implementation of pilot cases and promotion of EPR, the

project will incentivise the use of alternate materials for COVID-19 products, promote recycling and encourage design for recyclability. The project will thus contribute to reducing the growth of single-use plastic products increasingly applied in the context of COVID-19 (e.g. plastic bags). By engaging workers from the informal sector and providing them with PPE for protection against potentially infectious waste sources, the project will secure and enhance their livelihoods even in times of the on-going pandemic.

Currently, Parley is distributing 25,000 reusable visors to hospitals and NGOs in the Dominican Republic. These visors, produced using Parley Ocean Plastic®, are designed to be completely reusable, providing indefinite protection. In a unique lifecycle, marine plastic waste is collected from the shorelines of the Dominican Republic and will be transformed into upcycled PPE visors and soon returned back to the DR to offer aid and protection to the country's frontline workers. The visors are made with more robust 350-micron material, which allows them to maintain a longer lifespan and survive the cleaning process, versus its single-use PPE counterparts.

Involvement of the Secretariat of the Cartagena Convention (UNEP) as an implementing partner

The PROMAR consortium is actively engaging in discussions with the Secretariat of the Cartagena Convention and recommends to include it as an additional implementing partner in the project from 2021 onwards. The Secretariat was involved in developing this application and candidly shared its technical expertise for refining the activities proposed by the PROMAR project. Initial discussions between the BMU, ZUG, the Secretariat and adelphi have already taken place and identified large potential for complementarity and added-value creation.

• Capabilities and experiences relevant to the project

The UNEP Caribbean Environment Programme (CEP), which is also the Secretariat of the Cartagena Convention, promotes best practices and shares experiences about the management of solid waste, marine litter and plastics through various platforms. These include participation at regional and international conferences, social media campaigns on reducing the use of plastics, and the development of knowledge products in English, Spanish and French.

The Cartagena Convention was adopted by countries in the Wider Caribbean in 1983 and is the only legally binding agreement of its kind in the region for the protection of the Caribbean Sea. Through the Convention, governments receive support to control, reduce and prevent marine pollution from all sources. Marine Litter is one of the priority pollutants being targeted for improved management by the Cartagena Convention Secretariat. The Protocol Concerning Pollution from Land-Based Sources and Activities (LBS) of the Cartagena Convention which was signed in 1999 and adopted in 2010, along with the Regional Action Plan for Marine Litter (RAPMaLi) for the Wider Caribbean Region form the basis for the support provided to countries in the Wider Caribbean and the development and implementation of several marine litter programmes, projects and activities. The Secretariat is currently supporting the development of a subregional Marine Litter Action Plan involving Costa Rica and Colombia and in coordination with UNEP's Regional Office for Latin America and the Caribbean based in Panama.

The Caribbean Node of the Global Partnership on Marine Litter (GPML-Caribe), launched in 2016, is a partnership involving national, regional organizations, governments, research individuals that work together to reduce the quality and impact of marine litter and plastics in coastal zones of the Wider Caribbean Region. The Caribbean Node is hosted by the Gulf and Caribbean Fisheries Institute (GCFI), a regional not-for-profit organization, and the Secretariat of the Cartagena Convention. Over the last 5 years, the Caribbean Node has facilitated several projects for improving marine litter management in the region focusing on training, outreach, advocacy, resource mobilization and project development while also enhancing partnerships and collaboration.

Function/ role in the project proposed

Cartagena may be involved as co-Lead the implementation of activities A IV.1 and A IV.4 together with adelphi. The Cartagena Convention Secretariat is

responsible for facilitating communications, education, training awareness as part of its core Secretariat functions. This includes stakeholder mapping, preparation of knowledge management products as well as various social media campaigns. The Secretariat has programme, project technical and administrative technical staff to facilitate such outreach and awareness raising. In addition, the Secretariat can supporting the implementation of activities A III,1, A III.2, A III.3 and A III.4. The Cartagena Convention Secretariat has successfully facilitated transboundary cooperation within the framework of the Cartagena Convention and its protocols including negotiation on joint regional agreements, strategies and action plans, facilitated regional capacity building and training, enabled replication and upscaling of local, national and subregional projects including on marine litter while promoting best practices, exchange of experiences and adoption of innovative solutions at policy, institutional, legislative and technological levels.

Annex 1:

Political partners in the	implementing country	
Implementing country 1	1st Political partner	Ministry of Environment and Natural Resources
	Department	Vice-ministry of coastal and marine
	Additional address	Cayetano Germosén, Distrito Nacional
	Street Nr.	
	Postal code, town/city	Distrito Nacional
	Country	Dominican Republic
	Website	www.ambiente.gob.do
	Contact person	José Ramón Reyes
	Telephone number	+1 (829) 679-1892
	Email address	jose.reyes@ambiente.gob.do
	2 nd Political partner	Directorate for Strategic Projects and Special Presidential Programmes (DIGEPEP)
	Department	General Direction
	Additional address	Oficinas Gubernamentales Juan Pablo Duarte,
		Av. México, Esquina Leopoldo Navarro. 6to. Piso
	Street Nr.	
	Postal code, town/city	Distrito Nacional
	Country	Dominican Republic
	Website	www.digepep.gob.do
	Contact person	José L. Cabrera
	Telephone number	
	Email address	neney.cabrera@digepep.gob.do
Implementing country 2: Costa Rica	1st Political partner	Ministry of Public Health
Oosia Hioa	Department	Directorate of Radiological Protection and Environmental Health
	Additional address	
	Street Nr.	16
	Postal code, town/city	10103, San José
	Country	Costa Rica
	Website	https://www.ministeriodesalud.go.cr/
	Contact person	Eugenio Androvetto

	Telephone number	2221-6058
	Email address	eugenio.androvetto@misalud.go.cr
	2 nd Political partner	Ministry of Environment and Energy
	Department	Vice Ministry of Water and Ocean Affairs
	Additional address	
	Street Nr.	8
	Postal code, town/city	11501, San Pedro, San José
	Country	Costa Rica
	Website	https://www.minae.go.cr/
	Contact person	Haydée Rodríguez Romero
	Telephone number	2233-4533
	Email address	viceaguas@minae.go.cr
Implementing country 3: Colombia	1 st Political partner	Ministry of Environment and Sustainable Development
	Department	Sustainability Group of the Productive Sectors
	Additional address	
	Street Nr.	Calle 37 No. 8-40
	Postal code, town/city	Bogotá
	Country	Colombia
	Website	www.minambiente.gov.co
	Contact person	Carlos Jairo Ramírez
	Telephone number	+57 1 3323400
	Email address	cjramirez@minambiente.gov.co

Implementing partner(s)/ Subcontractor(s)							
1. Implementing		Subcontractor					
	Name	Parley República Dominicana SRL					
	Department						
	Additional address	Calle Principal, Manzana C #4, Residencial Amarilis III. Santo Domingo Este, Santo Domingo					
	Street Nr.						
	Postal code, town/city	Santo Domingo					

	Γ	
	Country	Dominican Republic
	Institution	Private company
	Website	www.parley.tv
	Legal structure	LLC equivalent Sociedad de Responsabilidad Limitada
		Non-profit status: ☐ yes ☐ no
	Contact person	Eddy Frank Vasquez
	Telephone number	+1 (829) 457-6748
	Email address	eddy@parley.tv
	Total staff	16
	Staff for the project	36 (3 project staff and 33 operational staff)
	Year established	2018
	Turnover [EUR/year]	106,000 EUR/year
	Experience in the target region [years]	4 years (in 2016 was Parley's first Caribbean cleanup); Parley DR Director has over 8 years of experience in the region
	Experience in activities relevant to the project [years]	Together with its international mother entity Parley for the Oceans, Parley DR can look back at over 8 years of experience
2. Implementing		Subcontractor
partner/ Subcontractor	Name	Fundación Centro de Gestión Tecnológica e Informática Industrial CEGESTI
	Department	San José
	Additional address	Condominio Latitud Dent, oficina no. 304
	Street Nr.	Av. 5 & Boulevard Dent
	Postal code, town/city	11501 San Pedro, San José
	Country	Costa Rica
	Institution	Non for profit organization
	Website	www.cegesti.org
	Legal structure	Fundación
		Non-profit status: ⊠ yes □ no
	Contact person	Daira Gómez
	Telephone number	+506 2280-8511
	Email address	dgomez@cegesti.org

	Total staff	9 full time contracts plus temporary contracts according to specific projects
	Staff for the project	4
	Year established	1990
	Turnover [EUR/year]	350,000 EUR/year; Between 2014-2017 the average turnover was around 500,000-600,000 EUR
	Experience in the target region [years]	30
	Experience in activities relevant to the project [years]	20
3. Implementing		Subcontractor
partner/ Subcontractor	Name	Centro Nacional de Producción Más Limpia y Tecnologías Ambientales – CNPML
	Department	Executive Direction
	Additional address	
	Street Nr.	Carrera 46 # 56-11, piso 8
	Postal code, town/city	Medellín
	Country	Colombia
	Institution	Non for profit Organization/NFO
	Website	www.cnpml.org
	Legal structure	Nor for profit Organization
		Non-profit status: ⊠ yes □ no
	Contact person	Carlos Arango
	Telephone number	+57 4 460 1777
	Email address	Carlos.arango@cnpml.org
	Total staff	15
	Staff for the project	3
	Year established	1998
	Turnover [EUR/year]	116,400 EUR/year (average 2017, 2018 & 2019)
	Experience in the target region [years]	22
	Experience in activities relevant to the project [years]	22

4. Implementing partner/ Subcontractor		Subcontractor
partitel/ Subcontractor	Name	Brazilian Association of Public Cleaning and Waste Management Companies - ABRELPE
	Department	Technical Department
	Additional address	Paulista Avenue
	Street Nr.	807/207
	Postal code, town/city	01311915, São Paulo
	Country	Brazil
	Institution	Non-governmental and not for profit association
	Website	www.abrelpe.org.br
	Legal structure	ABRELPE is a national non-governmental and not for profit association, established in 1976. Based in Sao Paulo, Brazil, the association congregates urban cleansing and waste management companies in all its areas. ABRELPE's mission is to promote the technical and operational development of the waste management sector, always based on environmental and sustainable directives. Since 1996 ABRELPE is the National Member of the International Solid Waste Association (ISWA) in Brazil, playing an active role within the association by supporting and cooperating with its projects.
		Non-profit status: ⊠ yes □ no
	Contact person	Mrs. Gabriela Otero / Mr. Carlos Silva Filho
	Telephone number	+5511 32975898 / +5511 986010972
	Email address	gabriela@abrelpe.org.br / carlos@abrelpe.org.br
	Total staff	7
	Staff for the project	5
	Year established	1976
	Turnover [EUR/year]	400,000 EUR
	Experience in the target region [years]	12 years
	Experience in activities relevant to the project [years]	6 years

Annex 2: Application of ZUG Safeguards under the Grant Programme against Marine Litter

It is mandatory for implementing organizations to apply the **ZUG Safeguard System** (GCF and interim IFC Performance Standards). Application of the ZUG Safeguards will provide both, implementing organizations and the BMU/ZUG, with a tool to holistically monitor and avert potential negative environmental and social impacts of projects under the Grant Programme against Marine Litter. This guarantees high quality project implementation.

Reporting on Performance Standards:

In the table below, please do the following:

- Elaborate on the **environmental and social risks** potentially caused **by project or project-related activities** for every Performance Standard. Justify where you expect no risks to occur.
- Determine the significance of risk and rate it A to C (see below) for every Performance Standard.
- Identify appropriate risk mitigation measures for each Performance Standard rated A to C.

The **guiding questions** provide orientation on the respective Performance Standards. Please refer to the <u>IFC Performance Standards on Environmental and Social Sustainability</u> for comprehensive guidance about how to assess potential risks. Performance Standard 1 does not apply in this context.

Determining the significance of risks:

The significance of risks is based on the following aspects:

- **Scale** (i.e. number of affected people, hectare) and **intensity** (i.e. degree of marginalization of vulnerable groups, degree of restriction of water access) of the (potential) impacts/disturbances
- **Frequency/recurrence** of the (potential) impacts/disturbances (place, duration, timing)
- **Sensibility/vulnerability** of affected people, groups, species or habitats (in light of their adaptation capacities)
- **Irreversibility** of changes (in light of the potential to restore/regenerate the original conditions, after the (potential) impacts/disturbances have materialized)

<u>Determining the risk category for each Performance Standard:</u>

As a result of the screening for significance, each Performance Standard should be rated as follows:

- A Activities with high adverse environmental or social risks and/or impacts that are diverse, irreversible, or unprecedented.
- **B** Activities with **moderate** adverse environmental or social risks and/or impacts that are few in number, largely reversible, generally site-specific, and readily addressed through standard mitigation measures.
- **C** Activities with **low** adverse environmental or social risks and/or impacts.

N/A – Activities with **no** adverse environmental or social risk and/or impact.

Determining the overall risk category of the project:

- The **overall risk category** corresponds to the **highest risk category** identified based on a **screening of all Performance Standards**.

For projects with an overall risk category A or B, please integrate the most relevant identified mitigation measures into the overall project management and monitoring.

Overall risk category (A-C)	C

Reporting on Performance Standards

Performance Standard	Guiding Question Please note all impacts caused directly or indirectly by project activities. Consult IFC PS to cover all aspects.	Summary of risk Description of risks analyzed based on IFC Performance Standards, including contributing factors such as location and activities associated with the project.	Risk (A-C)	Planned mitigation measures, responsible party and schedule Options to avoid, minimize, mitigate risks and impacts. This may also include additional due diligence and specific management plans. Note measures for each identified risk.	Expected results of mitigation Note results in a measurable way. Bullet points suffice.
PS 2 Labor & Working Conditions	Can project activities possibly cause harm to workers? (covers labor law compliance, workers association rights, workers' health and safety, forced labor, child labor)	The project will engage (directly and indirectly) with workers in the waste sector, including informal workers that may experience unsafe working conditions and other violations to basic workers' rights. Informal workers may be exposed to hazardous materials (e.g. when scavenging for materials from landfills, rivers and beaches). Overall, this risk is perceived to be neither very high nor very low (medium, risk category B) because the project will apply international good practices in line with the highest occupational health and safety (OHS) standards.	В	Measures: The consortium will deploy targeted risk mitigation measures to ensure that informal workers, who are directly or indirectly employed by the project, comply with existing labour laws, follow strict OHS protocols and will be equipped with personal protective equipment (PPE; e.g. safety goggles, aprons, gloves and safety boots). Such measures include trainings on proper collection, sorting and treatment of different waste fractions as well as minimum standards of international labour right in line with the ILO ¹⁴ (e.g. no-child-labour policy, right to form associations). Further, the consortium will develop and disseminate guidance documents (e.g. handouts and checklists on good OHS practices and labour standards) amongst the targeted workers. These will make extensive use of pictorial elements (step-by-step photos) to account for the high prevalence of illiteracy. Moreover, the consortium will carry out regular audits to ensure that the working practices are thoroughly monitored, labour rights are respected and none of the stipulated OHS measures are breached. In case any non-compliance is observed, the consortium will identify the responsible stakeholders and conduct a root cause analysis in	 Reduction of child labour and other forms of forced labour Strengthened workers' rights (i.e. to formalise and form associations) Safer working conditions by avoiding hazardous working practices (application of OHS protocols and safety gear) Improved livelihoods through increased and more regular incomes (payments at least in line with national minimum wage)

https://www.ilo.org/global/standards/applying-and-promoting-international-labour-standards/lang--en/index.htm
 In this context, the ILO serves as an excellent knowledge repository, offering standards and resources for engaging with informal workers that will be referred to in the course of the PROMAR project. More information can be found at: https://www.ilo.org/global/topics/%20employment-promotion/informal-economy/lang--en/index.htm

PS 3 Resource Efficiency & Pollution Prevention	Are there potential negative impacts on the environment through inefficient use of resources or pollution? (air, water, land pollution, GHG emissions, efficient resource use, technology applied based on Good International Industry Practice)	Potential negative environmental impacts arise from crude processing practices prevalent in the informal economy and the gradual formalisation of the informal economy, which are expected to adopt more advanced processing techniques as a result of the project. As early-stage formal waste industries are often found to rely on sub-optimal processing equipment, this may lead to an inefficient use of resources and increase in greenhouse gas (GHG) emissions. GHG emissions are not expected to exceed 25.000 t CO ₂ -eq per year. Similarly, potential adverse impacts on the environment may arise from the circular economy solutions applied as part of the project, particularly those relying on the deployment of technologies as part of the pilot and replication cases. For instance, technologies to be deployed may cause harm to local ecosystems. However, this risk is perceived to be medium (risk category B) because the project will promote the application of best available technologies (BAT) and will	В	order to resolve the issues in the best interest of the affected workers. Responsible: All partners working with informal workers as well as the staff directly in charge for carrying out the activities. Schedule: Continuously throughout the project but mostly during activities which directly target workers in the informal economy. Measures: The consortium will ensure that informal and formalised workers will follow strict EHS protocols when engaged as part of the project. They will be trained on safe processing techniques (e.g. no burn policies, adequate separation and disposal of hazardous fractions), applying similar guidance documents and pictorial materials as mentioned under PS 2 above. Formalised workers, who seek to scale up their waste management activities, will be trained on the selection of optimal technologies that do not entail excessive costs and result in no additional use of resources and greenhouse gas emissions. Upon successful implementation of the trainings, the consortium will perform regular audits in order to ensure compliance. In the same way, if noncompliance is observed, the consortium will identify the responsible stakeholders and conduct a root cause analysis in order to resolve the issues to safeguard the environment. In order to mitigate the negative environmental impacts of technology-driven circular economy solutions (e.g. new processing equipment, river interceptors), Environmental Impact Assessments (EIAs) will be carried out before their deployment. This will ensure that potential adverse impacts are intentified and mitigated prior to insplantation.	Safer working conditions Protection of local ecosystems Net reduction in GHG emissions and resource consumption Less open fires, thus resulting in less pollution to a water and land Saving resources conserving embodied energy of products and services	air,
		project will promote the application of best available technologies (BAT) and will ensure that the highest environment,				

health and safety (EHS) standards are applied amongst informal and formalised workers (e.g. by following the waste hierarchy). Hence, resource savings and reductions in carbon emissions achieved by the adoption of processing technologies and circular economy solutions will significantly outweigh the inefficient use of resources and increase in GHG emissions.

would cause irreversible damage to local ecosystems, the solutions will not be deployed. Instead, they will either be redesigned or moved to other, more suitable locations to avoid the damages altogether.

Moreover, the EIAs will also quantify GHG emissions, which may potentially result from the deployment of technology-driven circular economy solutions. If the emissions are found to exceed the CO₂ equivalent of 25.000 t per year, the consortium will make use of internationally recognised offsetting mechanisms. Given that lead applicant adelphi has been offsetting its own GHG emissions for more than 10 years¹⁶ and is actively contributing to the improvement of international emissions trading schemes¹⁷, the consortium can rely on extensive expertise in this field.

Going beyond the implementation of trainings and EIAs, the circular economy solutions will be selected in line with the waste management hierarchy. Preference will be given to solutions that enable prevention of waste at the source, followed by (in order of decreasing importance) preparation for reuse, recycling, recovery and final disposal. This will ensure that resources are saved and the embodied energy in products and services is conserved. Moreover, the solutions deployed and promoted by the PROMAR project will not include burning plastic for the production of energy.

Responsible: All partners working with informal and formalised workers as well as the staff directly

¹⁶ https://www.adelphi.de/de/system/files/mediathek/bilder/Urkunde%20Klimaneutralit%C3%A4t%202019%20-%20adelphi.pdf.PDF

¹⁷ https://icapcarbonaction.com/en/

				in charge for carrying out the activities on pilot and replication cases. Schedule: Continuously throughout the project but mostly during activities which directly target workers in the informal economy and are concerned with the implementation of pilot cases.	
PS 4 Community Health, Safety, and Security	Are there potential negative impacts on health, safety and security of the affected population? Will human rights – as expressed in international and regional human rights treaties – be safeguarded?	There are no negative impacts on health, safety and security of the affected population to be expected. Human rights will be safeguarded at all times.	С	Measures: N/A Responsible: N/A Schedule: N/A	N/A
PS 5 Land Acquisition and Involuntary Resettlement	Does the project anticipate, avoid and, where avoidance is not possible, minimize displacements and/or adverse social and economic impacts from land acquisition or land use restrictions? (covers physical displacement (relocation, loss of shelter) and economic displacement (loss of access to assets, income sources)) Projects causing forced evictions are excluded from funding!	No resettlement will be undertaken due to project activities.	С	Measures: N/A Responsible: N/A Schedule: N/A	N/A
PS 6 Biodiversity Conservation & Sustainable Management of Living Natural Resources	Will project activities potentially lead to negative impacts for biodiversity, ecosystem services, or living natural resources? (covers loss/degradation/fragmenta tion of habitat, overexploitation, pollution, invasive species)	The circular economy solutions (particularly those relying on the deployment of technologies as part of the pilot cases at selected demonstration sites) may result potential hazards for the biodiversity in marine and riverine environments.	С	Measures: Prior to the implementation of technological solutions, environmental impact assessments (EIAs) will be carried out. In case the assessments give rise to concerns about severe impacts on local ecosystems and biodiversity, the solutions will either be redesigned in order to mitigate negative results or will not be implemented at all. In principle, solutions will be selected in line with the waste management hierarchy. Preference is given to solutions that enable prevention of waste	 Identification and avoidance of negative environmental impacts on local ecosystems Saving and preserving natural resources

				at the source, followed by (in order of decreased importance) preparation for reuse, recycling, recovery and final disposal. This will ensure that potentially negative impacts on biodiversity, ecosystem services and natural resources are avoided. Responsible: All partners working with informal workers as well as the staff directly in charge for carrying out the activities. Schedule: Continuously throughout the project but mostly during activities which are concerned with the implementation of pilot cases.	•	Enhancing ecosystem services Conservation of natural resources
PS 7 Indigenous Peoples and Marginalized Groups	Will project activities lead to potential negative impacts for indigenous peoples or marginalized communities? (Covers respect for dignity and human rights, loss of identity or culture, loss of natural resource based livelihoods (land use/resource use), protection of indigenous culture, knowledge, practices)?	The waste sectors in the Dominican Republic, Costa Rica and Colombia provide livelihoods to a considerable number of people from marginalized groups, such as informal waste pickers, many of whom are women. Given that informal waste pickers are an important stakeholder group and are likely to become more visible as part of the project (e.g. as part of WP II when implementing circular economy solutions), they may initially experience disrespect or even hostility vis-à-vis the general public and other relevant stakeholders. Furthermore, when undergoing a process of formalization, marginalized informal workers may be confronted with the choice to give up their typically entrepreneurial livelihoods in favour of becoming part of formal value chains - e.g. by joining a waste picker association or being employed by formal collectors/recyclers. The entrepreneurial, self-sufficient mind-set is an essential part	В	Measures: The PROMAR consortium will implement a range of measures to ensure that adverse effects on marginalized groups, mainly informal workers, are avoided. Whenever engaging with the general public and other relevant stakeholders (e.g. as part of workshops in WPs I-III or during awareness raising campaigns in WP IV), the consortium will emphasize the importance of the informal workforce in performing essential services in the interest of the public good. In addition, PROMAR will highlight the role of women in providing livelihoods to their families within informal ecosystems, thus mobilizing public recognition and empowering them to act self-confidently. When supporting informal workers to become part of formal value chains, the consortium will ensure that formal waste management activities are carried out under dignified conditions. For instance, formalized workers will be supplied with identity cards and working gear that adequately reflect their social status as professional service providers. Moreover, during capacity building workshops (e.g. taking place as part of WP II	•	Public recognition of marginalized groups, particularly informal workers (e.g. waste pickers) Women empowerment leading to greater gender equality Increased self-reliance of formal workers in the waste sector Preservation of cultural heritage and entrepreneurial mind-sets

		of the self-image of many informal workers and is often passed on over multiple generations. Hence, the project may trigger deep behavioural shifts and can adversely affect the corresponding cultural heritage. The potential risk can be considered medium.		when implementing circular economy solutions), workers will be empowered to organize self-reliantly and take matters into their own hands, e.g. by electing spokespersons who will communicate on their behalf. To this end, the project will provide practical guidance ensuring that the entrepreneurial mind-set and cultural heritage of informal and marginalized communities are preserved in the process. Responsible: All partners working with marginalized groups and informal workers as well as the staff directly in charge for carrying out the activities. Schedule: Continuously throughout the project but mostly during activities which are concerned with the implementation of pilot cases and awareness raising.	
PS 8 Cultural Heritage	Will project activities lead to potential negative impacts on (tangible / intangible) cultural or natural heritage? Does the project promote the equitable sharing of cultural heritage benefits?	There will be no adverse effects on cultural or natural heritage.	С	Measures: N/A Responsible: N/A Schedule: N/A	N/A