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Child Project 1.3: Financing Advanced Environmental Technologies in the Mediterranean Sea Region for Water Systems and Clean Coasts (EnviTeCC)

Project Document

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Abbreviations and acronyms

BAT	Best Available Technology
BEP	Best Environmental Practice
BREFs	Best Available Techniques Reference Documents
CoO	Countries of Operation
CSO	Civil Society Organisations
CW	Chemicals and Waste
DDT	Dichlorodiphenyltrichloroethane
ESM	Environmental Sound Management
ETCs	Early Transition Countries: Armenia, Azerbaijan, Belarus, Georgia, Kyrgyz Republic, Moldova, Mongolia, Tajikistan, Turkmenistan and Uzbekistan.
EU	European Union
EUR	The official Currency of the EU
FEMIP	Facility for Euro-Mediterranean Investment and Partnership
FIN-TeCC	Finance and Technology Transfer Centre for Climate Change
EnviTeCC	Financing Advanced Environmental Technologies in the Mediterranean Sea Region for Water Systems and Clean Coasts
FRM	Final Review Memorandum
GAP	Gender Action Plan
GCAP	Green City Action Plan
GEF	Global Environment Facility
ICZM	Integrated Coastal Zone Management
IFI	International Financial Institutions
IPCC	Intergovernmental Panel on Climate Change
IW	International Waters
MDBs	Multilateral Development Banks
MEI	Municipal and Environmental Infrastructure
NAP	National Action Plan
PAH	Polycyclic aromatic hydrocarbons
PCB	Polychlorinated biphenyls
PE	Population Equivalent
PFD	Programme Framework Document
POP	Persistent Organic Pollutant
PPP	Public Private Partnership
SAP	Strategic Action Programme
SEMED	Southern and Eastern Mediterranean
SMEs	Small and Medium Enterprises
STAP	Scientific and Technical Advisory Panel
TC	Technical Cooperation
TNA	Technology Needs Assessments
TPI	Technology Penetration Index
TSO	Transmission System Operator
UNEP	United Nations Environmental Programme
USD	United States Dollar
VC	Verification Consultant
WWTP	Waste Water Treatment Plant

EXECUTIVE SUMMARY

The Project "Financing Advanced Environmental Technologies in the Mediterranean Sea Region for Water Systems and Clean Coasts" (EnviTeCC) seeks to accelerate investments in wastewater treatment and POPs elimination and reduction with the aim of embedding pollution prevention and reduction techniques, technologies and practices into the management practices of private and publicly-owned businesses in Albania, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco, Tunisia and Turkey[1]. This objective will be achieved with support from a combination of GEF funds within the International Waters (IW) and Chemicals and Waste (C&W) focal areas with EBRD co-financing and, where possible, complemented with investments from other co-financiers and/or sponsors equity. The Project is a Child Project under the GEF-funded programme led by UN Environment called "Mediterranean Sea Programme: Enhancing Environmental Security" (MedProgramme).

The Project has an allocation from the GEF of USD 5,000,000 for capital grants and technical assistance from the IW resource envelope; USD 3,750,000 for capital grants and technical assistance from the C&W resource envelope; inclusive of an overall USD 787,500 for project management.

The Project consists of four Components:

- **Component 1: Technical Assistance** – This Component provides TA with outputs of a regional market analysis, a guide for technology and / or practices that can be supported in each country, a feasibility study for an innovation vouchers scheme and targeted pre-investment and investment cycle support for the reduction and prevention of water and POPs pollution – resulting in the development of a pipeline of investments.
- **Component 2: Investments** – This Component will provide project financing of specific BATs/BEPs with clear environmental benefits related to the objectives of the IW and C&W focal areas. It will involve blending EBRD finance with GEF grant resources. It is expected that USD 90 million of investments will be mobilised for wastewater and POPs pollution reduction and prevention across at least 8 investment projects.
- **Component 3: Communication and Knowledge Management** – This Component will strengthen capacity across the stakeholder communities in the target countries to transfer advanced pollution reduction technologies. Specific outputs will include case studies of investments implemented within the Child Project, contribution to annual workshops organised by the MedProgramme (stocktaking meetings) and to the activities with the GEF's International Waters Learning Exchange and Resource Network (IW:LEARN), dedicated communication material to include information on POPs and water pollution abatement technologies, and success stories. In addition, within this Component, Monitoring and Evaluation requirements will be implemented.
- **Component 4: Policy Dialogue** – This Component consists of policy dialogue that is foreseen to deliver industry-led depollution roadmaps and Green City Action Plans.

[1] [1] In the case of Turkey, only the Chemicals and Waste window will be applicable.

1. OVERVIEW: PROJECT AND CONTEXT

1.1 Overview of the EnviTeCC Project and its relation to the Mediterranean Sea Programme

1.1.1 EnviTeCC

1. The EnviTeCC EBRD-led project (henceforth the "EnviTeCC Project" or EBRD "Child Project") is a child project under the broader programme led by UN Environment called "Mediterranean Sea Programme: Enhancing Environmental Security" (MedProgramme). The Program Framework Document (PFD) for the MedProgramme, which includes this EBRD-led project, had its concept approved on 3 October 2016. The objective of the MedProgramme is to: *accelerate the implementation of priority actions to reduce the major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas while strengthening climate resilience and water security, and improving the health and livelihoods of coastal populations*.

2. The EnviTeCC Project is one of the seven Child Projects in the MedProgramme and is specifically designated to be carried out by the EBRD. The detailed activities are presented as part of this Project Document and the accompanying Request for Project Endorsement (RCE) for the GEF.

3. In the EBRD's Countries of Operation (CoO) bordering the Mediterranean Sea there is a significant need to implement Best Available Techniques/ Best Environmental Practices (BATs/BEPs) for wastewater treatment and recycling and Persistent Organic Pollutant (POPs) prevention and reduction. The uptake of technologies and awareness levels regarding appropriate technologies and practices is limited. Improvement of regulatory frameworks as well as increased capacity and investment in technologies are all necessary to improve environmental outcomes by reducing pollution which goes directly or indirectly into the sea.

4. The Child Project builds on EBRD's track record of success in market creation and transformation, and working with the private sector. The Child Project will work with private, municipal, and infrastructure sectors by providing financing, investment grants and technical assistance to accelerate an uptake of advanced technologies to address land-based pollution, supporting improvement of systems POPs prevention and reduction, and for water and wastewater management, treatment and recycling.

5. The Child Project is designed to facilitate investments in mitigating pollution mainly from point but also from non-point sources. Investments will be made in BATs/BEPs through a combination of grants from the GEF and co-financing from the EBRD. The Child Project is designed to also target policy development and stakeholder engagement to create an enabling environment for the implementation of pollution-reducing technologies in the targeted countries. Furthermore, the Project will carry out needs assessments, project identification, and ongoing technical assistance during investment implementation for EBRD clients (Please refer to Section 2 for more details).

6. The Child Project is requesting a total of USD 8.75 million from the GEF Trust Fund for addressing the objectives of the International Waters (IW) and Chemicals and Waste (C&W) Focal Areas. Total co-financing from the EBRD is expected to be USD 90 million.

7. Eligibility criteria for investments are described in Section 2.1.

8. It is expected that EBRD and grant funding from the GEF will co-finance at least 8 private/ public projects related to wastewater treatment, water recycling, chemicals and waste. The proposed Child Project will help targeted countries in overcoming existing market barriers to POPs and water pollution reducing technologies and practices.

9. The Child Project is in compliance with EBRD's GET (Green Economy Transition) approach by supporting investments that promote the sustainable use of resources and protection of natural assets

by emphasising innovation and the introduction of new technologies, equipment and practices into the target markets. As noted in the EBRD document on the GET approach, incremental GET investments are driven by the following factors:

- a ramp up of existing activities through the recognition of scale effects on systemic impact;
- enhanced innovation;
- a broadening of the environmental dimensions; and
- an active use of private and public channels of transition impact within the Bank's mandate constraints.

This Child Project is directly aligned with all of the above factors – including achieving scale of investment related to addressing water pollution, encouraging innovation and the use of new technologies in the CoOs targeted, addressing environmental issues related to coastal water pollution in across sectors, and the active engagement with the private and public sector in addressing various sources of pollution.

10. Also in line with the GET approach, the Child Project will conduct policy dialogue activities related to water pollution and assist in addressing water scarcity in CoOs of which some are pointed out as being "some of the most water stressed countries in the world".

11. The Child Project consists of four Components: 1. Technical assistance, 2. Investments, 3. Communication and knowledge management, 4. Policy dialogue.

12. Countries to be covered by the Child Project are Albania, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco, Tunisia and Turkey[2]. Turkey has been added to the Programme eligible countries for the Chemicals & Waste focal area only, following the letter of endorsement received on 27/03/2019. The letter was received only during PPG phase and as such, Turkey has been included only at the final submission stage.

13. The proposed capital grant allocation for each individual investment, together with a description of the scope of work and anticipated benefits, will be submitted for EBRD's internal approval as part of the underlying EBRD transaction.

14. The Child Project will be operational until full commitment of the funds envisaged for a five-year period.

1.1.2 Mediterranean Sea Programme (MedProgramme)

15. As mentioned, this Child Project has been developed based on the PFD for the MedProgramme[3]. The PFD concluded that the stage of initial assessments, diagnostics, priority setting, planning, and experimentation have been completed with regards to water quality and chemicals disposal. This work was carried out during the previous phase by the MedPartnership UNEP/MAP GEF project and ClimVar & ICZM projects (2010-2015); (ii) the Ecosystem Approach project (2012-2015) funded by the European Commission; and (iii) the work of UNEP/MAP in the implementation of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and its Protocols.[4]

16. The next phase – under the MedProgramme – addresses the need for a higher level of effort at the national and regional levels in scaling up the pilot efforts carried out in the previous phase. In particular, this means increasing the level of technology transfer and improving the technical, institutional, and knowledge capacity of implementing bodies and companies. This renewed and

[2] In the case of Turkey, only the Chemicals and Waste window will be applicable.

[3] GEF ID 9607 - see https://www.thegef.org/project/mediterranean-sea-programme-medprogramme-enhancing-environmental-security

[4] Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean

expanded effort is not only justified by the continuing degradation of the Mediterranean coastal zone and shallow marine environments, but also urgent in view of the looming climate related threats, and of the loss of livelihoods and deterioration of social conditions along critical sections of the Southern and Eastern Mediterranean shores.

17. The MedProgramme involves further GEF support through a Programmatic Approach to assist GEF beneficiary countries of the Mediterranean Basin to step up their efforts and commitments, including financial commitments. The Programmatic Approach funding modality aims to leverage broader partnerships with various GEF Agencies. Actions reflect regionally and nationally agreed upon priorities and strategies, and address identified Mediterranean hotspots.

18. The entire MedProgramme will utilize USD 42,376,147 from the GEF Trust Fund (program financing) with the Focal Areas being IW, C&W (including POPs), and Biodiversity. In addition to the EBRD, other GEF Agencies and international donors involved in the Programme are UN Environment (which is coordinating the Programme and implementing most child projects), EIB, UNESCO IHP, GWP Med, WWF MedPO, UNIDO and IUCN. A total of USD 708 million is to be leveraged in co-finance by the GEF agencies, recipient governments, bilateral agencies, multilateral agencies, and Civil Society Organisations (CSOs).

19. The MedProgramme has been developed through four Components and seven Child Projects. Three Child Projects (including the EnviTeCC) are part of Component 1 (Reduction of Land Based Pollution in Priority Coastal Hotspots, and measuring progress to impacts), two are a part of Component 2 (Enhancing Sustainability and Climate Resilience in the Coastal Zone), one is a part of Component 3 (Protecting Marine Biodiversity), and one is a part of Component 4 (Knowledge Management and Programme Coordination).

20. This Project is directly linked with the Child Projects in Component 1 and Component 4 as follows:

- **Child Project 1.1: Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts**, implemented by UNEP MAP and UNIDO, targeting the removal of existing stockpiles of POPs, prevention of use of POPs in industrial processes, as well as mercury pollution.
- **Child Project 1.2: Mediterranean Pollution Hot Spots Investment Project,** implemented by the EIB, targeting the increase in wastewater treatment capacity in Egypt, Lebanon, Morocco, and Tunisia. The EBRD-led Child Project will coordinate with Child Project 1.2 to ensure there is no overlap in the use of GEF resources and that the activities are complementary.
- **Child Project 4.1: Mediterranean Sea Basin Environment and Climate Regional Support Project,** implemented by UNEP MAP. It involves support for knowledge management and Programme Coordination. The EBRD-led Child Project will participate in knowledge management and coordination activities – including budget support for IW:LEARN (please refer to Section 2.3 for more details).

1.2 Baseline

21. The Mediterranean Sea - the largest semi-enclosed sea in the world - is shared by 21 countries with a coastline of 46,000 km. Its coastal areas are undergoing a dramatic process of development. The total population of the Mediterranean countries grew from 276 million in 1970 to 466 million in 2010 and is predicted to reach 529 million by 2025 and 600 million in 2050. More than a third of the population lives in coastal administrative entities totalling less than 12% of the surface area of the Mediterranean countries. Population load is shifting towards the southern and eastern Mediterranean and about 60% of that lives within 100 km of the coast. In addition, the Mediterranean region hosts one third of world tourism. Population density in coastal areas ranges from double to ten times the national average due to the more favourable climatic and socioeconomic conditions. One third of the entire Mediterranean population lives in countries targeted by the Child Project. The continuing degradation of the Mediterranean coastal zone and shallow marine environments, coupled with the increasing

impacts of climate variability, the loss of livelihoods and dramatic deterioration of social conditions along critical sections of the Southern and Eastern Mediterranean shores, prompted the development of the MedProgramme.

22. As a result of the increased demand for space, water and natural resources, the stress on coastal ecosystems and the infringement on natural and agricultural land are continuously increasing. The region is characterized by a unique and rich yet fragile biodiversity, hosted by many diverse ecosystems which together form an invaluable natural capital on which populations and economies depend. It is estimated that between 10,000 and 12,000 marine species thrive in the Mediterranean Sea, and that around 20–30% of these species are endemic. A range of human activities threatens many of these species. Pollution from land-based sources, such as discharges of excess nutrients and hazardous substances, marine litter, and degradation of critical habitats, are among the key factors responsible for this biodiversity loss.

23. **Water pollution** in the region remains a significant challenge. Densely populated coastal regions, coupled with tourism activities, generate high pressure on water resources, in particular on coastal aquifers as the major water resource, as well as on ecosystems, habitats, biodiversity and landscapes. The dense populations and associated economic activities result in nutrient emissions in wastewater, solid waste, marine litter and microplastics, as well as industrial waste discharge into the environment. An estimated 80% of the pollution load originates from land-based sources, mainly in the form of untreated discharges of urban or industrial wastewater, which contains microbiological, nutrient and chemical contaminants, reaching the sea from coastal sources or rivers. Discharges of hazardous substances from industrial waste and wastewater are among the key factors responsible for the biodiversity loss and the contamination of the Mediterranean.

24. The discharge of untreated municipal wastewater in coastal areas or rivers flowing into the Mediterranean Sea remains a major environmental issue in most southern and eastern Mediterranean countries and therefore constitutes one of the key environmental challenges. Municipal wastewater carries high loads of nutrients (nitrogen and phosphorus), pathogens and microorganisms (including coliforms, faecal streptococci, and salmonellae) posing direct or indirect risks to human health and well-being.

25. Lack of sewage collection, treatment and disposal infrastructure is still the greatest problem in many Mediterranean countries. Today, only 60% of the coastal cities are served by treatment plants, which means that a load of about 3 billion m^3 of untreated water enters the sea every year. A number of inventories of municipal wastewater treatment facilities in Mediterranean countries have been published (MAP Technical Report Series No 157, 2004; UNEP/MAP, 2011; UNEP (DEPI)/MED WG.357/Inf.7). These studies provide information on the population served by WWTPs, the degree of the treatment provided, quantities of wastewater produced and disposal alternatives. The most recent inventory (UNEP/MAP/MED POL, 2011) also considers a number of cities with a population larger than 2,000 inhabitants that discharge their municipal wastewater (treated or untreated) into major rivers. Wastewater produced from the cities located in the catchment area of a river draining into the Mediterranean Sea will eventually end up in the sea, thus indirectly contributing to the pollution of the marine environment.

26. Related to wastewater treatment, water scarcity is an important issue in most of the region. Over the last few decades, the eastern and southern Mediterranean countries have responded to water scarcity by investing heavily in infrastructure, including in projects on wastewater treatment, which is now recognized as a very important resource. However, the extent of reuse of both treated and untreated wastewater is limited to 1% in the beneficiary partner countries.

27. Industrial pollutants impact the Mediterranean basin through air emissions, solid wastes and wastewater. It has been estimated that 66 million m^3 of untreated industrial wastewater enter directly into the sea every year. Rivers are also very important conveyors of wastewater with about 13% of the total load of industrial wastewater being discharged into them.[5] In cities with intense industrial activity,

[5] Source: MEDASSET, http://www.medasset.org/marine-litter-pollution/

the wastewater discharged directly into public sewerage systems generally contains a variety of chemical wastes: total dissolved solids, ions (such as sodium, calcium and magnesium), organic compounds (such as phenols, pesticides and chlorinated hydrocarbons) and metals (such as cadmium, zinc, nickel, and mercury). These substances are of particular concern due to their toxicity, bio-accumulation and their resistance to conventional wastewater treatment methods.

28. **Persistent organic pollutants (POPs):** Threats posed by the exposure to POPs are a growing area of concern. Sources of POPs in the Mediterranean Sea region and their releases vary highly, from stockpiles of obsolete pesticides, which contain POPs, to contaminated equipment and land, or POPs used in other forms of industrial processes. Reducing the prevalence of harmful chemicals and waste by supporting the implementation of clean alternative technologies mitigating the major environmental stresses affecting the Mediterranean Sea and its coastal areas, is becoming more and more important for sustainable growth in the EBRD CoOs in the region.

29. The environmental problems associated with chemicals to be addressed by the C&W aspect of this project, namely PCB and new industrial POPs, are significant. Scientific research continues to show the impact of PCB on marine wildlife. In 2018 a study showed PCB-mediated effects on reproduction and immune function threaten the long-term viability of >50% of the world's killer whale populations[6] and concluded that a population in the Straits of Gibraltar faced the highest risk of collapse in the next 100 years. Large stocks of PCBs in the region that have been historically poorly managed are a major source of pollution in hotspots identified in the updated Barcelona Convention NAPs[7] and are national priority contamination issues.

30. While there is limited evidence of the impacts of new POPs specifically on the Mediterranean Sea, the confirmed use of three of the new POPs in the countries is a contributor to known global impacts of these new POPs, namely PFOS, HBCD, and SCCP.

- **PFOS:** The use of firefighting foam containing perfluorooctanesulfonic acid (PFOS) and other per- and polyfluorinated alkylated substances (PFAS) has resulted in the contamination of ground water, drinking water and surface water in many countries including the Southern Mediterranean Sea, which are considered to be particularly vulnerable to water stresses and shortages under current climate change scenarios. Climate stresses are also predicted to increase the frequency and weather-driven danger of fires in the Mediterranean region[1], resulting in increased need and extent of application of firefighting foams. PFOS is added in firefighting foam concentrates at levels between 1 to 10%, and then further diluted in water to produce the foam, such that 1 ton of PFOS will generate between 16 to 33 tons of POPs waste foam with concentrations of PFOS above the low POPs limit of 50ppm. In addition to disposing of waste foams, the Stockholm Convention guidance also recommends that the wastewater from fire-fighting be gathered and managed in an environmentally sound manner[1]. Failure to treat firefighting water has led to contamination of drinking water sources in Germany and the US. USEPA found that the drinking water of at least 6 million citizens has PFOS/PFOA levels above the health advisory level[1]; while in Germany, remediation of PFOS contamination at Dusseldorf Airport, including drinking water sources and a nearby lake, is estimated to cost EUR 100m to remediate.[1]
- **HBCD**: Hexabromocyclododecane (HBCD) is a category of brominated flame-retardants, used in the Mediterranean in expanded polystyrene foam (EPS) and extruded polystyrene foam (XPS) in building insulation, and leading to exposure from products and dust at home and the workplace. HBCD is used at concentrations between 0.5 to 2.5%[1], such that 1 ton of HBCD results in the contamination of 100 to 200 tons of EPS/XPS.
- **SCCP**: Listed under Annex A of the Stockholm Convention in May 2017, SCCP production and use must be eliminated by 2024. SCCPs are used as fat-liquoring in leather; plasticizers in

[6] Desforges et al. (2018) Predicting global killer whale population collapse from PCB pollution, Science 361, 1373–1376

[7] National Action Plan (NAPs) prepared under the Barcelona Convention Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol).

sealants, flexible polyvinyl chloride, additives in rubber, waterproofing and fire-retardant paints; industrial oil in metal processing and lubricant.

31. The root cause of continued use of new POPs in products in Mediterranean countries is the continued import either as POPs containing products, or as ingredients to formulate POPs containing products, which is mainly linked to a lack of awareness and knowledge about POPs and a lack of technological solutions or credible alternative. Many users of new POPs are simply not aware that their products contain these chemicals, and are not aware of the need to replace them (for both health/ environmental reasons, but also in order to comply with relevant regulations).

32. PCB disposal projects have been done in the region, demonstrating commitment of governments to meeting their obligations for continuous environmentally sound management and phase out of PCB wastes under the Stockholm Convention. In terms of new industrial POPs prevention projects, there are very few baseline initiatives where some countries have conducted very initial inventories as part of their Stockholm Convention NIP update projects. Detailed inventories for all the equipment suspected of PCBs contamination are being progressively developed (in the course of NIP updates or as a part of specific projects) but are not yet available in all the project countries.

33. The Mediterranean countries have also worked with GEF IW and C&W support since the late 1990's to set priorities related to national, as well as transboundary environmental concerns and have jointly agreed on the interventions needed to address these priorities in two Strategic Action Programmes (SAPs):

- The Strategic Action Programme to Address Pollution from Land-Based Activities (SAP-MED); and
- The Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP-BIO).

34. Following the formal adoption by the Barcelona Convention of the two Strategic Action Programs SAP-MED (2005) and SAP-BIO (2003), the Mediterranean countries translated the SAP priorities into National Action Plans (NAPs), and benefited from international support in moving towards on the ground implementation:

- The MedPartnership project (2010-2015) supported countries in the initial implementation of the SAPs and of the newly developed Integrated Coastal Zone Management (ICZM Protocol), which was adopted in 2011.
- The Horizon 2020 project for the depollution of the Mediterranean initiative (2009 and ongoing), funded by the European Commission was developed to address SAP-Med (on Land Based Pollution) updated NAP priorities, including development of investments, capacity building and enhancement of monitoring capacity.
- In the area of Chemicals and Waste, significant regional work has been done by MEDPOL in providing support to countries across the region through the Med Partnership. The first phase project included a component on ESM of equipment, stocks and wastes containing or contaminated by PCBs in national electricity companies of the Mediterranean countries, including training on ESM of PCBs equipment for more than 300 individuals from four countries (Albania, Bosnia and Herzegovina, Egypt and Turkey). Training was provided to the national PCB teams on collection, packaging, and shipment of PCBs, and increased technical expertise and awareness on the environmentally sound management of PCBs.

35. The extensive work carried out as part of MedPartnership has allowed the drawing of a number of general conclusions valid for all countries involved:

- coastal aquifers are a major water resource along the Mediterranean coastline, and often represent the main source of drinking water for the growing coastal populations;
- submarine groundwater discharges are large, and in places superior to surface water inflows, hence coastal aquifers contribute to, and sustain shallow marine ecosystems;

- major coastal wetlands, lagoons, humid zones and coastal habitats, providing very valuable services and contributing to coastal livelihoods and biodiversity, are all in part or totally dependent on groundwater regimes.

36. The evaluation of NAPs implementation showed that over 80% of the national policy and legal frameworks for marine and coastal pollution assessment and control are in place in most Mediterranean countries; and that there is a marked improvement in pollution-related reporting capabilities of the Contracting Parties leading to more data. However, the level of quality assurance for this data remains a challenge.

37. In addition, support to institutional structures for enforcement of permitting and compliance are lacking in about one third of the Mediterranean countries. This is manifested in the lack of systematic implementation of monitoring activities, inability to enforce permitting requirements, and lack of transparent reporting measures taken and access by the general public. The regional analysis of pollutants loads discharged to the Mediterranean indicates decreasing trends in a number of pollutants in particular for heavy metals and Polycyclic aromatic hydrocarbons (PAH). However, it shows also that pollution pressures over the marine and coastal environments are still high and require a more effective implementation of existing and additional measures.

1.3 Problems and barriers

38. As part of project preparation, a common problem tree was developed by the two Chemicals and Waste focal area projects (Child Project 1.1 implemented by UN Environment, and Child Project 1.3 implemented by the EBRD), to analyze the root causes and barriers to addressing the central problem of current practices leading to the release of POPs and also mercury (for Child Project 1.1) into the Mediterranean environment. The problem tree as outlined in Figure 1 below sets out the generic root causes and barriers in addressing POPs challenges.

39. It is worth noting that the Child Project recognises that there is a wide diversity in the capacities and development status of targeted countries, in their institutional and management frameworks, and most of all, in the varying backgrounds, levels of interest and commitment.

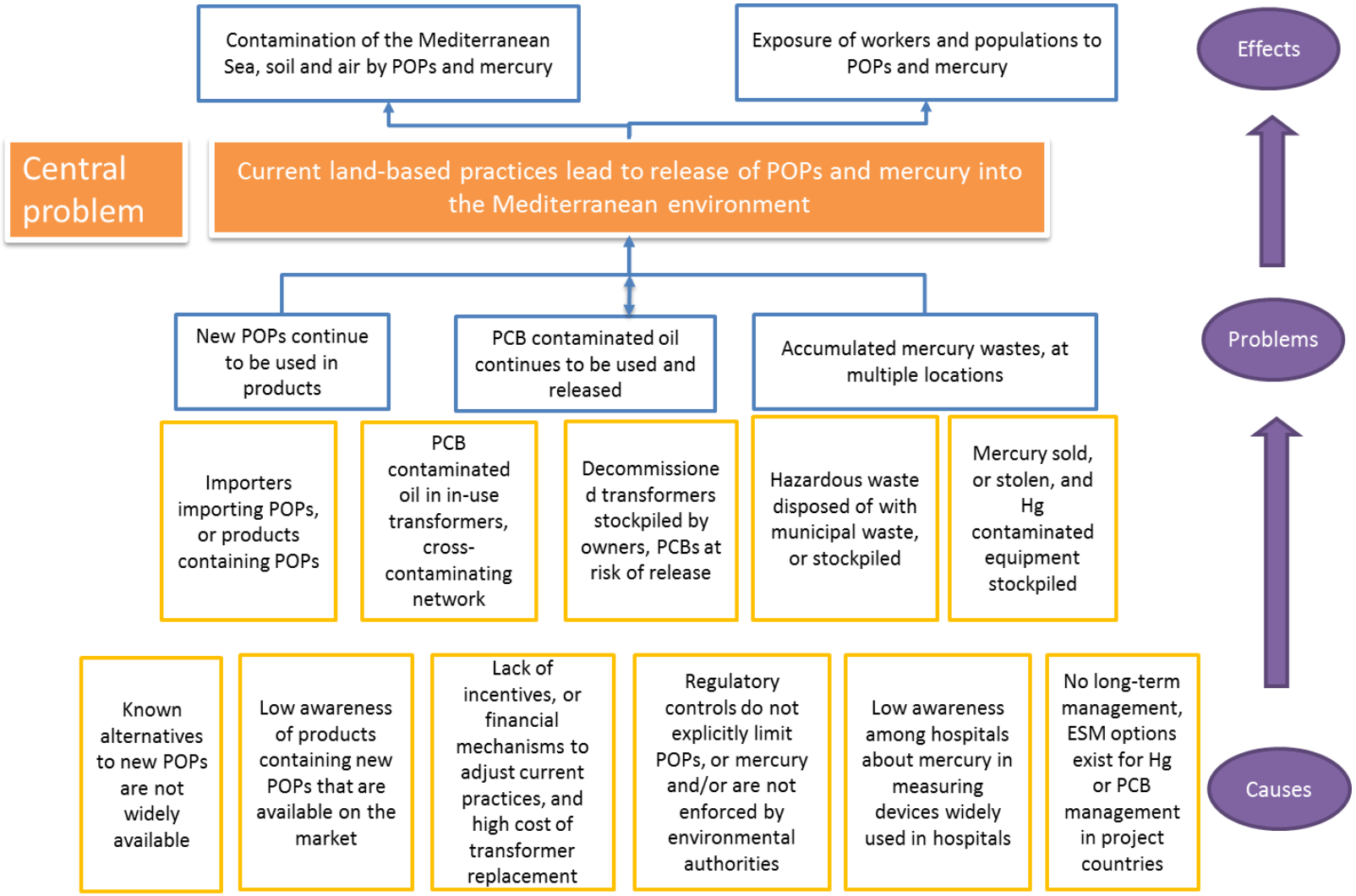

Figure 1: Problem tree illustrating generic root causes and barriers in addressing POPs challenges

40. Table 1 summarizes barriers that are relevant for the EBRD's Child Project. This barrier analysis is based on the findings of EBRD feasibility studies[8] and additional desk-based research concerning each participating country, which included UNEP Mediterranean Action Plan assessment reports, annual reports, and strategic action programme documents.

Table 1: High-level summary of barrier categories identified

Category	Barrier Description
Capacity	There is a general lack of capacity related to (a) project development and (b) technical implementation among local businesses (publicly and privately owned). On the municipal side, this results in a slow pace of project and investment planning for infrastructure investments in WWTPs. Privately owned and municipally owned businesses therefore continue with business as usual practices causing significant nutrient (and chemical) pollution, soil erosion, and pesticide pollution from industries into water sources. The investment needs are significant while the project planning and implementation capacities of appropriate and advanced technologies are insufficient. Many businesses are not familiar with the term POPs and with the complex nature of this group of compounds. There is also a lack of granular data about where POPs may be present in existing equipment.
Financial	There is limited financial capacity of the public sector for investing in water and wastewater infrastructure, such as sewage collection systems and WWTPs. Wastewater treatment and recycling technology projects are usually capital-intensive investments with high upfront project development and capital expenditure costs, which is a barrier for both privately owned and publicly owned companies. Moreover, sources of local finance for such large investments are scarce and local banks often do not focus on financing advanced technology solutions. There is also a lack of sufficient financial resources to eliminate, control or reduce the emissions of POPs and financial mechanisms in place are lacking to incentivize changes in current practices. In particular, key barriers to the sound environmental management of PCB contaminated equipment include: the high capital cost and lack of incentives or financial mechanisms to replace in-use transformers; and the high cost and lack of local infrastructure for environmentally sound disposal of the wastes. Detailed inventories for all the equipment suspected of PCBs contamination are being progressively developed (in the course of NIP updates or as a part of specific projects) but are not yet available in all the project countries.
Awareness	There is limited awareness amongst the companies involved in wastewater treatment – in particular in-house technical expertise and awareness amongst management about water technology improvements, their costs, and their benefits. This leads to new investments not being fully considered and an underestimation of the viability of investments. Typically, investment in wastewater treatment and water recycling technologies with low market penetration is perceived as inherently risky and as having incommensurate financial returns due to the low price of water. There is also limited information available about successful examples in wastewater treatment and recycling technologies especially in the corporate sector. Many users of new POPs are simply not aware that their products contain these chemicals, and are not aware of the need to replace them (for both health/ environmental reasons, but also to comply with relevant regulations). In the case of PFOS/PFOA, foam manufacturers may claim their foams are fluorine-free or only containing traces, but this remains to be confirmed. Users of fluorinated foams may not be aware of the reliability and effectiveness of alternatives, although international experience from developed countries is that they are as effective.
Policy/ standards / legislation	Existing policy frameworks – and notably action plans - do not sufficiently articulate priority investments to address key environmental issues for municipal sectors. Thus there is an insufficient policy signal to stimulate investment in particular projects. Furthermore, there is insufficient policy guidance for industrial sectors on how to improve wastewater management practices.

[8] OGS-EBRD Feasibility study on environmental pressures in the South Adriatic Sea and coastal areas and their implications for regional economic development. Phase II – Case studies (April 2018) carried out by University of Trieste Unit.

Category	Barrier Description
	Lack of legislation to restrict the use of new POPs in countries, which could potentially range for inclusion in lists of restricted substances which could affect import; strict water quality standards limiting levels of PFOS-PFAS in water sources; or Extended Producer Responsibility (EPR) for building products and related waste, requiring companies that produce building products to take back HBCD-contaminated products. International firefighting foam performance standards were written in the early 1960's, based on performance of fluorine surfactant technology. Since then, only the International Civil Aviation Organization (ICAO) Level B standard for aviation has been updated, which has facilitated all major airports in Australia and the UK using this standard to now operate with fluorine free foams. Where governments have not adopted such updated standards, fluorine free foams may be unable to meet requirements where they are unfairly challenged.
Technical / technology	Alternatives to POPs that may exist may not be available on the market in the Mediterranean project countries, creating barriers for users to access them at a competitive price. For example, for SCCP the price of one alternative 'DINCH' is approximately 2-3 times higher in the region, but prices in the region may be inflated as prices are similar from international sources.

2. PROJECT DESIGN

2.1 Project objectives

41. **Child Project objective:** to accelerate the adoption of technologies for reducing land-based and water-based pollution, water management and treatment, and improve chemicals and waste management across the Mediterranean region.

42. The Child Project aims to demonstrate activities across sectors to reduce and prevent pollution of the Mediterranean Sea linked to limited wastewater treatment capacity and POPs contamination. The Child Project will address multiple barriers to depollution activities by providing:

- technical assistance and capacity building;
- the finance needed for scalable and replicable pollution reduction solutions in infrastructure and industries;
- essential knowledge dissemination of best practices;
- policy and strategy support to governments, industry associations and municipalities to complement and improve the bankability of planned investments.

43. **Baseline**[9]**:** the EBRD's involvement in addressing issues in wastewater treatment and POPs avoidance and reduction within the targeted areas is crucial. As presented in the baseline overview, there is a significant need to reduce the amount of untreated wastewater discharged into water sources that are either directly discharged or eventually end up in the Mediterranean Sea, and providing resources for technical assistance and incentive grants to trigger the phasing out of POPs containing materials. The EBRD has extensive experience and a long track record in investments undertaken across its CoOs, including the Western Balkans region, Turkey as well as Northern Africa.

44. **Incrementality and additionality:** the Child Project will accelerate and enhance transformational effects already underway in municipal and corporate investments, by mobilizing capital and introducing BATs/BEPs for wastewater treatment and recycling in industries and public WWTPs in the region, and POPs remediation and prevention. Without GEF funds it would be unlikely that the approach to environmental technologies that this Child Project proposes would be delivered – involving stakeholder participation, policy development, and incentive grants for the introduction of BATs/BEPs. Instead, the business as usual (BAU) case would involve investments of a smaller scale on a case-by-case basis and not based on a programmatic approach. Furthermore, in the absence of GEF involvement, there would be no planned accompanying policy development and stakeholder participation which facilitate the market transformation in the countries involved in the Child Project.

45. **Global Environmental Benefits:** the global environmental benefits expected to be achieved by this Child Project include the following:

- At least three private/public wastewater systems discharging directly or indirectly into coastal hotspots upgraded;
- At least 1.5 million m^3 of water recycled per year in private/public systems;
- At least 3.5 million m^3 of additional wastewater treated per year in private/public systems;
- Reduction and prevention of 1,250 tons of POPs.

46. **Eligibility criteria for investments benefitting from the Child Project**: which include the following:

[9] The baseline of the Project refers to what the situation in the region would be in the absence of the Project's implementation.

- **Eligible sectors** are private and municipal projects, including public wastewater treatment facilities, large infrastructures, power generation and distribution, and the corporate sector;
- **Eligible investments** are investments of any size in one of the eligible sectors. The level of capital investment grant allocated for each investment project will be assessed on a case-by-case basis according to predefined criteria, including the type of technology considered, its market penetration in the specific country and sector, and its environmental impact;
- **Eligible countries** are Albania, BiH, Montenegro, Egypt, Morocco, Tunisia, Lebanon and Turkey[10];
- **Eligible recipients** of the Child Project are clients of the EBRD (there must be an underlying investment project signed by the EBRD);
- **Eligible technologies** will be selected based on their market penetration and environmental benefit. In particular, technologies listed as Best Available Techniques[11] in relevant databases will be eligible for grant funding. The eligibility of the particular investment will be assessed based on the nature of the technology and its market penetration in its own segment. In addition, the installation of the supported technology will need to result in water pollution reduction, water savings, POPs reduction/avoidance, or other environmental benefits resulting in a decreasing load of pollution into the Mediterranean Sea;
- **Eligible costs** will be those related to design, supply, installation, engineering, commissioning and ongoing management of eligible technology equipment.

2.2 Project approach

47. The Child Project is designed to achieve the key objective of enabling pollution reduction in priority coastal and catchment areas through addressing POPs reduction and prevention, the improvement of wastewater management systems and the introduction of modern and efficient technologies and practices. This approach will support the countries in achieving the aims of the Stockholm Convention, the Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution (and its amendments) as well as the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and its amendments.

48. The Child Project will target investments primarily addressing point sources and where feasible, non-point sources of water and POPs pollution. The investments will cover technologies in the area of water and wastewater treatment, wastewater management which have an impact on the Mediterranean Sea. In addition, the Child Project will support the upgrade of PCB-based electrical equipment, promotion of chlorine free operations, fuel quality control in waste oil refineries or cement industry, solvent recovery systems, or promoting land remediation and elimination and safe disposal of POPs containing waste.

49. It is envisaged that these activities will lead to the environmentally sounds management and disposal of PCB containing waste; and decreases in use of new POPs via a transition to environmentally sound alternatives in the region.

50. The lack of quantitative inventories on new POPs prevents the project team in setting quantitative targets for new POPs reduction at project design. Furthermore, there is no guidance or accepted methodology from the convention and GEF on calculating the contribution of prevention of POPs toward global targets, especially considering the fact that the amounts of these contaminated products/ wastes are orders of magnitude more than established GEF global targets. Once inventories of new POPs are available, it may be possible to quantify and document additional contribution of prevention activities toward the GEB target.

[10] In the case of Turkey, only the Chemicals and Waste window will be applicable.
[11] BAT in this document does not refer only to BATs in BREFs but is should be interpreted in wider sense.

51. The Child Project will also aim to ensure continued cooperation with other Child Projects targeting especially the Chemicals and Waste focus area within the Programme, given the challenges that exist. The EBRD Child Project team will be in continuous contact to identify potential synergies with initiatives under Child Project 1.1. While the EBRD will focus on developing investment opportunities across all sectors to improve chemicals and waste management, UNEP, in charge of Child Project 1.1, will instead deliver primarily policy dialogue and technical assistance. Continuous cooperation between the agencies will be ensured through regular coordination meetings.

52. The Child Project will target the private sector, publicly-owned companies, and municipalities through the provision of financing, investment grants and technical assistance to accelerate an uptake of the BAT and BEPs to tackle water and POPs pollution.

53. The Child Project adopts a regional approach spanning a number of EBRD CoOs, with the aim of accelerating the deployment of pollution reduction technologies in the Mediterranean region. Based on the Bank's profile as a financial institution with a unique transition mandate, the guiding principles of the Child Project are the following:

- Focus on increasing private sector involvement in adopting pollution reducing technologies and practices in line with international BAT/BEP, including those addressing POPs reduction and prevention; and support the rehabilitation of WWTPs in the region, leading to increased amount of wastewater treated and recycled;
- Deliver targeted policy dialogue in specific areas where barriers to environmental technology transfer remain, involving diverse stakeholders including business, consultancies and public institutions, to support the development of the enabling environment and assistance in developing at least one Green City Action Plan and an industry-led depollution roadmap;
- Contribute to the MedProgramme's platform for regional and sectoral networking for the purpose of disseminating knowledge, showcasing of lessons learnt and of best practices of pollution reduction technology.

54. **Project fit with the MedProgramme**: the proposed Child Project fits into Component 1 of the MedProgramme as outlined in Figure 2 below and named Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts. As mentioned in Section 1.1.2, this Child Project is most directly linked with the Child Projects 1.1 and 1.2 in Component 1 and Component 4.

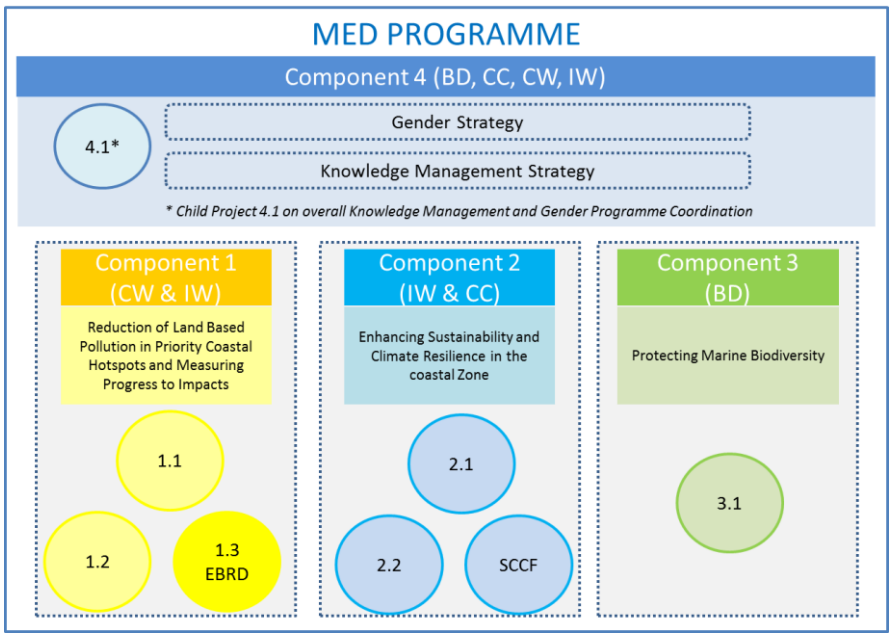

Figure 2: Structure of Child Projects under the MedProgramme. The GEF Focal areas covered under the Programme are Chemicals and Waste (CW), International Waters (IW), Climate Change (CC) and Biodiversity (BD)

55. **Project fit with the existing FIN-TeCC project**: the investments supported as part of the Child Project will follow the principles of transition, sound banking and additionality as applied consistently across all EBRD investments (as outlined in Section 3.1). The selection of the investments will be in line with the criteria defined in other EBRD-led GEF-funded projects, in particular the EBRD FIN-TeCC[12], and will take into account (a) the impact of the investment in tackling the issues on hand, (b) the innovativeness of the proposed technologies and practices in the targeted markets, (c) the demonstration effect and replication potential of the supported technologies and techniques, and (d) other benefits of the investments associated with other aspects such as the promotion of gender equality. The connection of EnviTeCC to FIN-TeCC is particularly relevant, as FIN-TeCC is a successful programme funded by GEF and EBRD combined resources to accelerated the adoption of advanced climate technologies in a selected group of EBRD countries (Early Transition Countries – ETC, SEMED, Ukraine and Kazakhstan). Its approach involves providing targeted technical assistance and investment grants to companies for implementing climate technologies, based on a set of eligibility criteria including the level of market penetration, the replicability potential and the level of innovation. FIN-TeCC also includes a policy dialogue component which is also reflected in this Child Project. By leveraging the FIN-TeCC operational model, it is envisioned that this Child Project could have a similar scale of impact in the space at a regional level and expand beyond its initial geographical scope.

56. The Child Project will leverage the EBRD's expertise in designing and implementing investment programmes, and will apply specific approaches deemed suitable to the participating countries, such as:

- Development of a regional investment programme, based on the model of FIN-TeCC, which aims at accelerating the adoption of environmental technologies;
- Implementation of investment projects across sectors such as municipal wastewater treatment, water-intensive industrial sectors (e.g. beverage and food-processing industries), agribusiness and municipal infrastructure systems in their upgrade in water management and wastewater treatment capacity and chemicals and waste reduction;
- Support of individual high impact investment projects, typically in the infrastructural, industrial or agribusiness sector focusing on wastewater treatment and recycling (as linked to water pollution) and chemicals and waste control.

2.3 Project components

57. The project structure is based on an integrated model that is expected to deliver on both focal areas of International Waters and Chemicals and Waste.

58. The Child Project is based on four Components, as illustrated in the figure below:

[12] http://fintecc.ebrd.com/index.html

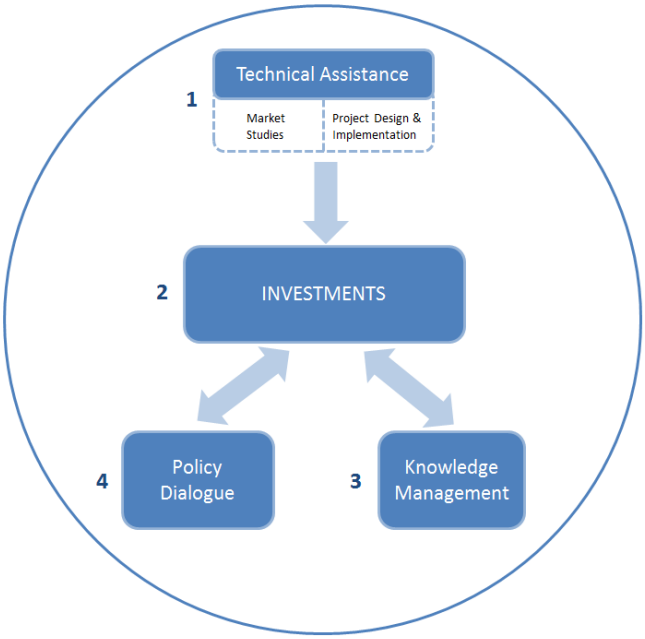

Figure 3: Structure of Child Project activities

Component 1: Technical Assistance

59. EBRD's experience is that targeted technical assistance is instrumental to deliver impacts and to drive investment. The EBRD has a consolidated experience in delivering technical assistance and has developed a wide range of tools that can support the achievement of the Project's objectives. Within FIN-TeCC, for example, the implementation of technical assistance for defining the scope of investments has produced successful investments to address climate change mitigation and adaptation in many EBRD CoOs. Technical assistance is necessary for origination of investment projects that will result in technologies being implemented which are beyond the "Business As Usual" or "good enough" case – but instead entail Best Available Techniques and Best Environmental Practices.

60. EBRD's experience in the municipal sector has shown the importance of combining technical assistance and capacity building with investments to ensure their effective preparation, implementation and cost-effectiveness. Within the Child Project such an approach will be applied for each investment with technical support for project preparation, implementation support and institutional strengthening, to address both public sector infrastructure projects as well as Public Private Partnerships (PPPs). This approach will complement existing initiatives to support and scale-up wastewater collection and treatment projects in the Mediterranean Sea region and particularly include support for the implementation and monitoring phase of the projects.

This Component will support Component 2 – the investment component – via targeted technical assistance. The technical assistance will be implemented through a set of activities to support the definition and subsequent implementation of investments to reduce water pollution. The emphasis of the assistance will be on bridging technical gaps between recommendations, project financing, implementation, and management of water resources and wastewater and environmental technologies and management practices for POPs reduction and avoidance.

61. The following activities will be supported under this Component across IW and C&W areas to address:

- **Market studies** will be carried out, where needed, to identify the main potential project sponsors, the specific point and non-point sources of POPs and water pollution which could be invested in, and the specific policy / regulatory gaps which should be addressed. These market studies will build on existing research done in the preparation of this Child Project document as well as knowledge of EBRD's staff particularly in the Municipal Environment

and Infrastructure (MEI) Department, Power and Energy (PEU), Transport, Agribusiness department and Manufacturing and Services (M&S) department. The output of this activity will be regional-level analysis about specific potential investments including, where already available, information on the size of specific investments and potential for water pollution and POPs reduction and prevention.

- **Environmental technology screening and selection** will be linked to the market studies; long lists of eligible technologies/practices will be created outlining which ones can be eligible for both grant support and other financing support within the Child Project. A regional approach will be used to identify appropriate wastewater treatment and recycling technologies and practices for the industrial sectors and public infrastructure, as well as POPs reduction and prevention technologies and practices – identifying what is currently available in the market and would represent best practice, but are not sufficiently developed and where additional technical and financial support would ensure the uptake of these practices and technologies. The minimum level of performance of technologies will be defined, potentially differentiated for the different clusters of countries – the higher the level of deployment of each technology in the country, the higher the performance expected to be eligible for support through the grant funding mechanisms.

  This approach is consistent with the Technology Catalogue tool[13], developed by the EBRD in 2018 and which includes a longlist of energy efficient technologies that qualify for investment support through the EBRD's Green Economy Financing Facilities (GEFFs). It is also consistent with the practice followed in FIN-TeCC related to the selection of eligible technologies.

- **Pipeline generation** will be based on the market studies and environmental technology screening, and selection will be the basis of a detailed pipeline of potential investments. This pipeline will be developed in cooperation with the relevant banking sector teams. EBRD may engage consultants to disseminate information to prospective clients, including the parameters of potential investments and the benefits to the potential implementing companies and municipalities.

- **Assess the feasibility of an innovation vouchers scheme** in the region to promote the implementation of innovative practices and technology that help prevent and reduce POPs and improve water pollution/recycling. The key objective of such scheme would be to support the private sector to manufacture and deploy state-of-the-art environmental technologies while helping the R&D capacity to develop and better connect to businesses. Innovation Vouchers are an established mechanism for supporting businesses to innovate and they help overcome the challenges that inhibit businesses from investing in innovation.

- **Targeted project technical assistance** will be provided to programme beneficiaries in the identification, development and implementation of viable climate technology investments, and corresponding technology providers and value chains, implementation of sustainable business models and green innovation. As and when relevant, GEF-supported investments will be accompanied by gender analysis as part of the socio-economic assessment during project design and will consider the differentiated gender roles with a specific aim to reduce gender gaps and promote gender co-benefits, including through enhancing women's access to productive resources and their adaptive capacity.

62. Specifically **to address the POPs reduction challenge in the targeted countrie**s, Child Project 1.1 and Child Project 1.3 will coordinate the design and delivery of technical assistance, which will allow the two projects to maximise synergies, share resources and achieve the highest possible Global Environmental Benefit. This cooperation will be implemented in consistency with the nature of the two GEF agencies: while the EBRD will focus on developing investment opportunities associated to the implementation of environmental BAT/BEP, UNEP will instead deliver policy dialogue and technical assistance.

[13] https://ts.ebrdgeff.com/gtc-en/

63. **Outputs:** Specific outputs of this Component are envisaged to include:

- Regional market analysis;
- A guide for technologies and practices which can be supported in each country;
- A feasibility study for an innovation voucher scheme;
- Targeted pre-investment and investment cycle support provided for reduction/avoidance of water pollution and/or POPs reduction and prevention;
- A Gender Action Plan.

Component 2: Investments

64. Through this Component, the Child Project will support investments for (i) the IW area into point and non-point source pollution reduction measures, by targeting investments that lead to improved wastewater collection, wastewater treatment and wastewater recycling across public infrastructure systems and municipal services, agribusinesses and industrial processes and (ii) in the C&W area for measures to improve chemicals and waste management, such as but not limited to the upgrade of PCB-based electrical equipment, promotion of chlorine free operations, fuel quality control in waste oil refineries or cement industry, solvent recovery systems, hazardous waste management infrastructure, the replacement of chemicals in industrial processes, or promoting land remediation and elimination and safe disposal of POPs containing waste.

65. For investments targeting the C&W, in particular, a joint delivery mechanism developed with UNEP as outlined above, which will ensure coordination on the technical assistance measures (Component 1) to identify and prepare potential investments in POPs reduction and prevention projects.

66. The ultimate objectives are: (i) streamlining public and private investment; (ii) strengthening institutional capacity of the public sector in WWTPs, and possibly related to hazardous waste treatment; and (iii) stimulating additional private investment in the corporate sector, which will allow to scale up investments in upgrading wastewater systems that are discharging directly or indirectly into coastal pollution hotspots.

67. Component 2 will therefore focus on investments supporting demonstration and transfer of effective, innovative and environmentally safe technologies and practices. Activities under Component 2 will be coordinated to the extent feasible with relevant regional organisations – in particular those in other Child Projects under the MedProgramme. It is expected that at least USD 90 million in investments will be mobilized for wastewater pollution reduction as well as for avoided and reduced POPs contamination, resulting in at least 8 investment projects implementing BAT and BEP.

68. As noted, one of the outputs of Component 1 will be a guide for environmental technologies and practices which can be supported within the Child Project. All investments supported by GEF funds will also be required to meet the eligibility criteria outlined in Section 2.1. The capital investment grant provided to eligible investment projects will be designed to compensate for the additional cost of implementing advanced or innovative technologies, as compared to standard ones.

69. The investments to be supported with GEF funds addressing wastewater and POPs pollution will target transboundary priorities as developed under the relevant Regional Strategic Action Plans, with a primary focus on advanced nutrient reduction technologies with no or very low market penetration in the targeted countries or sectors. Some specific types of interventions are described below.

70. **Private/ public water and wastewater systems upgrade.** The Child Project will build on the EBRD's Municipal and Environmental Infrastructure (MEI) investment track record and support investments to rehabilitate or upgrade existing wastewater treatment plants, expand wastewater collection networks and increase the capacity of wastewater treatment through new wastewater treatment plants.

71. Possible technologies for the treatment of wastewater involve any process and/or disposal system, which, after discharge, allows the receiving waters to meet the relevant quality objectives defined in the appropriate legislative framework. Eligible investments will also include those which reduce pollution and those which avoid potential pollution. Within the EU, this legislative framework is comprised of Directive 91/271/EEC (related to urban wastewater) and Directive 2010/75/EU (related to industrial wastewater) on industrial emissions and the relevant provisions of these directives. There are a variety of different types of technologies which could meet these criteria. These include as a broad range of categories:

- Process-integrated techniques;
- Recovery of pollutants at source;
- Wastewater pre-treatment;
- Final wastewater treatment.

72. **Water recycling, reuse and wastewater treatment in the corporate sector.** Additional investment opportunities, especially in the manufacturing and agribusiness sectors, will be identified and supported also with the help of the Bank's Environmental and Social Due Diligence (ESDD) process. The ESDD assesses whether EBRD investment projects can meet EBRD's Performance Requirements (PRs) as detailed in the Environmental and Social Policy of the Bank. Regarding pollution prevention and control, the performance requirement is that the projects need to be structured to meet relevant EU environmental standards. Where projects do not meet the PRs, the client is required to implement an Environmental and Social Action Plan (ESAP), which includes a series of measures that are needed to achieve compliance of the project with the PRs within a reasonable time frame. The ESAP may include actions related to the upgrade of wastewater systems and these actions could be supported by the Child Project. The clients are obliged to provide regular reports (usually on annual basis) to EBRD on the environmental and social performance of the projects, including implementation of the ESAP. The investments supported could cover both new investment projects and potential follow-up investments with existing clients.

73. **POPs reduction and avoidance technologies and environmental management practices**. It is envisaged these investments will lead to the environmentally sounds management and disposal of PCB containing waste; and decrease in use of new POPs via a transition to environmentally sound alternatives in the region. Ultimately project activities should lead to a tangible reduction of land-based pollutants in Mediterranean countries, through the disposal and avoidance of their release into the environment of over 1,250t of POPs in line with the Chemicals and Waste Focal Area objective CW2 to "reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances". The POPs investments are innovative, since the PPG research was unable to identify any examples of such pilots on phasing out new POPs in developing countries. As this is the first time that new POPs are being addressed, the Child Project is designed around a comprehensive delivery model, which includes technical assistance and policy dialogue, and investments as the main instrument for change.

74. The Child Project will build on the track record of the FIN-TeCC Programme and support the implementation of best available technologies for industrial water recycling, wastewater treatment and reuse. The technologies to be supported will be in line with best available techniques in relevant reputable databases and lists of technologies (to be customised for the programme in the context of the TA activities described above). Sample of eligible publications of technologies include the EU BREFs developed as a supplement to the Integrated Pollution Prevention and Control (IPPC) Directive.

75. **Outputs:** The specific output of this component are envisaged to include:

- At least 8 investments supported by GEF and EBRD resources.

Component 3: Communication and Knowledge Management (KM)

76. Component 3 consists of a range of communication and knowledge management activities to support the development of Child Project 1.3, in coordination with the wider KM strategy of the MedProgramme, illustrated in relevant sections of Child Project 4.1. Moreover, Component 3 and respective budget allocations will include activities for Monitoring and Evaluation as outlined in section 2.4.

77. The MedProgramme KM strategy is based on a structured and integrated approach to leverage and systematically share knowledge generated by all Child Projects with the intended beneficiaries and audiences and within the Child Projects themselves. The ultimate objective is to generate information and consciousness, encourage transboundary cooperation, scale up needed investments and raise general awareness about the benefits arising from good governance and management of natural resources inland and in coastal areas.

78. The implementation of a structured KM approach will also contribute to the objectives of the Barcelona Convention and foster a broader culture of learning, cooperation and environmental sustainability in the region.

79. The KM platform that will be set up in the context of the MedProgramme will be a knowledge hub on pollution reduction in the Mediterranean region and will aim at scaling up successful practices, disseminating knowledge and supporting the common objectives agreed by all parties of the Barcelona and Stockholm Convention. While the KM approach of the MedProgramme will cut across four different GEF focal areas (Biodiversity, Chemicals and Waste, International Waters, Climate Change), the Child Project 1.3 will contribute only with its results in the area of IW and C&W. In line with this approach, the EBRD will prepare and distribute a range of knowledge dissemination and communication outputs focusing on best practices and lessons learnt on pollution reduction that will be available (1) at the level of the Child Project, primarily through the existing FIN-TeCC website, that will be expanded to include environmental issues relevant for the Child Project (2) and through the MedProgramme Knowledge Management hub, in the form of case studies. Table 2 summarises the different KM and communication tools that are planned to be developed.

80. The connection to the existing FIN-TeCC Programme is particularly relevant, since FIN-TeCC website[14] is one of the most important IT platforms used by the Energy Efficiency and Climate Change team of the Bank. The expansion of the current website to include the results of this Child Project would be a very efficient solution to capitalise on the effort already put into the development of the existing website and immediately give high visibility to the new Child Project. The ultimate objective is to promote cross-fertilization of ideas, develop incremental innovation opportunities in the context of environmental technologies as well replicate successful cases that the EBRD has supported. These objectives will be achieved through dissemination of knowledge products, networking, cooperation and awareness raising events, community outreach at the country and regional level. Jointly with UNEP and Child Project 1.1, specifically the POPs pilot demonstration projects will provide case studies which will be actively disseminated to other countries through the MedProgramme Knowledge Management system (Child Project 4.1) in varied formats (possibly including publications, Experience Notes, video documentaries for example).

81. The existing FIN-TeCC website will serve as a primary web-based platform, source of knowledge and with contents for information sharing, which will enhance visibility of the MedProgramme itself and ultimately the EBRD. Where feasible, the relevant information will be provided for publication on the MedProgramme KM platform.

82. The project will further develop close linkages with UN Environment, and between the Barcelona and Stockholm Conventions and their delivery mechanisms at national and regional level will allow capacity on wastewater treatment and recycling, as well as improved chemicals and waste management to be linked across thematic and sectoral boundaries.

[14] http://fintecc.ebrd.com/index.html.

83. **Outputs:** The specific outputs of this component are envisaged to include:

- Case studies of investments implemented within the Child Project;
- Contribution to annual workshops organised by the MedProgramme (stocktaking meetings);
- Contribution to the IW:LEARN platform;
- Outreach events and workshops for stakeholders' engagement;
- Dedicated communication material: leaflets, infographics, videos, etc.;
- Website updated to include information on POPs and water pollution abatement technologies and success stories.

Table 2: Outline of the KM and communication tools to be utilized in the Child Project

TOOL	OUTPUT	CONTENT	AUDIENCE[15]	TIMELINE
CASE STUDIES	Development of a case study per each investment project supported to be published on the FIN-TeCC website and on the MedProgramme KM platform.	Showcase projects, supported through the child project including information on EBRD environmental investments and technology transfer model in EBRD CoOs. The case studies will showcase impact, best practices and investment of successful environmental technologies success stories.	- General public - Policy and decision makers - EBRD Clients and potential clients - Other Child Projects	On a regular basis, in parallel to the investments implementation.
EVENTS & WORKSHOPS	Outreach and stakeholders' engagement through planned events and workshops for networking, knowledge and information sharing. This will also include, when relevant, the annual stocktaking meetings organised in the context of the MedProgramme.	Knowledge dissemination of lessons learnt, to support synergies between industry associations in countries and across the region in coordination with other Child Projects and beyond the timeline of the programme; develop relationships with investment projects/clients and existing networks with the purpose to spread replicable information and examples from FIN-TeCC.	- Policy and decision makers - Industry association/ representatives - -EBRD donors	Programme of events and or workshop to be defined in details at the launch of the Child Project.
KNOWLEDGE PRODUCTS & COMMUNICATION MATERIAL	- Printed and digital material on specific environmental technologies, videos/ infographics; - FIN-TeCC website updates (insights, articles, news); - Other KM and communication products developed by the KM hub of the Child Project.	Key messages to be distributed through communication and media channels to inform, disseminate knowledge and attract interest from relevant stakeholders on environmental themes relevant to the Child Projects.	- General public level - EBRD Clients and potential clients - Industry association/ representatives - EBRD donors	Timeline for delivery to be defined during the Child Project implementation.
GEF IW:LEARN	In cooperation with the MedProgramme KM strategy, provision of inputs to the GEF IW: LEARN platform (1% of the total budget will be allocated for this).	To be defined based on the IW Learn platform requests.	- Policy and decision making level - EBRD Clients and potential clients - Industry association/ representatives	Timeline for delivery to be defined during the Child Project implementation.

[15] Based on the Knowledge management strategy in the framework of the Project Preparation Grant (PPG) of the MedProgramme (page 7).

Component 4: Policy Dialogue

84. Component 4 consists of policy dialogue activities that will accompany and support the investments under Component 2 of the Child Project. EBRD's approach to policy dialogue is to leverage an investment project to enact national or municipal policy reform or voluntary actions at the industry level.

85. Due to the close link between policy and investment activities, specific policy dialogue will be defined alongside structuring of the investments, within the context of specific national legal and policy frameworks, taking into account the feasibility to implement meaningful systemic change on the ground. The Child Project will ensure complementarity with the planned policy activities of the other Child Projects, especially with Child Project 1.1 and the policy dialogue activities implemented by UNEP.

86. Within the context of support for wastewater treatment and recycling technologies, closed loop systems in the industrial sector as well as POPs reduction/prevention practices and technologies as described above, the EBRD foresees the opportunity to deploy the following types of policy support:

- Development of industry-led depollution roadmaps, convening national and international industrial actors and associations in a dialogue with national authorities to construct viable policy and investment depollution pathways;
- Development of a Green City Action Plan[16] (GCAP) with a municipality that articulates priority actions to address key environmental issues, with close consideration on the POPs and water depollution measures to be implemented. The GCAP methodology was developed by the EBRD in conjunction with the OECD and ICLEI and provides a systematic approach to benchmarking, identifying and addressing cities' environmental challenges. The GCAP results in cities articulating high level, long-term visions for their development along with short-term, politically feasible action plans to pursue including both investments and policy measures to address cities' environmental and climate change challenges and targets. It is envisaged that Component 4 of this Child Project will benefit from the significant experience of the EBRD in preparing GCAPs.

87. **Outputs:** The specific outputs of this Component will be further defined once specific policy dialogue activities are designed during the course of structuring investments. Sufficient resources have been allocated to deliver:

- At least 1 sector-level depollution roadmap;
- At least 1 Green City Action Plan for a city in the region.

2.4 Monitoring and Evaluation

88. The Monitoring and Evaluation Plan for the Child Project meets the requirements of both the EBRD and the GEF, and facilitates reporting of progress and impacts to the GEF Secretariat and the EBRD. The EBRD uses a Results Based Management approach (see *Annex A*). Monitoring will be conducted at the mid-term via a Mid-term Review (MTR) and via an independent Terminal Evaluation (TE) held near the end of the Child Project's lifetime. These activities will be in addition to the regular annual reporting requirements of the GEF and the monitoring cycle of the EBRD. The outputs of this component include (i) MTR of the Child Project and (ii) TE of the Child Project.

Annual review

89. The Project Implementation Report (PIR) will be prepared to monitor progress made since Child Project start and in particular for the previous reporting period (1 July to 30 June of every year).

[16] https://www.ebrdgreencities.com/

The PIR will combine both MedProgramme and GEF reporting requirements. The PIR includes, but is not limited to, reporting on the following:

- Information on the Child Project status;
- Rating of Child Project performance including information on progress towards achievement of environmental objectives (impacts) and implementation progress (outputs delivered);
- Risk rating / assessment;
- GEF IW and C&W Tracking Tool indicators.

Mid-term review and terminal evaluation

90. The Child Project's mid-term review and terminal evaluation will be carried out by an independent party at the appropriate time and have two basic objectives: (i) to assess the results and impacts, both intended and otherwise, of the Child Project (accountability function), and (ii) to determine whether there are lessons to be learned from past experience to make future operations better, thereby contributing to 'institutional memory' (lessons learned or quality management orientation).

91. The mid-term review will be used to identify areas where improvements could be made and to improve the effectiveness of results and impacts. The review and evaluation will provide the basis for a system of accountability to managers and to the GEF.

92. In addition to complying with EBRD requirements, the Project will undergo a terminal evaluation in accordance with GEF guidelines.[17] Terminal evaluations are "expected to provide a comprehensive and systematic account of the performance of a completed project by assessing its design, implementation, and achievement of objectives." The EBRD will ensure that the terminal evaluation is conducted within six months before or after project completion; ensure that project evaluation team members are independent, unbiased, and free of conflicts of interest; facilitate the engagement of the GEF operational focal points in conducting the terminal evaluation; actively seek and address feedback of relevant stakeholders to prepare terminal evaluation's terms of reference and its final report. The EBRD will submit the terminal evaluation to the GEF Independent Evaluation Office (IEO) within 12 months of project completion.

93. The EBRD will also follow its normal practices of monitoring, evaluation and reporting. Gender issues and gender equality will be considered on an ongoing basis, as well as systematically at the time of the mid-term review and terminal evaluation.

Monitoring and evaluation budget

94. The monitoring and evaluation activities are budgeted by the Child Project including USD 98,500 for contracting external evaluation contractors. Other costs associated with data collection will be included in the staff costs for team members in the day-to-day execution of their tasks and, while not tracked separately, are likely to account for approximately USD 100,000 during the course of the Child Project.

95. Monitoring and verification of the results is key to determining the success of the Child Project's financing programme. The entire programme will be monitored, and inputs from participating stakeholders in the Child Project (including borrowers) will be required to provide information on POPs and water management practices, POPs reduced/avoided, achieved water savings and the level of wastewater treated and/or recycled as well as other benefits achieved under the Child Project. The in-depth technical assistance provided to companies and municipalities as part of the Child Project will establish baseline information regarding water consumption, POPs and other pollutants loads, level of wastewater treatment, and water recycling for specific locations, municipalities, and industries involved in the Child Project.

[17] http://www.gefieo.org/sites/default/files/ieo/evaluations/files/gef-guidelines-te-fsp-2017.pdf

96. Monitoring and evaluation results will be summarized in reports covering the overall progress and that of individual investment projects that will receive financing. The Child Project Leaders will be responsible for preparing regular progress reports with full support of, and in agreement with, the participating companies and other beneficiaries.

3. RATIONALE FOR THE BANK'S INVOLVEMENT

3.1 Fit with the EBRD

97. **Regional presence**: the EBRD has been active in the southern and eastern Mediterranean (SEMED) region since 2011, in the Western Balkans countries since the 1990s and in Turkey since 2009. To date, the EBRD has invested over €22 billion in more than 750 projects in the countries involved in this Child Project.

98. **Operational principles:** the EBRD shapes its strategy and operations around innovative ways of providing financing and reducing risk, in a manner that is sensitive to the different stages of transition towards establishing a market economy of each country. For each of its countries of operation, the EBRD prepares five-year cycle "country strategies" that take into consideration the six Transition Qualities.[18] The EBRD's new broader transition concept argues that a well-functioning market economy should be more than just a set of markets; it should be competitive, inclusive, well-governed, environmentally friendly, resilient and integrated. Linked with these six Transition Qualities, the country strategies set out priorities for the Bank's operations for the duration of the strategy. The priorities are determined based on country diagnostics and set together by the economists, political counsellors, EBRD's country offices and consulted with the relevant government officials.

99. **Country strategies:** the current country strategies of Albania, Bosnia and Herzegovina, Egypt, Jordan, Montenegro, Morocco, Tunisia and Turkey outline the relevant priorities illustrated in Table 3 (the country strategy for Lebanon is under development and not yet Board approved).

Table 3: Relevant EBRD country strategy objectives for the countries involved in the Child Project

Country	Relevant objectives
Albania	• Strengthen enterprise competitiveness through improved skills, new technology, governance practices and standards
Bosnia and Herzegovina	• Improved skills, capacity and quality standards for SMEs • Improved water quality • Reduced air pollution
Montenegro	• Increase operational efficiency, productivity and intensified competition, including through adoption of best practices and know-how • Enhance links between SMEs in the agribusiness sector and aggregators, food processors and retailers, as well as with the tourism sector, through adoption of international best practices in supply chain management and logistics • Support implementation of the institutional framework, finance programmes and investments that promote energy and resource efficiency, with a particular focus on the tourism sector
Egypt	• Improve productivity and competitiveness through adoption of best operational and management practices, and forging cross-border links • Support the integration of local companies and SMEs into value chains, by strengthening backward and forward linkages • Help Egypt mitigate climate change, including through improved energy and material efficiencies and more attractive framework for resource efficiency investments • Support the diversification of Egypt's energy mix towards a more sustainable model • Support water efficiency, in particular in the agribusiness sector

[18] https://www.ebrd.com/our-values/transition.htm

Country	Relevant objectives
Jordan	• Introduce business-related skills, international management practices and good corporate governance • Provide access to capital and promote innovative financial solutions to investment needs • Support access to and diversification of small business financing • Introduce investment schemes and innovative products to finance EE measures & RE projects
Morocco	• Facilitate access to finance, in particular for SMEs • Strengthen competitiveness of private sector through gains in efficiency, skills, productivity and innovation
Tunisia	• Support competitiveness by opening markets and strengthening governance • Promote economic inclusion for women, young people and populations living in remote areas through private sector engagement • Promote energy, water and resource efficiency across sectors
Turkey	• Improving the quality of infrastructure via commercialisation and private sector participation • Improving domestic and industrial waste discharges and spills, including oil and other hazardous substances (e.g. from industry), in particular in coastala reas

100. **EBRD approach on green financing**: the Child Project is aligned with the Green Economy Transition (GET) approach of the EBRD, which was launched in 2015 to put investments that bring environmental benefits at the heart of its mandate – going beyond climate change to address a wider range of environmental issues. Preserving and improving the environment are central features of a modern, well-functioning market economy and therefore key goals of the transition process. One of the GET mandate's objectives is to support investments whose primary purpose is the prevention of pollution or remediation of damage to ecosystems. This includes bringing new technologies and equipment into the market by increasing the uptake of advanced solutions that have a potential to mitigate the forms of environmental degradation caused by land-based pollution.

101. **EBRD experience in green technology transfer:** the EBRD is a major player in green technology transfer in the region through its FIN-TeCC Programme, which is operational in the SEMED, the ETC region[19], Kazakhstan and Ukraine. FIN-TeCC has already achieved great success in leveraging GEF and EBRD Special Shareholder Fund resources to result in investments in numerous innovative climate technologies in its target countries: so far, a total investment of about USD 640 million has been mobilised with around USD 10 million of grants, resulting in 130,000 tons of CO_2 reduced annually. Climate technologies supported include energy, water and material efficient technologies across the corporate sector (industry, agriculture and the built environment). Complementary to this, FIN-TeCC has supported various policy dialogue activities and capacity building efforts for experts in the targeted countries.

102. The transfer of environmentally sound technologies in this Child Project will be optimally achieved through the application of the EBRD's mandate, i.e. of helping countries to transition closer to a full market economy while applying sound banking and transition principles.

103. **Staffing:** the Child Project proposes a facility, which the EBRD, as a financial institution, is eligible and capable to design and manage. The EBRD has substantial experience in designing and implementing programmes and the necessary staff capacity in the Region to follow-up on Child Project implementation..

[19] Armenia, Azerbaijan, Belarus, Georgia, Kyrgyz Republic, Moldova, Mongolia, Tajikistan, Turkmenistan and Uzbekistan.

3.2 Risks

104. Table 4 provides a summary of indicated risks, including climate change, potential social and environmental risks that might prevent the Child Project objectives from being achieved, and the proposed measures that address these risks at the time of project implementation.

Table 4: Risks

Risks	Rating	Mitigation approach
Political risk	High	The integrated and cross-country approach of the MedProgramme will allow targeting a range of countries and sectors to mitigate country-level political and macroeconomic risk associated with a single country or sector and, therefore, ensure the successful Child Project implementation. This applies to potential investment projects with public and private sector clients, and from industrial to the municipal infrastructure sector.
Regional cooperation risk	Medium	The Child Project requires significant input from a range of stakeholders to reach its targets and is therefore dependent on regional cooperation and support. To ensure optimal stakeholder interaction, the Child Project will: • Leverage the EBRD's extensive relationship within the countries targeted and utilise the lessons learned from previously undertaken relevant projects – in particular the existing EBRD-GEF FIN-TeCC Programme and municipal investments within the countries. The Child Project will continue supporting close cooperation with in-country partners in relevant enterprises and in key ministries. • Further support champions such as municipal leaders, industrial stakeholders keen to reduce their environmental footprint, and other key Child Project stakeholders by facilitating networking and information exchange. • Link with existing initiatives such as FIN-TeCC and the broader MedProgramme, which is an effective way to connect and strengthen regional cooperation. This approach will ensure maximum outreach and involvement by bringing in key stakeholders through consultations early on during implementation process.
Technology risk	Low	This risk is related to the possibility that inappropriate technologies would be chosen and / or implemented or that the technologies could fail during implementation. To mitigate this risk, only proven technologies will be eligible for financing. While the technologies are expected to be innovative for the region and target countries, EBRD will only invest in technologies which are mature in the markets in more advanced countries. Additionally, technical assistance will be provided throughout the project cycle to ensure appropriate implementation of technological solutions.
Financial risk	Medium	This risk will be mitigated by conditionalities of the EBRD's financing mechanism and by thorough technical support as a Component of Child Project implementation. As a financial institution, the EBRD operates extensive risk assessments of all its transactions covering, credit, economic, environmental, implementation, legal, market, technological and integrity risks. All investment projects that will be financed through this Child Project will be subject to standard EBRD approval procedures.
Climate change risk	Low	The primary potential climate risks relate to low water availability, which could lead to problems with wastewater treatment and effluent management as well as flooding and other extreme climatic events that could overwhelm or otherwise compromise wastewater infrastructure.

Risks	Rating	Mitigation approach
		The Child Project will integrate mitigation and adaptation measures for climate risks within the investments supported. The due diligence of investments will identify and consider climate risks, and potential responses to climate change impacts will be included in the investment project design. The increased reuse of water may be considered in some investment projects as a climate resilience measure.
Environmental and social risk	Low	An Environmental and Social Action Plan (ESAP) will be developed for each individual investment project supported by the Child Project for mitigation of identified related environmental and social issues and impacts during preparation, construction and operation of the investment project, and to bring the Companies' operations into compliance with the EBRD. This will include addressing gender issues as part of EBRD's wider gender policy.

3.3 Socio-economic benefits and gender dimensions

105. The Mediterranean Sea is characterised by pressures deriving from coastal anthropogenic activities which result in adverse environmental impacts. The proposed Child Project will help to improve women's and men's quality of life across the region via targeted investments and capacity building.

106. The current situation of the Southern and Eastern shores of the Mediterranean shows signs of progressive deterioration of environmental security as a consequence of complex and interlinked factors affecting social and economic well-being. It is expected that the Child Project will improve environmental security via addressing the following concerns:

- Adverse impact of human activities on the environment;
- Direct and indirect effects on national and regional security of various forms of environmental change (especially water scarcity and degradation), which may be natural or human-generated;
- Insecurity that individuals and groups (from small communities to humankind) experience due to environmental change such as water scarcity, air pollution and climate variability.

107. The key environmental impact areas that will be targeted by the Child Project include organic pollution associated with discharges of untreated domestic and industrial wastewater and loads from urban and industrial effluents, as well as POPs contamination.

108. Overall, the Project will deliver a range of social and environmental benefits associated with reduced coastal and marine pollution from harmful chemicals and wastes. Among the benefits are improved quality of seawater, reduced human health risks, restored freshwater resources, habitats and ecosystems.

109. Additionally, the Child Project will deliver associated benefits with improved resilience to the expected impacts of climate change – notably as relates to water availability (via increased reuse of water resources). The assessment of potential impacts of climate change in the Mediterranean region revealed increased risks for drought, floods, soil erosion and desertification processes, increase in storm events, coastal erosion, changes in seawater temperature and salinity currents together with sea level rise (regional climate change adaptation framework for the Mediterranean and coastal areas, UNEP/MAP 2017). Where possible, the Child Project will integrate climate change risks within the environmental investments and technological developments to mitigate negative impacts of climate change and improve the resilience of economy and local businesses.

110. The delivery of inclusive and gender-responsive environmental results constitutes the priority for all GEF agencies, including the EBRD. The GEF approved a reinforced policy in November 2017

at the 53rd Council Meeting, shifting the focus from a '*gender-aware, do no harm*' approach to a *'gender-responsive, do good'* approach and UN Environment clearly recognises the role of equality as a 'driver of sustainable environment development'. Similarly, the MedProgramme adopted its Gender Mainstreaming Strategy, placing gender-responsive activities and gender-aware policy-making at the core of the MedProgramme agenda to leverage opportunities for inclusive and accessible environmental and social co-benefits.

111. Gender equality is considered key in the EBRD's activities to advance sustainable growth in its CoOs and one of the institution's guiding principles and core values. Gender equality is valued as an integral part of the EBRD's commitment to promote sustainable and environmentally sound development across investments and donor-funded activities. In December 2015, the Bank adopted its first ever Strategy for the Promotion of Gender Equality 2016-2020[20], to guide its work on the promotion of gender equality, with the objective to mainstream gender across the Bank's operations by 2020 and contribute to the creation of an enabling environment that can address the constraints which gender inequality places on transition.

112. Within this Child Project, all investments will be screened for any gender issues which should be addressed within Child Project implementation – including identification of gender market distortions.

113. Specific budget is allocated to meet the Child Project-level, as well as MedProgramme-level, gender objectives and ensure that gender issues are adequately identified, relevant activities are implemented, stakeholders are meaningfully engaged and their capacity is enhanced with a view to deliver both on socioeconomic and environmental co-benefits across the entire Programme. There are several specific Child Project activities that explicitly address gender. When relevant, those activities will be carried out in coordination with the Gender team of the MedProgramme, and developed at Child Project level when appropriate:

- **At investment project-level, identification of gender issues** in the management of wastewater (including sanitation) and POPs pollution in the selected project areas. Social factors, primarily gender-determined occupational roles and household responsibilities, have a direct impact on human exposure to wastewater, which tends to vary among men and women. The impact of the proposed investments on men and women in the project areas will be assessed in the context of their economic activities in specific sectors. Gender differences in terms of vulnerability to the impacts of wastewater, due to occupational roles, household structures, and in wastewater management responsibilities, will also be assessed. Collection of sex-disaggregated data throughout the project will be critical to identify the main gender gaps, with a focus on economic activities, and where feasible, including epidemiological health data on pollution exposure.
- **Development and Implementation of Gender Action Plans** aimed at addressing gender issues at the project level and contributing to the broader programme objectives and outcomes. Dedicated gender budgeting will guarantee that gender activities are implemented and contribute to the achievement of the broader project objectives and outcomes. This will build on concerted efforts from different actors at the project-level to ensure gender stakeholders are engaged, capacity and consensus are mobilized, and resources are used to target beneficiaries to leverage both socioeconomic and environmental co-benefits. To provide some examples, potential gender activities at the project level could include (a) the design and implementation of trainings for women in the project areas on issues of reuse of treated wastewater and on issues related to the acceptance of reusing treated wastewater (given this would take into consideration women's household responsibilities, recognise their traditional knowledge and role regarding sustainable water management); and (b) training on wastewater (and in certain cases sanitation) as well as chemicals and wastemanagement and sustainable urban agriculture practices, in case of project areas characterised by a rapid increase in urban population, land

[20] For more on gender equality at EBRD, see https://www.ebrd.com/ebrd-and-gender-equality-overview.html.

scarcity and the challenge of urban food security that points to the need of urban agriculture alternatives, with associated pressure on water supply.

- **Stakeholders' awareness-raising and capacity building** to address gender issues in the context of chemicals and wastewater and POPs management. Gender aspects will be integrated in education and outreach efforts on management of wastewater. These will feed into the broader programme's knowledge management and program coordination strategy (Activities under Component 3 of the Child Project), taking stock of the existent inequities and gender norms of the selected countries in the Mediterranean region. Gender-sensitive awareness-raising, targeting stakeholders outside of the supply chain, especially governments and civil society representatives, will be carefully designed and implemented. Following the identification of gender issues at the project-level, opportunities for policy dialogue engagement with local authorities to promote gender co-benefits in the context of addressing hazards and risks with particularly harmful impacts on women may arise. Relevant stakeholders and implementing partners will take into consideration gender differences in the sector and ensure participation of different groups in policy development and decision-making processes, by identifying which stakeholders can support advocacy for sound chemicals, wastewater management, and gender priorities at the same time. Therefore, the design of interventions to manage wastewater generation and treatment processes as well as POPs reduction and avoidance will be done with a gender perspective integrated throughout.

3.4 Key stakeholders

114. Key stakeholders to be involved in the Child Project and the nature of their involvement are described below.

115. ***Publicly owned enterprises*** – One of the key potential beneficiaries of the Child Project will be publicly owned enterprises such as wastewater treatment plants / water distribution companies, as well as companies operating in the power and energy distribution, waste and transport sectors. As with private sector enterprises, these publicly-owned enterprises will play a key role in identifying, developing and implementing projects, and will benefit directly both from investment and technical cooperation activities in the Child Project.

116. ***National and local public sector entities*** – Partnership and dialogue with relevant national governments and national and local public sector entities are considered critical for scaling-up investments in environmental technologies for water systems and coastal areas, and POPs reduction and prevention. This coordination includes each country's GEF focal points who will be engaged at a programmatic level. The EBRD has already established close links with governments in all of its CoOs, including the SEMED region, Turkey and Western Balkans, and will continue to foster these relationships through policy dialogue and networking (in addition to investment financing) related to the Child Project.

117. ***Private sector*** – The private sector is a key stakeholder from whom participation and benefits will be secured under the Child Project Component 1 and 2. Private enterprises will play a key role in identifying, developing and implementing projects, and will benefit directly from the financing mechanism established. The private sector values the EBRD's role in technology transfer and climate investments and looks to continue to partner in the areas of other environmental technologies. The EBRD is committed to building private and public-private partnerships to promote the adoption of BATs/BEPs to tackle land-based and water based pollution, and POPs reduction and prevention demonstrating new technologies, and building stakeholder capacity in the Region.

118. ***Other MedProgramme implementing agencies*** – Through a combination of systematic communication activities including at annual steering committee meetings and via continued ad-hoc communication, there will be an ongoing exchange with the other MedProgramme implementing agencies (notably UNEP) regarding the Child Project's ongoing activities – especially to ensure there is no overlap in investments using GEF resources. Additionally, coordination will be undertaken related to knowledge management, monitoring and evaluation.

119. ***Research institutions, regional thematic experts and institutes*** – During Child Project preparation and implementation, relevant expert stakeholders from academia, private research and other thematic experts will continue to be identified for the purpose of participating in and possibly supporting the policy dialogue. These stakeholders will be consulted and asked to contribute and comment on the policy dialogue outputs based on their technical, policy and regional expertise.

120. ***NGOs, civil society and local communities*** – The Child Project raises awareness of environmental technologies and their role in tackling POPs, and land-based and water based pollution in the region. The Child Project's information resources will be accessible to NGOs, civil society and local communities, including women's groups, in the region and beyond for use in their own activities. As such, the resources generated will benefit from, as well as enhance, the expertise of these groups related to addressing the challenges of climate change.

121. ***Public institutions and existing other non-governmental initiatives on environmental technologies, land and based pollution of coastal areas*** – The EBRD will coordinate and network with institutions, bilateral counterparts, such as respective industry associations, and international agencies to promote integrated depollution approaches across sectors and encourage knowledge sharing about best practices.

3.5 Cost-effectiveness

122. The Project involves a GEF investment of USD 8.75 million and can be considered cost effective since it is expected to leverage at least USD 90 million in cofinancing – with a leverage ratio of 11:1.

123. Additionally, the technical assistance activities both within specific countries related to building capacity and disseminating information throughout the region is expected to result in additional investments beyond the immediate scope of the project (indirect impacts). The example of FIN-TeCC has shown the potential for scaling up of similar activities related to climate change.

124. Similarly, the industry-led depollution roadmap would be a way of bringing industry stakeholders together in a cost-effective manner to increase the likelihood of upscaling impacts beyond the immediate investments within the project, since it would help to create an industry-side push for implementation of advanced pollution control technologies.

125. Other policy dialogue activities can also be expected to have a cost-effective impact. A country or municipality adopting appropriate policy mechanisms and action plans is expected to result in improved outcomes across the impacted area, and not just related to the immediate investment within the project.

4. PROJECT MANAGEMENT

4.1 Project management structure

126. Overall, the Project implementation and management structure will be integrated into the existing structures for FIN-TeCC which has an ongoing management team and will be able to incorporate the Project's activities along-side those of FIN-TeCC.

127. **Project Leaders** – The Child Project will be led by the Energy Efficiency and Climate Change (E2C2) team, located in EBRD's headquarters, in coordination with the EBRD country offices in Cairo and Belgrade that will act as regional hubs for the respective regions.

128. **Project Management Team (PMT)** – The PMT will be composed of a project manager with additional sectoral experts mobilised as appropriate for the implementation of the different Child Project Components. Those experts will be selected based on their experience in supporting and implementing environmental projects and policy dialogue initiatives related to coastal and marine pollution, environmental technologies and sustainable water resources management.

129.

130. **Coordination with external stakeholders** – Coordination with public institutions and non-governmental initiatives focusing on environmental technologies and land-based pollution of coastal areas will involve continued communication and networking with all relevant stakeholders, bilateral counterparts and international agencies working on environmental technology transfer. The EBRD will ensure full coordination with existing initiatives in the Region in order to leverage their resources and support the key outputs of the Project.

131. **For Chemicals and Waste**, the UN Environment Chemicals and Health Branch, Mediterranean Action Plan, and Sustainable Consumption and Production Regional Activity Centre, will be closely consulted, in close coordination with Child Project 1.1.

4.2 Consultancies

132. The Child Project will be implemented in combination with a series of consultancies. Due to the specificity of tasks to be undertaken, the Child Project activities will be either delivered by Consortium of companies or the activities will be split into distinctive tasks. Some of the details of the anticipated consultancies are provided below. This list is not exclusive or exhaustive.

133. Consultancies will be involved for the development of a market study, a technology guide for what will be eligible technologies and techniques the Child Project, a feasibility study for an innovation voucher scheme, and the development of a pipeline of potential investments.

134. Consultancies will deliver targeted technical assistance to the projects being further developed for investment, as well as ongoing technical assistance during implementation. Consultancies might also be involved for the support of KM and Policy Dialogue activities.

135. Based on the Project's needs, the Child Project management team in combination with E2C2 will decide upon the breakdown of these assignments and hire specialised consultants.

136. Regarding technical work related to C&W, the EBRD may seek to coordinate project execution with UN Environment's Mediterranean Action Plan's Coordinating Unit and its structures. UNEP/MAP cooperates with various UN entities and other Inter-Governmental organizations active in the field of Mediterranean environmental protection, with such partnerships providing support for capacity building and technical assistance for the development of measures and the implementation of the Barcelona Convention and Protocols.

137. In addition, the EBRD may consider cooperating with other partners for some elements of project execution, in line with specific needs as they emerge consistent with enabling high quality project and investment delivery. While specific needs and associated roles are subject to emerging needs of the Project's investments, the EBRD may enter into more formalised strategic alliances such as through a Memorandum of Understanding or Framework Agreement to enable exploitation of synergy effects related to effectively supporting the specialized nature of the C&W and IW activities. With establishing such partnerships, the Project will also look for opportunities for cost savings and efficiencies. The EBRD will maintain supervisory and monitoring responsibilities over all Project activities regardless of the specialized agencies that could be brought in to support execution.

ANNEX 1. PROJECT RESULTS FRAMEWORK

Project Strategy	Objectively Verifiable Indicators	Baseline (Start of Project – beginning of 2019)	Target (End of project – end of 2025)	Sources of Verification
Impact				
Increased water / food / energy / ecosystem security in the MedSea region	Additional private/public wastewater systems discharging directly or indirectly into coastal hotspots upgraded	0	3	EBRD project / investment reports and feasibility studies
	Additional m^3 of water recycled per year in private/public systems[21]	0	1.5 million	
	Additional m^3 of wastewater treated per year in private/public systems	0	3.5 million	
Quantifiable and verifiable tons of POPs eliminated or reduced	Tons of POPs eliminated or prevented[22]	0	1,250 tons	

[21] From the IW tracking tool indicator #15:8 = Water use efficiency measures - m^3/year water saved

[22] While the project delivery approach is a coordinated approach with Child Project 1.1, the targets and indicators included in this logical framework relate to Child Project 1.3 only.

Outcomes				
1.1 Targeted investment preparation support is provided	Pipeline of investments defined - Number of projects in the pipeline	No targeted investment preparation support	Wastewater and POPs potential investment projects identified	Project reports including: EBRD financial reports, annual and quarterly project progress reports
2.1 Environmental technology investments are mobilised	Volume of investments mobilised[23]	No investments	90 million USD of investment mobilized for wastewater and POPs pollution reduction	Project reports including: EBRD financial reports, annual and quarterly project progress reports
	Number of projects meeting international environmental, financial and social standards	No projects meeting international, financial and social standards	8 investment projects meeting standards	Project reports including: EBRD financial reports, annual and quarterly project progress reports
	Direct beneficiaries of investments	No beneficiaries of investments	Beneficiaries of investments disaggregated by gender when possible (target TBD according to investments)	Project reports including: EBRD financial reports, annual and quarterly project progress reports
3.1 Strengthened capacity to transfer advanced pollution reduction technologies	Number of industrial companies / members of industry associations with knowledge increase of advanced pollution reduction environmental technologies	Low capacity No knowledge and information networks	20 industrial companies/ members of industry associations/ with increase knowledge in advanced wastewater and chemicals and waste depollution technologies	Project reports including: EBRD financial reports, annual and quarterly project progress reports
4.1 Depollution oriented policy tools made available in the region.	Number of policy dialogue activities undertaken	No Existing Action Plan No Existing Industry Roadmap	1 City Action Plan 1 Industry Roadmap	Project reports including: EBRD financial reports, annual and quarterly project progress reports.
Outputs				
1.1.1 In-depth market analysis of target countries	Existence of market study	No market study covering the 8 countries	Market study existing and available	The study available
1.1.2 A guide for technology and / or practices which can be supported	Existence of a guide	No guide	Guide existing and available	Guide available
1.1.3 A feasibility study for an innovation voucher scheme	Existence of a feasibility study	No study	Feasibility study existing and available	Feasibility study existing and available
1.1.4 Targeted pre-investment and investment cycle support provided for reduction of POPs and water pollution	Number of companies with in-depth technical assistance	0	8	Project reports including: Project inception report from consultants, annual and quarterly project progress reports

1.1.5 Gender Action Plan	Number of Gender Action Plans developed	0	1	Gender Action Plan available
2.1.1 Investments supported by GEF and EBRD resources	Number of investments supported by GEF and EBRD resources	0	8	Project reports including: EBRD board documents, tracking documents
3.1.1. Case studies of investments implemented within the project	Number of case studies available online	0	8	Web-links and the actual case study files
3.1.2 Dedicated communication material: leaflets, infographics, videos, web-site updates, etc.	Package of materials available and distributed	0	2	Examples of communication materials, information on distribution from project reports / tracking
3.1.3 International level events for programme management activities (with other MedProgramme Child projects)	Number of events conducted	0	5	Event reports / back-to-the office reports and / or annual and quarterly project progress reports
4.1.1 Policy developed to support the transfer of environmental technologies	Number of policies developed	No relevant policies developed	Contribution to a Green City Action Plan[24] Industrial depollution roadmap/ industrial water and/or POPs management roadmap developed	Green City Action Plan available Industrial depollution / industrial water and/or POPs management roadmap developed

[23] From the IW tracking tool indicator #15:17 = Amount of USD leveraged from private sector

[24] From the IW tracking tool Indicator #5 on National / Local Reforms with a target of: 3 = National/local policies adopted with technical/enforcement mechanism in place