

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Improving Transboundary Water Security and Biodiversity through Integrated Water Resources Management and Ecosystem Restoration in the Lake Ohrid Watershed

Region	GEF Project ID
Europe and Central Asia	12251
Country(ies)	Type of Project
Regional	MSP
North Macedonia	
Albania	
GEF Agency(ies):	GEF Agency ID
UNDP	10345
Executing Partner	Executing Partner Type
Global Water Partnership	Others
National executing entities, TBD	
GEF Focal Area (s)	Submission Date
Multi Focal Area	12/19/2025

Project Sector (CCM Only)

Taxonomy

Influencing models, Stakeholders, Capacity, Knowledge and Research, Gender Equality, Focal Areas, International Waters, Land Degradation, Climate Change, Nutrient pollution from Wastewater, Pollution, Sustainable Land Management, Climate Change Adaptation, Climate Change Mitigation, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approaches, Private Sector, SMEs, Individuals/Entrepreneurs, Beneficiaries, Local Communities, Civil Society, Non-Governmental Organization, Academia, Type of Engagement, Partnership, Information Dissemination, Consultation, Participation, Communications, Awareness Raising, Capacity Development, Knowledge Generation, Knowledge Exchange, Learning, Gender Mainstreaming, Women groups, Sex-disaggregated indicators, Gender results areas, Access to benefits and services, Participation and leadership, Biodiversity, Protected Areas and Landscapes, Terrestrial Protected Areas, Productive Landscapes, Tourism, Mainstreaming, Agriculture and agrobiodiversity, Fisheries, Species, Threatened Species, Invasive Alien Species, Biomes, Wetlands, Lakes, Rivers, Restoration and Rehabilitation of Degraded Lands, Ecosystem Approach, Sustainable Livelihoods, Sustainable Agriculture, Improved Soil and Water Management Techniques, Freshwater, Lake Basin, Nutrient pollution from all sectors except wastewater, Strategic Action Plan Implementation

Type of Trust Fund	Project Duration (Months)
GET	48
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
4,050,912.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
384,835.00	0.00

Total GEF Financing: (a+b+c+d)	Total Co-financing
4,435,747.00	30,755,784.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
150,000.00	14,250.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
164,250.00	4,599,997.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: No Competitive Window: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B "project description". (max. 250 words, approximately 1/2 page)

The Lake Ohrid watershed, situated in the mountainous region of the extended Drin River Basin and shared between North Macedonia (78% of the watershed) and Albania (22% of the watershed), is a globally significant oligotrophic system and one of Europe's oldest and deepest lakes. Recognized as a UNESCO World Heritage Site, it boasts an exceptional ecosystem harbouring 212 endemic species and features a complex hydrology. The basin is home to 132,059 inhabitants distributed across 94 predominantly small settlements within the local municipalities of Pogradec in Albania, and Ohrid, Struga, and Debrca in North Macedonia. The region's economy is intrinsically linked to its rich natural and cultural assets, driven primarily by a tourism sector that attracts over 410,000 visitors annually, alongside other economic activities dominated by small-size enterprises in fisheries, agriculture, trade, and light manufacturing.

Despite its immense ecological and cultural value, the Lake Ohrid watershed is facing severe pressures from anthropogenic activities. Detailed scientific analyses and transboundary diagnostic efforts have identified six Significant Water Management Issues threatening the basin. The most important threat is point-source and diffuse water pollution, driven by inadequate urban wastewater treatment and nutrient runoff from agricultural lands, which has caused a fourfold increase in phosphorus concentrations over the past century. Unregulated water abstractions, combined with the use of the lake as a natural reservoir for downstream hydroelectric power generation and the emerging impacts of climate change, threaten the basin's delicate water balance and biodiversity. Furthermore, significant hydro morphological alterations, notably the historic artificial diversion of the Sateska River, introduce sediment loads and nutrient inflows directly into the lake, transforming natural habitats into uniform sandy bottoms. Concurrently, native fish stocks are plummeting due to disjointed national fishing regulations, illegal fishing practices including the abandonment of ghost nets on spawning grounds, and the introduction of alien species. These environmental pressures are further exacerbated by uncoordinated urban sprawl, commercial and recreational boating lacking proper port infrastructure, and tourism developments that, seasonally, exceed the carrying capacity of the basin's fragile littoral zones.

Recognizing these threats, the littoral countries have historically engaged in cooperative efforts, notably establishing the Lake Ohrid Watershed Agreement in 2004 and the Lake Ohrid Committee. The countries formulated a transboundary Lake Ohrid Watershed Management Plan in 2020, aligned with the European

Union Water Framework Directive, being a result of a demonstration activity under the GEF Drin Project. There have been moderate results in the implementation of the Plan due to financial, institutional and policy constraints. Overall, there have been national level and sectoral approaches in the planning and management of the Lake's resources resulting in asymmetrical and fragmented conservation investments rather than unified basin-wide action.

To overcome these historical limitations and prevent the irreversible degradation of the lake's ecosystems, a shift in governance and management is urgently required. The proposed project aims to protect and sustainably manage the Lake Ohrid basin by improving its transboundary governance, accelerating the adoption of targeted measures to alleviate environmental pressures, and strengthening bilateral cooperation. The project's central vision is to shift transboundary cooperation from isolated, unenforceable planning efforts to legally binding and integrated governance. Doing so the proposed project will operate within the framework of the broader Drin Coordinated Action and in full alignment with the regional GEF Drin Strategic Action Programme implementation project, downscaling basin-wide scientific tools and ensuring that local ecosystem restoration, pollution control, and policy alignment directly contribute to the sustainable management of the extended Drin River Basin. This approach leverages the political momentum of the Drin Coordinated Action framework, ensuring that the governance of Lake Ohrid feeds into and remains aligned with the broader regional water management architecture.

Achieving this vision requires systematically lifting the barriers that currently hinder effective management. Institutionally and legally, sectoral planning and uncoordinated regulatory regimes across borders prevent a unified response to the lake's transboundary problems. Technically, a disconnect exists between science and policy; critical gaps in harmonized monitoring, climate-informed hydrological data, and joint fish stock assessments impede evidence-based decision-making. Operationally, underfunding and limited local technical capacity restrict the transition from theoretical planning to the scaled deployment of cost-effective technologies and nature-based solutions. Socially and culturally, fragmented engagement strategies, low public awareness, and the absence of gender-responsive governance have previously failed to secure the necessary buy-in from farmers, fishermen, women, and marginalized resource users, threatening the local appropriation and long-term sustainability of any environmental intervention.

The project addresses these barriers through a sequenced Theory of Change predicated on the logic that governance reform without an evidence base is ineffective, while physical interventions without governance reform are unsustainable. The project design is informed by lessons drawn from the GEF Drin Project and other GEF transboundary interventions, and the historical bilateral cooperation between Albania and North Macedonia under the 2004 Lake Ohrid Agreement: the necessity to tightly align envisaged transboundary outcomes with national management priorities; the understanding that effective transboundary governance requires empowering existing joint bodies (like the Lake Ohrid Committee) and backing them with enforceable tools as a response to uncoordinated national efforts; and the need to capitalize on a shared scientific foundation to drive evidence-based policy. Furthermore, the design reflects the lesson that long-term sustainability and community appropriation rely on integrating gender and stakeholder engagement strategies at the earliest stages, as well as the crucial need to implement high-impact demonstration projects that link ecosystem protection directly to local livelihoods to generate genuine local ownership.

Component one of the project establishes a science-to-policy pathway by generating a unified scientific evidence base. It will conduct surveillance and investigative monitoring to establish European Union Water Framework Directive ecological reference conditions, addressing the critical lack of standardized environmental baselines. This will be accompanied by the development of climate-informed hydrological

and hydraulic models to accurately map the basin's water balance and support disaster risk management. The project will also establish a harmonized, transboundary-level operational monitoring program, with gender-disaggregated data collection, and execute a comprehensive joint fish stock assessment study to provide the exact scientific baselines needed for future quota and gear negotiations.

Component two translates this foundational scientific knowledge into advanced transboundary legal and policy frameworks, directly removing the policy bottlenecks that stalled previous initiatives. The project will develop a Joint Fishery Management Plan to harmonize disjointed national regulations and harmonize the disparate management and planning tools for geographically adjacent nationally established protected areas. Crucially, the project will update the Lake Ohrid Watershed Management Plan, explicitly structuring it so that it can be formally adopted as a legally recognized addendum to the national level Drini (Albania) and Black Drin River (North Macedonia) basin management plans. Furthermore, it will develop a gender-sensitive transboundary Master Plan to guide unified spatial planning and tourism development across local municipalities. The project will consolidate these scientific and managerial outputs into formal, legally binding Protocols to the Lake Ohrid Agreement covering monitoring, fisheries, and tourism, thereby elevating the Lake Ohrid Committee's mandate.

Transitioning from policy frameworks to on-the-ground scaling, component three operationalizes priority measures to reduce nutrient and toxic pollution, mitigate soil erosion, and enhance overarching ecosystem resilience. The project will deploy targeted nature-based solutions, including the construction of engineered wetlands for rural wastewater treatment in a priority area to reduce anthropogenic phosphorus loading. It will introduce precision agriculture demonstration activities, actively empowering women practitioners to optimize water use and minimize agrochemical runoff. An infrastructural focus will be the implementation of nature-based erosion control measures in the upper Sateska river catchment to halt sediment inflows under weather events. These physical interventions will be complemented by the development of investment documentation and financing mobilization actions for the reconstruction and rehabilitation of sustainable port and waterway infrastructure in Ohrid town to manage boating impacts, alongside the implementation of compliance protocols, awareness raising, gender-responsive training programs, and the procurement of equipment for enforcement authorities to actively combat illegal fishing. Demonstrating country ownership, the physical interventions in North Macedonia will be directly supported by a one-million-dollar allocation from the country's GEF STAR resources.

To ensure these environmental and infrastructural results are sustained, component four delivers the essential capacity-building, knowledge management, and communication activities needed to build a basin-wide culture of shared stewardship. Recognizing that environmental tools only work if they are understood and adopted, the project will translate complex scientific data and management plans into highly accessible formats. This outreach is paired with a two-way stakeholder feedback system and a dedicated Gender Community of Practice to ensure the experiences of women, fishermen, farmers, and civil society actively shape basin governance. Crucially, the component delivers targeted training programs that equip the Ohrid Hydrobiological Institute and local municipalities with the specific skills required to apply and enforce the newly developed transboundary tools. These localized insights will then be scaled and shared through active peer-to-peer exchange within the global GEF IW:LEARN network.

Finally, component five provides the framework for accountability and adaptive management by establishing a gender-responsive monitoring and evaluation system, complemented by a transparent grievance redress mechanism, to track progress, monitor livelihood improvements, and ensure all stakeholder concerns are addressed throughout the project lifecycle..

To strengthen national ownership, the project will engage national scientific institutions, local municipalities, and community stakeholders in the active steering and execution of project activities.

The Lake Ohrid project will place one shared water ecosystem under improved cooperative management (GEF CI-7), directly benefiting an estimated 71,203 people with gender parity in participation (CI-11). It will deliver 8,202 ha of landscapes under improved practices (CI-4), and place 42,000 ha of terrestrial protected areas under improved management (CI-1), in addition to environmental, social, and economic co-benefits related to equitable livelihood enhancements, climate resilience, and halting the degradation of the basin's highly sensitive ecosystems.

The Lake Ohrid project can serve as a demonstrator for future GEF investments in transboundary lakes, particularly looking toward GEF-9 and beyond. By successfully bridging the gap between macro-level regional governance frameworks (the Drin Basin) and localized, ecosystem-specific management (Lake Ohrid), the project provides a replicable blueprint for scaling localized nature-based solutions within larger transboundary systems. The project links ecosystem preservation to the socio-economic livelihoods of local communities. The harmonization of disparate national protected area regimes, along with the integration of sectoral plans under a transboundary Master Plan and their embedding into local, legally binding spatial plans, forms an approach for science-informed integrated basin management that can be replicated in other lake basin systems. Through systematic knowledge capture and the GEF IW:LEARN network, these validated frameworks will be widely disseminated to benefit future transboundary lake projects globally, offering a tested pathway for achieving sustained ecosystem restoration and policy alignment in complex transboundary landscapes.

Indicative Project Overview

Project Objective

To protect and sustainably manage the Lake Ohrid basin by improving its governance, accelerating the adoption of measures to alleviate pressures on the ecosystems and strengthening transboundary cooperation.

Project Components

Component 1: Enhancing Enabling Environment for Transboundary Cooperation

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
792,562.00	2,500,000.00

Outcome:

1.1. Enhanced policy making, management and transboundary cooperation is enabled through the improved understanding of the state of the lake and its ecosystems, and the development of decision support tools.

Output:

1.1.1 Surveillance and investigative monitoring performed, and reference conditions for the ecological status of Lake Ohrid water bodies developed, to enable management of the basin in accordance to the WFD.

1.1.2 A hydrological and a hydraulic model developed and operationalized to enable an updated water balance incorporating climate change considerations, and informed decisions in sectors depended on water availability.

1.1.3 A transboundary level operational monitoring program aligned with the WFD, is developed to support informed decision-making and enhanced coordination between the two countries.

1.1.4. A joint fish stock assessment study is developed to enable the development of fisheries management instruments.

Component 2: Advancing Legal and Policy Frameworks for Joint Management

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
894,500.00	4,500,000.00

Outcome:

2.1. Transboundary water and ecosystem management is improved, and sustainable socio-economic growth is enabled through the development of essential transboundary and national policy and legal instruments.

Output:

- 2.1.1 A joint Fishery Management Plan, developed and approved to enable harmonized fishery regulations in Albania and North Macedonia.
- 2.1.2. Country level management and planning tools for geographically adjacent nationally established protected areas in the Lake Ohrid Watershed are harmonized to guide consistent protection and sustainable resource use.
- 2.1.3. An updated Lake Ohrid Management Plan is developed and adopted to drive the management of the watershed in accordance with the WFD.
- 2.1.4. A master plan for Lake Ohrid is developed, approved and operationalized to lead the coordinated implementation of existing plans and plans developed under Outcome 2, and for guiding transboundary level tourism development.
- 2.1.5. Protocols to the Lake Ohrid Agreement related to (i) monitoring and information exchange, (ii) fisheries management and (iii) tourism, are developed and presented to the littoral countries for signature.

Component 3: Investing in Pollution Control and Ecosystem Resilience

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,587,500.00	20,085,784.00

Outcome:

3.1. Nutrient and toxic pollution is reduced, and ecosystem functioning and preservation is enhanced through priority actions and demonstration of nature based and agricultural solutions.

Output:

- 3.1.1. One nature based solution for wastewater treatment (engineered wetlands) is constructed in a priority area, benefits documented and disseminated, and opportunities for replicating and scaling are pursued.
- 3.1.2. Two precision agriculture demonstration activities implemented to empower women practitioners and promote practices in priority areas for nutrient and toxic pollution reduction, soil conservation, and water use optimization, benefits documented and disseminated, and opportunities for replicating and scaling are pursued.
- 3.1.3. Nature-based solutions designed and implemented for erosion control in the Sateska basin in North Macedonia.*

3.1.4. Investment documentation developed and financing mobilization actions undertaken for the reconstruction/rehabilitation of Ohrid town's port and waterway infrastructure, reducing pressure on the littoral ecosystem.

3.1.5. Compliance protocols, equipment procurement, awareness raising, and training programs implemented to enhance the illegal fishing monitoring and control capacities in both countries and empower women practitioners.

Component 4: Knowledge Management (KM) and communications

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
433,500.00	1,500,000.00

Outcome:

4.1. Effective and inclusive knowledge management, lessons learning, capacity building and communications

Output:

4.1.1. Knowledge mechanism and products, and communication materials, are developed and disseminated for basin institutions and stakeholders based on project results.

4.1.2. Targeted capacity development implemented for authorities to support application of project developed tools and approaches.

4.1.3. IW:LEARN level and wider transboundary knowledge exchange contributions are delivered, including participation in IW:LEARN activities.

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
150,000.00	700,000.00

Outcome:

5.1. Effective and adaptive project management based on gender-inclusive M&E and lessons learning.

Output:

5.1.1 A gender-responsive project Monitoring and Evaluation System designed and operational.

5.1.2. Annual review and grievance mechanism developed & implemented. PIRs completed and independent project evaluations conducted.

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)

Component 1: Enhancing Enabling Environment for Transboundary Cooperation	792,562.00	2,500,000.00
Component 2: Advancing Legal and Policy Frameworks for Joint Management	894,500.00	4,500,000.00
Component 3: Investing in Pollution Control and Ecosystem Resilience	1,587,500.00	20,085,784.00
Component 4: Knowledge Management (KM) and communications	433,500.00	1,500,000.00
M&E	150,000.00	700,000.00
Subtotal	3,858,062.00	29,285,784.00
Project Management Cost	192,850.00	1,470,000.00
Total Project Cost (\$)	4,050,912.00	30,755,784.00

Please provide justification

*Outputs 3.1.3. and 3.1.4. will be implemented in North Macedonia and financed entirely by the North Macedonia STAR funds allocated for this project.

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

1. Baseline Description

1.1. Background on Lake Ohrid

Sitting in the mountainous region in the southwest part of North Macedonia (1,091 km²; 78% of the watershed) and the eastern part of Albania (313 km² or 22% of the watershed), the Lake Ohrid basin is part of the extended Drin River Basin (see Annex 1 Maps; Lake Ohrid map). Lake Ohrid is a calcium bicarbonate-dominated, oligotrophic lake and is one of the oldest -estimated age of 2 to 5 million years- and deepest lakes in Europe having a maximum depth of 290 m and average depth of 155 m. The lake is located at an altitude of 693 a.s.l. and has a surface area of 358 km².

It hosts a unique ecosystem; of the 1,200 registered species in the lake, 212 are endemic; among them, 17 endemic fish. There are 9 protected/sensitive areas in the basin, that fall into four of the six IUCN categories (see Annex 1: Maps; Protected Areas map). The total area of all protected areas equals 661.6

km² (47% of the total basin area), of which 273.2 km² in Albania and 393.2 km² in North Macedonia. Lake Ohrid's great natural and cultural value is legally acknowledged and protected in both riparian countries. In addition to the protected areas, the lake is proclaimed as a UNESCO World Heritage Site; the North Macedonia part since 1979 and the Albania part since 2019.

The hydraulic connection between Lake Prespa and Lake Ohrid through a karstic massif, makes Prespa the most important source of water for Lake Ohrid, contributing over 40 percent of its water. In addition to the karst springs, Lake Ohrid has 40 tributaries, most of which are creeks and rivers that only flow temporarily during heavy rains and periods of snowmelt (see Annex 1: Maps; Hydrology map). The main fluvial tributaries of the lake sit in North Macedonia. The main tributary is the Sateska river that used to flow into the Black Drin River, but it was diverted -for reasons related to hydropower generation further down in the Black Drin- to flow into Lake Ohrid. Two-thirds of the Lake Ohrid water outflows into the Black Drin River at the town of Struga; the remaining one-third of the lake's water is lost through evaporation. Since 1962 the lake's outflow has been controlled with a weir, which regulates the water level, following agreements between Yugoslavia and Albania (1962 and 1979).

There are 5 different aquifers types in the basin (see Annex 1: Maps; Hydrogeology map): (i) Aquifer zones with intergranular porosity having high to middle transmissivity and permeability; (ii) Aquifer zones with intergranular porosity having low transmissivity and permeability; (iii) Aquifer zones with karst-fracture porosity having high transmissivity and permeability; (iv) Zones with local aquifers with limited extent close to the surface and waterproof at deeper levels practically impermeable; (v) Zones that are neither an aquifer nor a groundwater body.

The area of the watershed is dominated by forests, scrub and open spaces, and the Lake (which accounts for 79% of the total area - see Annex 1: Maps; Land Cover map). Other important land cover classes are arable land and heterogeneous agricultural areas, which make up 15.6% of the area. Of the remaining 5.3% of land, important classes are urban fabric (2%) and pastures (1.9%).

Administratively, the watershed area falls under four municipalities (local government units): Pogradec municipality in Albania; Ohrid, Struga and Debrca municipalities in North Macedonia. The total number of settlements in the basin is 94, of which 25 (26.6%) in Albania (Pogradec municipality) and 69 (73.4%) in North Macedonia. 53 of the 94 settlements (or 56%) have a population of less than 500, and only 5 have a population of more than 2,000 inhabitants. The total population in the basin equals 132,059 inhabitants. Of the total, 39% live in Pogradec municipality, 3% in Debrca, 39% in Ohrid and 19% in Struga.

Tourism is the key economic activity in both countries around Lake Ohrid. The climate, geography and physical variety of the territory, its rich biodiversity, the cultural monuments and historical sites, make the entire watershed an attractive tourism destination. More than 410,000 tourists visited the watershed in 2017 (3 times the local population), and this number is now growing.

Apart from tourism, other important economic activities are fishery, agriculture, trade and services, forestry and hunting. Mining, metal fabrication, wood processing, textile fabrication and other light industries are present on the Albanian side of the basin, mainly around the city of Pogradec. On the North Macedonia side, the industry sector is centered around construction, textile fabrication, and food processing. The local economy on both sides is dominated by small size enterprises.

1.2. The management of Lake Ohrid - policy, institutional, and management frameworks^[1]

At national levels

Through the EU Accession process and the adoption of the EU acquis, the two countries have committed to the management of water bodies in accordance with the -among others- EU Water Framework Directive, the EU Flood Risks Directive, and the Marine Strategy Framework Directive (MSFD). The environment related strategic documents highlight the need to strengthen water management and infrastructure, improve waste management, expand protected areas, rehabilitate polluted areas, promote sustainable land use planning and sustainable use of natural resources, strengthen environmental institutions and increase public participation in environmental decision making.

In Albania, the National Strategy for Development and European Integration serves as the guiding document for sustainable development and is closely aligned with the Sustainable Development Goals (SDGs) principles. In North Macedonia, a number of strategic documents govern sustainable development and set sustainability objectives including the National Development Strategy 2024 -2044 (adopted in 2024).

Regarding waters, primary legislation in Albania has been regulated since 15.11.2012 by Law No. 111/2012 on Integrated Water Resources Management, which was amended in 2018 by Law 6/2018. The Law enables: Protection and improvement of the aquatic environment, surface waters, temporary or permanent, sea/territorial waters, exclusive economic zones, continental shelf, transboundary waters, groundwater, and their status; Security, preservation, development and sustainable and rational use of water resources, necessary for life and for the social and economic development of the country; Equitable distribution of water resources, as intended by their effective management; Protection of water resources from pollution and overuse, and promotion of consumption based on actual needs; Establishment of the institutional framework, at Riparian (central) and local level, required for the implementation of a national policy for the administration and management of water resources to the benefit of communities and according to the country's social and economic interests. Water related priorities are included in the National Strategy for Integrated Water Resource Management (2018). The new Law on Waters in North Macedonia, which is expected to be adopted in 2026, transposes the EU WFD and daughter directives. It is a framework law regulating issues concerning both surface and underground waters and defining management and control of water use, protection and prevention of water contamination, protection against floods, as well as financing of water management activities. The adopted bylaws regulate among others: the conditions under which deviations from aquatic environment quality targets will be allowed; specific conditions for direct and indirect discharging of wastewaters; identification of water bodies with water intended for human consumption etc. Water related priorities are included in the National Strategy for Waters (NWS).

Overall, there are most steps necessary for the alignment of legislation with the acquis on water quality and administrative capacity for water management remains weak. Water quality is a cause for concern and improving water services is a major challenge. In particular, the alignment with the Urban Wastewater Treatment, Drinking Water and Groundwater Directives is insufficient and regulations to strengthen implementation are lacking. The two countries are working towards this end through the development of River Basin Management Plans (RBM plans) for River Basin Management Districts that will address the issues resulting in the failure to reach good ecological status (or potential). In both Albania and North Macedonia, water resources are managed through broader national River Basin Districts for which River Basin Management (RBM) Plans should be developed. ^[21] Consequently, the individual river basin management plans in each country encompass wider administrative or hydrological areas that include but not perfectly

coincide with the exact watershed of Lake Ohrid. In Albania, the Lake Ohrid watershed is covered by the Drini RBM plan. In North Macedonia there is no national RBM plan in place covering the watershed. A transboundary RBM plan in accordance with the EU WFD was prepared for the Lake Ohrid in the framework of the GEF Drin Project (see also below). Nevertheless, its adoption is pending in both countries, as the geographical extent of the Lake Ohrid watershed does not coincide with the River Basin Districts for which management plans are/should be developed according to the Law.

In terms of institutional aspects, responsibilities for water management are shared by several institutions. The institutional setting for water resources management in Albania is centralized and undergoes regular reform but includes nonetheless overlapping responsibilities between central and local level institutions, resulting in a fragmented water sector with inefficient operations. In North Macedonia, the division of responsibilities among different institutions in the water sector needs to be clarified. In the latter, environmental objectives are inadequately defined, subsidiary legislation is missing, and the legislation is deficient in setting an adequate and clear permitting, pricing and inspection system. The institutional capacity of and cooperation among institutions for monitoring and data management need to be strengthened.

For waste management the main challenges are related to poorly defined roles and responsibilities at various levels of authorities, weak enforcement of laws, low level of administrative and institutional capacity to implement existing legislation, inadequate and uncontrolled disposal of waste, and lack of policies and measures for recycling or processing of waste. The legal frameworks are partially aligned with the EU acquis in this field. Considerable efforts are needed to develop and implement strategies and laws on waste management with special attention to clarifying the roles and responsibilities of various institutions, implementation of local waste management plans, strengthening of financial and administrative capacities at the municipal/local level, improving systems of separation of waste collection, increasing the effectiveness of waste management planning, and addressing the management of hazardous waste.

On nature protection, priorities include establishment of the Natura 2000 network, strengthening the capacities of protected area authorities, and implementation of regulations concerning the obligations of hydropower investments to protect nature. Administrative capacities will have to be significantly strengthened, in particular in relation to application of the Habitats and Birds Directives, with respect to assessment, compensatory measures and other specifics with regards to establishment of the Natura 2000 network.

Concerning forest management, even though the countries are rich in forest resources, the increased use of firewood for energy purposes, extensive commercial logging and rampant illegal logging have resulted in forest degradation in recent years. There is a need to strengthen capacities in the field of municipal forest management by involving local communities, owner associations and other stakeholders in the preparation of forest management plans.

Overall, both Albania and North Macedonia have made significant efforts to harmonize their legislation with relevant EU Directives and advanced considerably in the area of environmental management. However, much work still needs to be done to enact subsidiary legislation that both meets EU standards considering country specifics and is compatible with existing institutional roles and responsibilities.

At the transboundary level

The Lake Ohrid sub-basin is part of the extended Drin river basin, shared by Greece, North Macedonia, Albania, Kosovo and Montenegro (the Drin Riparians). The Memorandum of Understanding for the coordinated management of the Drin Basin (Drin MoU) was signed in 2011.

The Drin MoU in its Preamble recognizes: “(...) *the need to coordinate management efforts across the Sub-Basins in this regard, while making use of the existing cooperation schemes that have been established for some of the Sub-Basins, namely Prespa Park Management Committee, Lake Ohrid Watershed Committee, and Lake Skadar-Shkoder Commission*”. It stipulates that nominated representatives of the Lake Ohrid Watershed Committee will be members of the Drin Core Group, the body established to coordinate the implementation of the Drin MoU. As such the Drin MoU does not substitute but enables coordination and cooperation among transboundary authorities established through international agreements. Additional information on the Drin Coordinated action that is the framework established by the countries for the implementation of the Drin MoU and how the proposed Project will be implemented within and interact with this framework is provided in Box 2: The Drin Coordinated Action (Drin CORDA).

The “*Agreement between council of ministers of the Republic of Albania and the Government of Republic of Macedonia for the Protection and Sustainable development of Lake Ohrid and its Watershed*” signed on 17 June 2004 in Skopje (Lake Ohrid Watershed Agreement) and ratified by the Parliaments of both countries in 2005, established the Lake Ohrid Committee. Additional information on the Lake Ohrid Watershed Agreement and how the proposed Project will be implemented within and interact with this framework is provided in Section 2.iv

The fact that water resources in the watershed have been managed in a non-coordinated way at the national level, mainly to satisfy needs for urban, industrial use and the production of energy contributed - also- in a negative way in the transboundary management of the Lake and its resources. Lake Ohrid, along with two artificial reservoirs that exist in the Black Drin River in North Macedonia, are used to regulate the flow of water for hydropower production; the Sateska river was diverted to flow into the Lake Ohrid in the 1960's to maximize energy production, creating externalities to the environment.

A number of non-integrated or even coordinated planning documents at the national and transboundary levels have been developed covering different domains and management aspects; at the transboundary level management plans were developed (mainly) with the support of donors, servicing mostly sectoral priorities rather than integrated management priorities:

- Management plan for World Natural and Cultural heritage of Lake Ohrid region, UNESCO, 2020
- Study for valorization of the Lake Ohrid as a monument of Nature, IUCN ECARO, 2021
- Strategic Recovery Plan for the Natural and Cultural Heritage of the Ohrid Region (2023-2030), 2022

Regarding fisheries, in 2020 Albania and North Macedonia signed the “Agreement on Joint Sustainable Fisheries Management in Lake Ohrid and Greater Prespa” which also envisages the establishment of a Joint Fisheries Committee; bilaterally coordinated catch quotas remain unsettled.

A key document for the integrated management of the Lake is the transboundary Lake Ohrid Watershed Management Plan (LOWMP) developed in 2020 in accordance with the EU Water Framework Directive (WFD) under the coordination of the Lake Ohrid Committee and in full alignment with the Drin Core Group. The LOWMP is only the second transboundary basin management plan in South-East Europe (after the one for the Sava River Basin). The plan was developed under the GEF/UNDP/GWP project “Enabling Transboundary Cooperation and Integrated Water Resources Management in the Extended Drin River Basin” and has been endorsed by both countries. The Lake Ohrid Watershed Management Plan (LOWMP) was developed as part of a demonstration activity under the GEF Drin Project to showcase and extract lessons for the coordinated development of a management plan at the transboundary level in view of the development of a Drin Basin wide Management Plan. The content of the LOWMP was used by Albania and North Macedonia. In the first it was used for the development of a national river basin management plan that cover the part of the Drin basin extending in Albania. In North Macedonia the scientific basis and the

measures are being used for the management of the basin by the Ministry of Environment and Physical Planning. Nevertheless, the adoption and implementation of the transboundary plan was impeded by an administrative and legal discrepancy: the geographical boundaries of the Lake Ohrid sub-basin do not coincide with the official River Basin Districts for which management plans must be developed according to the national laws of both countries.

The data for the development of the LOWMP came from chemical and biological monitoring campaigns, detailed hydrological, biological, chemical pollution, ecological, social and economic analysis etc. following the methodology of the WFD. Furthermore, the development of the LOWMP was based on scientific information developed by the scientific institutions of the two countries and studies carried out over the past decades through initiatives supported by donors.

Box 1: Progress in the implementation of measures under the LOWMP since its adoption

There have been moderate developments since 2019 for the implementation of the LOWMP and its Programme of measures with several important measures either completed, still ongoing or in preparatory phase; this is attributed to reasons related to financial and administrative capacities but also to the fact that the adoption of the transboundary plan was impeded by the administrative and legal discrepancy explained above.

In the field of wastewater management, significant institutional steps were taken with the establishment of the state-owned Public Enterprise for Wastewater management in December 2019. This enabled to introduce a separate tariff policy for households, tourism facilities and small and medium enterprises in Ohrid and Struga based on the national energy methodology.

Partial progress has also been observed in infrastructural development. The second phase of the Racha secondary system has been completed, contributing to the further completion of the secondary sewer system around the Ohrid Lake and its settlements. Meanwhile, the construction of the small-scale wastewater treatment plant for the Trpejca settlement (touristic area) is advancing with the ongoing open tender led by the Ministry of Transport of North Macedonia.

As a part of the wider infrastructure project for wastewater management in Albanian, the section Pogradec III was implemented covering secondary sewer system in the village of Bucimas and surrounding areas, with a milestone to expand the Pogradec water treatment Plant capacity.

Environmental restoration measures have also advanced through the reconstruction of the old riverbed of River Sateska implemented through an UNDP-supported project activity. Enabling the redirection of the river flow towards the river Black Drim is a measure crucial for reducing sediment and nutrient flow into Lake Ohrid.

In the waste management sector, documentation has been prepared for the development and construction of the regional waste management facility for the Southwest region in North Macedonia. In parallel, a new Inter-municipality Council for waste management was established in 2025 and the site for construction of the facility was identified near the village of Novaci outside of the Lake Ohrid watershed. As an additional measure, waste collection services in the urban area and around touristic facilities have been improved through the procurement of the new specialized vehicles and the distribution of waste selection bins for the households and tourism facilities.

Institutional strengthening measures have also been implemented. The Port Authority Ohrid has done some partial management restructuring, received a new patrol boat and provided training to enhance administrative and operational capacity of the institution.

In terms of ecosystem protection measures there are ongoing activities for development of the management plan for protected area St. Naum springs. An inventory of biodiversity and of ecosystem services is currently being conducted under a UNESCO supported project, forming the basis for developing of the management plan in cooperation with the National Park Galicica authorities.

On the Albanian side of the same area rehabilitation project for Drilon –Tushemishte spring was conducted promoting sustainable water passages, ecosystem functionality and tourism sustainability.

In the same segment of ecosystem protection, a preparatory study was completed for the reed belt management. A baseline study assessing the status of the reed belts in the specific parts of the Lake Ohrid shore zone was developed through a Swiss-supported project implemented by a regional NGO and Municipality of Ohrid support. The baseline study serves as the foundation for the future integrated reed belts management plan.

Regarding fisheries management, coordination activities between Albania and North Macedonia begun with the establishment of the Fishery Management Committee. However, further institutional and financial support is required to develop a joint fishery protocol, conduct a joint fish stock assessment, and prepare a comprehensive joint fishery management plan.

Overall, while some steps and actions to advance the implementation of the LOWMP measures have been taken, it remains at a very moderate level and requires further planning, development, and cross border coordination. The proposed Project is going to support and address some of the significant measures which will raise the level of implementation of the LOWMP.

The Riparians are Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention).

1.3. Relevant projects and investments

Water and environment related action in the two countries consist primarily of national level activities driven by the EU approximation processes, as they strive to adhere to EU policy frameworks and standards, address climate change, and improve wastewater treatment and solid waste management. Coordinated investments and cooperative efforts are, however, lacking. Additional information on the Recent and ongoing baseline projects and initiatives relevant to the objectives and activities of the project and how the proposed Project will be built on/contribute to/be benefited from these efforts is provided Table 2: Related projects and initiatives and their relevance to the proposed Project. Annex 3: “Recent and ongoing baseline projects and initiatives relevant to the objectives and activities of the project” provides the objectives/content of each baseline projects and initiatives.

1.4. Identified problems, root causes and barriers that need to be addressed

Information and data from the following initiatives, missions, reports and plans were used as reference material for the identification of the key problems, their root causes and the related barriers that would be addressed by the proposed Project:

- The findings of the “Conservation and Sustainable Use of Biodiversity at Lakes Prespa, Ohrid and Shkodra/Skadar (CSBL)” Technical Assistance Program implemented by GIZ in 2013-2016, and in particular those related to fisheries management in Lake Ohrid.
- The report on Water Quality Monitoring in the Black Drin River, Lake Ohrid and Lake Prespa sub-basins (2017) and the findings of the related surveillance mission implemented under the first GEF/UNDP Drin Project and feeding into the development of the Drin TDA.
- The surveillance monitoring programme that was conducted across three field campaigns (February, April and July 2019) covering physico-chemical, hydro-morphological and biological quality elements in Lake Ohrid and its tributary rivers, implemented in the framework of the GEF Drin Project and supporting the development of the LOWMP.
- The Lake Ohrid Watershed Management Plan (LOWMP; 2020)
- The Study for the valorization of the Lake Ohrid as a monument of Nature, IUCN ECARO, 2021
- The Strategic Recovery Plan for the Natural and Cultural Heritage of the Ohrid Region (2023-2030) prepared by the governments of Albania and North Macedonia in 2022
- The joint State of Conservation Report, submitted by the Republics of North Macedonia and Albania to the UNESCO World Heritage Centre in February 2024

- The joint World Heritage Centre, ICOMOS, and IUCN Reactive Monitoring Mission to the Natural and Cultural Heritage of the Ohrid Region which took place from 25 to 29 March 2024 (hereafter “Joint Mission Report”).
- Information and data provided by Albania’s Water Resources Management Agency (AMBU) through email exchange.

A detailed scientific and causal chain analysis to identify the pressures and their drivers was carried out for the preparation of the LOWMP, using data from (i) a surveillance monitoring programme that was conducted across three field campaigns (February, April and July 2019) covering physico-chemical, hydro-morphological and biological quality elements in Lake Ohrid and its tributary rivers (ii) the Drin Basin TDA/SAP analysis; (ii) information from a number of scientific analysis in the LOW that were carried out in the past. Six (6) Significant Water Management Issues (SWMIs)^{[3]³} were identified through the LOWMP.

These are discussed in the sections below supplementing the LOWMP information with data and information from additional (newer) sources; overall, the LOWMP findings align with the findings of analysis documents developed within the framework of the UNESCO World Heritage sites Cultural designation/reevaluation process and the Drin TDA

1.1.1. Point-source and diffuse water pollution

The most significant and pervasive environmental pressure identified is anthropogenic eutrophication driven by phosphorus loading. Although Lake Ohrid remains broadly oligotrophic, phosphorus concentrations have risen fourfold over the past century due to increasing human activity. Further there is localized nutrient pollution threatening near-shore habitats that offer spawning grounds to ichthyofauna. Two nearshore stations -L-Tushemisht and L-Pogradec- already show degraded trophic status, classified as eutrophic and hypereutrophic respectively, with the Pogradec area at risk of severe algal blooms. River systems near urban and agricultural areas, particularly the Velgoshka and Cherava rivers, recorded strong to critical levels of faecal pollution. The Studenchishki Canal, a heavily modified waterbody, consistently received the worst ecological classifications across biological and physicochemical measures, reflecting the combined impacts of urban waste and disrupted habitat. River Cerave was similarly heavily impacted by municipal waste discharges. Map 11, Ecological Status/Potential of Surface Water Bodies available in Annex 1 (Maps) depicts the ecological status/potential of key surface water bodies in the Lake Ohrid Watershed, as per the WFD classification.

The single largest source of phosphorus input is untreated sewage from a lakeside population estimated at approximately 200,000 people. The situation is exacerbated by seasonal tourist activity that multiplies the population well beyond the capacity of existing infrastructure. About 70% of tourists in North Macedonia visit the Lake Ohrid region during the summer period (May through September), and over 85% of the overnights take place during the June-October period. Comparable disaggregated tourism data for the Albanian side were not available. However, the basin-wide tourism pattern is clearly similarly seasonal.

According to the LOWMP, the overall ratio of households connected to public wastewater collection system for the watershed is 72%, with the remaining 28% assumed to use septic tanks for discharge of wastewater. However, the ratios of population connected to central system varies from 11% in Debrca municipality, 61% in Pogradec, and roughly 84% for Ohrid and Struga municipalities.

There are two central wastewater treatment plants in the LOW: one in Vranishta near Struga in North Macedonia and one in Tushemisht in Albania. In addition, there are several decentralized small-scale

WWTPs on the North Macedonian part of the basin targeting mainly local tourist facilities. Map 7 available in Annex 1 (Maps) depicts (i) the key settlements in LOW along with daily tourists, (ii) the wastewater treatment plants and related existing and planned collectors, (iii) the IPPC sites as per the Industrial Emissions Directive, and (iv) the BOD concentrations for different areas of the LOW.

Agricultural runoff from cultivated land and pastures is the second major source of pollution due to fertilizers and herbicides. The total agriculture area treated with fertilizers in the LOW is estimated at 9,960 ha, which is less than 50% of the total agriculture area. The estimated total annual quantities of applied fertilizers are 3,950 tons, with average input of 400 kg of mineral fertilizers per hectare in one vegetation season. These quantities of fertilizers, due to the closeness to the surface or ground water resources and the sensitivity of the ecosystem can represent a serious direct threat to water quality of Lake Ohrid. It is estimated that pesticides are used on a total area of 7,408 ha, with a total input of 45,400 liters of pesticides, or on average 6.12 l/ha. The littoral zone and areas near river inflows, particularly Sateska, Koselska, Cerava, Grasnica, Pogradec, St. Naum, and Tushemisht, appear to be more impacted by these pressures, acting as pollution hotspots. Maps 8 and 9 available in Annex 1 (Maps) depict the fertiliser and pesticide use respectively in different areas of the LOW.

A critical and transboundary dimension of the eutrophication threat is the underground hydraulic connection between Lake Prespa and Lake Ohrid. Lake Prespa, which contributes approximately 50% of Lake Ohrid's water input via karst aquifers, carries total phosphorus concentrations approximately seven times higher than those in Lake Ohrid. Deterioration of Lake Prespa therefore represents a serious and growing indirect threat to Lake Ohrid's long-term water quality - one that is difficult to manage within the existing bilateral governance framework.

Diffuse pollution from aquaculture is minimal; there are 2 restocking fish facilities on the lake.

The most common industrial activities on the Albanian part of the basin include iron-nickel exploitation and chromium mining, while on the North Macedonia part there is construction industry (concrete production), food processing (poultry farms), wholesale and retail trade, and transport. Such operations create important pressure on the basin's water bodies caused by the emissions of various pollutants. Industrial waste, wastewater and storm water discharges from industrial facilities are among the contributors to the degradation of the aquatic ecosystems. Further, the Lake is also under pressure of metal pollution near the sites of abandoned old chromium, iron, nickel and coal mines outside Pogradec in Albania.

Regarding heavy metals pollution, mercury concentrations exceeded maximum allowable concentrations (MAC) at several river stations, including Cerave, Sateska 2, and Studenchishki Kanal, linked to industrial activity. Lead also exceeded standards at station R-Sateska 2 (see map 5 and 7 in Annex 1: Maps).

1.1.2. Potentially unsustainable water quantity/abstractions

The joint State of Conservation Report presents hydrological monitoring data spanning 1951-2022 showing that the agreed permitted water level range -between 693.10 and 693.75 meters above sea level- has been repeatedly breached on the lower end. The data shows that from October onwards each year, the lake level consistently approaches or reaches the permitted minimum, and on several occasions has fallen below it entirely. The Report raises concerns related to the use of Lake Ohrid's water for hydroelectric energy production by ESM, the North Macedonian state energy company. The report notes that the barrier at Struga could theoretically provide some protection against excessive discharge if ESM managed water releases responsibly, but in practice the lake's water is described as subject to 'constant pressure for energy production'. Lake Ohrid is the most upstream -natural- reservoir in the Drin cascade of reservoirs used for hydroelectric production.

Regarding abstractions for water supply, according to the LOWMP the total population connected to public water supply systems is estimated at 115,842 (88% of the total population), or 56,372 household connections. In addition, roughly 3,700 residents in the basin use local community-based water supply system, and some 12,500 (9% of the total) have a self-organized water supply. The number of commercial and industry connections to the public water supply system varies by municipality, with a peak of 2,300 connections in Ohrid, indicating the relatively large number of tourist facilities in the municipality. There is however a high non-revenue water ratio of 59%, indicating significant inefficiencies in utilities' operation, thus overuse of water resources.

Regarding abstractions for agriculture, according to the TDA for the Drin basin, the theoretical water needs for irrigation in the Ohrid sub-basin is 91% of total water demand. Further, the LOWMP notes that the total area of irrigated arable land on both sides of the lake is estimated on 3,545 ha, of which almost 76.1% is in North Macedonia. Abstraction of surface water is not a common practice in the basin; most irrigation comes from groundwater. Almost 53% of the irrigated area in North Macedonia and 83% in Albania is irrigated with furrows, while a smaller part is irrigated through sprinkler irrigation.

Regarding abstractions for the industrial sector, the industrial activities mentioned above use both drinking water (via a public water supply system) and technical water (via separate water supply systems from reservoirs or rivers, or from own wells) in their operation processes. There is no precise data on the used amount of technical water from the wells, rivers or reservoirs.

In terms of potential impacts of climate change on water resources, analysis under the Drin TDA examined 2 scenarios, both assuming that hydrological conditions affecting surface water and groundwater availability reflect the changes to the climate that may be expected in the year 2050. Scenario 1 assumed that there will be no change in the water demand if compared to current ones, except in the irrigation sector where consumptive water use requirements are assumed to change due to rainfall and evaporation changes because of climate change. Scenario 2 assumed that consumptive water demands (water supply, industry, agriculture) will also change in the future as a result of the development of economic activities and expansion of water supply networks.

The findings of the analysis for the Lake Ohrid and Black Drin sub-basins are depicted in Table 1 below.

Table 1: estimated water stress (ratio between water demand and water availability) under each scenario for each month in 2050.

Scenario 1.

Sub-basins	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Lake Ohrid	1.20%	0.95%	0.96%	0.81%	0.87%	2.84%	3.70%	8.49%	24.82%	35.31%	19.08%	7.48%	8.89%
Black Drin River	1.37%	0.78%	0.59%	0.64%	0.67%	0.80%	1.83%	5.48%	22.60%	42.98%	34.30%	7.49%	6.42%

Scenario 2.

Sub-basins	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Lake Ohrid	1.80%	1.43%	1.44%	1.23%	1.31%	4.31%	5.66%	13.30%	42.51%	64.32%	31.64%	11.66%	13.96%
Black Drin River	2.07%	1.17%	0.89%	0.97%	1.01%	1.21%	2.76%	8.46%	38.21%	82.13%	62.10%	11.68%	9.94%

1.1.3. Physical condition of the water environment, i.e. flow alteration and diversion of rivers' flow into the lake

A key issue related to the physical condition of Lake Ohrid is the diversion (physical alteration) of the flow of the Sateska river through a 7-km artificial channel constructed in 1961/62 that diverted the flow of the river from the Black Drin to Lake Ohrid. The purpose of the diversion was to protect the regulated flow of Black Drin River from sediments coming from Sateska, to use the lake volume for balancing the Sateska water flow for electricity production on the Drin cascades in North Macedonia, and for flood protection.

According to bathymetric analysis of the lake bottom from 1994, the estimated transported sediment volume equals 48,760 m³/year. This constant, long-term input of suspended matter has profoundly transformed the natural heterogeneity of the bottom into uniform sandy habitat, which further resulted in the destruction of aquatic vegetation and fauna that is commonly present in other littoral parts of the lake. Further, the inflow of Sateska river has been the main source of phosphorus in the lake, estimated at 39% of the total phosphorus inflow from tributaries, and at 29% of the total nitrogen inflow (the second largest source of nitrogen). In addition, the inflow of Sateska river represents a 'corridor' through which invasive species arrive in the lake.

In response, the Sateska river has been the subject of a redirection efforts/activities in the framework of different projects. While the riverbed works have been completed, the Joint Mission Report found that the project didn't resolve the continued inflow of sediments and pollutants during significant weather events. It is estimated that the implementation of reforestation and other erosion-control measures on the upper section of the Sateska watershed will enable full control of up to Q50-year flow in Sateska of 180 m³/sec, whereas in the case of such an event 100 m³/sec will surge directly to Black Drin and the remaining 80 m³/sec to Lake Ohrid. This solution will prevent practically all current discharge of sediment and nutrients (phosphorus and nitrogen) in the lake, without affecting the annual hydropower generation on the cascade reservoirs/HPPs along the Drin River.

1.1.4. Alien species

The Joint Mission Report identifies rainbow trout and Chinese carp as invasive species posing a significant challenge to the endemic aquatic biodiversity of the Drilon Springs area in Albania, which is described as one of the most important locations for the conservation of endemic aquatic fauna in the entire lake system. The report notes that informal fish farms in the area had been a vector for the introduction of these species, and that their removal - achieved within the Drilon-Tushemisht Waterscape Park project - had eliminated a major threat to the biodiversity system, though the Mission remained concerned about the proximity of ongoing development to the springs and the fragility of the ecosystem.

The State of Conservation Report notes damage to Black Pine forests within the Pogradec Protected Landscape caused by the Pine Processionary caterpillar, and damage to shrubland caused by the "Chinese Butterfly" (Box Tree Moth), which has spread widely across Europe in recent years.

Overall, alien species constitute a recognized but inadequately monitored and managed threat. Given the lake's extraordinary endemism (including over 200 unique species of plants and animals, 17 endemic fish species including two species of trout), this gap between the recognized threat and the documented management response is notable.

1.1.5. Unsustainable management of fisheries

Fish resources in Lake Ohrid are under significant and multiple pressures -eutrophication, illegal fishing, ghost nets, potential invasive species from aquaculture- in the absence of adequate coordination that will introduce catch quotas or joint monitoring programmes.

The lake contains significant number of endemic species, with nearest neighbors in Pliocene. The fish fauna is represented with 17 autochthonous and 6 allochthonous species. The quality and the economic value of the fish populations of Lake Ohrid is significant. As a result of inadequate protection and unsustainable fishing practices, the two endemic Salmonid species of the lake (Ohrid Trout and Belvica) are at threat of possible irreversible loss of their populations. The Ohrid trout population has decreased by 15% in the latest 5-year period, and the Catch Per Unit Effort (CPUE) for trout is now 0.018, a fraction of the 0.2 recorded in the early 20th century.

The Joint Mission Report identifies illegal salmon fishing in Albania as a specific and serious threat that could have cascading effects on other vulnerable species including common carp. The report notes that coordinated fishing quotas for salmonid species -identified as crucial to preserving these fish- had still not been established between the two countries, creating a regulatory vacuum filled by persistent illegal fishing.

A specific and previously underreported illegal or irresponsible fishing practice is the abandonment of fishing gear on the natural spawning grounds of Lake Ohrid trout. The State of Conservation Report notes that these nets continue to catch fish, birds, crustaceans and other animals long after abandonment, and that the presence of decaying organic matter deters female trout from using affected spawning grounds.

Both littoral countries have policies and plans for fishery management on Lake Ohrid, but these are not harmonized in many aspects. This concerns the allowable fishing quotas per fish species, minimum allowable catch size of the fishes, period of bans during natural reproduction, fishing gears, number of fishers for commercial fishing etc. The number of allowed fishermen in Albanian part of the lake is 208 whilst on North Macedonia 57.

Fish farming within the lake itself is considered a resolved or partially resolved problem.

1.1.6. Other anthropogenic activities (boating)

Motorized watercraft is identified in both the State of Conservation and the Joint Mission Reports as a broader environmental management issue of concern. Cruising and boating are important recreational and tourism activities in Lake Ohrid and commercial boating is an economic activity of importance for the local population. There are 2,268 recreation and fishing boats registered in the North Macedonian part, of which 500-600 are in regular use. Data on the boats in use on the Albanian side of the lake is not available; it is estimated, however, that there are not more than 200 small boats used for recreation and fishing. Cruising and boating can lead to localized water problems including due to discharge from onboard toilets, potential engine-oil spillage, and stress and disruption of the fish ecology especially in the spawning grounds during the spawning period.

The key challenge related to cruising and boating is the lack of proper infrastructure for docking and servicing watercrafts. On the North Macedonian part of the lake there are only two ports that can be used for docking of passenger boats. In addition, there are some 15 docking stations along the shoreline that are used by private recreation and fishing boats. Thus, most of the boats currently in use are forced to use the AWB Studenchishki canal as a docking station which is not equipped with even elementary infrastructure and facilities for refueling and servicing of boats.

Both the State of Conservation and the Joint Mission Reports anticipate amendments to the Law on Inland Navigation in North Macedonia with the specific aim of controlling the registration, use and maintenance of speedboats and jet-skis. The proposed changes would introduce more restrictive provisions regarding the registration of watercraft, particularly in relation to the permitted age of manufacture, a provision aimed at reducing the number and environmental impact of older, more polluting vessels on the lake.

1.5. Stakeholders, Private Sector, and Local Actors

Stakeholder Analysis developed under the new GEF/UNDP Drin SAP Project map in detail the stakeholders in Albania and North Macedonia as well as in the Lake Ohrid Basin. It provides details on the roles and stakes in the management of the basin as well as the power, influence etc. for each stakeholder. During the Inception Phase the project will take stock of this Stakeholders' Analysis developed under the new GEF/UNDP Drin SAP Project, update and enrich this as appropriate of the needs of the proposed project. A brief list of key stakeholders, including their role in the project is presented in Section 7; an initial mapping of stakeholders in the Lake Ohrid Basin is given in Annex 4.

1.6. Barriers to be addressed

Barriers (in the context of this PIF) are systemic obstacles and constraints that hinder the effective implementation of the programme of measures of the LOWMP and prevent the resolution of priority transboundary environmental problems (SWMI) identified therein. Overall, these barriers fall into 4 categories:

Barrier 1: Knowledge and Data - inadequate and fragmented scientific baselines and monitoring systems

Currently, monitoring, data management, and analysis are fragmented across institutions and borders. Environmental monitoring is conducted without harmonized methodologies or seasonal schedules, and data is not systematically shared. This leads to critical gaps in understanding the lake's hydro-dynamics, climate vulnerability, and ecosystems, which prevents a systematic-over-time and harmonized, lake-wide environmental analysis and ecological assessment. Important gaps include the lack of calibrated modeling tools for scenario analysis and forecasting -taking into consideration climate change- as well as the absence of a transboundary water balance, not allowing assessments of climate change impacts and human-induced water stress. Additionally, joint fish stock assessments are lacking, making it difficult to establish a shared scientific baseline for vulnerable endemic and commercial species. Reference conditions for ecological classification under the EU Water Framework Directive have not yet been defined. Overall, these issues impede the development of science-based management and policy instruments, hindering informed planning, management, and decision-making at both national and transboundary levels.

Barrier 2: Governance, Legal, and Policy – sectoral planning, uncoordinated regulatory regimes and disjointed planning frameworks

Uncoordinated regulatory regimes and disjointed planning frameworks across the border are compounded by sectoral planning at the national level. This fragmentation leads to regulatory divergence and administrative mismatches between the two countries, a challenge exacerbated by the fact that the EU Water Framework Directive (WFD) cannot be effectively implemented without coordination/cooperation at the transboundary level. Overall, governance and policy gaps result in parallel, asymmetrical conservation efforts, making it impossible to effectively control priority pressures. Important gaps include the lack of coordinated transboundary planning documents for domains that are critical to the sustainable management of the lake's ecosystem and local livelihoods, specifically water management, protected areas, fisheries, and tourism. Furthermore, there is an absence of a comprehensive planning framework anchored in formal local management processes, such as spatial planning, which is necessary to coherently integrate the goals of the different sectoral plans at both the national and transboundary levels. Additionally, binding legal and operational protocols to the Lake Ohrid Agreement covering monitoring, fisheries, and tourism have not yet been established. Without these protocols, the transboundary joint body lacks the empowered mandate required to facilitate the implementation of the respective planning instruments.

Barrier 3: Operational and Structural - limited investment, market activation, and applied knowledge

The Lake Ohrid currently faces pressures and subsequent effects driven by nutrient and toxic pollution, soil erosion, and boating activities. While there are some ongoing remediation actions to address these threats, these remain inadequate and/or slow in pace considering the sensitivity of the Lake's ecosystem. This shortfall is driven by a combination of limited financial resources for major structural investments, coupled with the inadequate action of individual resource users due to the non-activation of markets. Furthermore, the broader transition toward cost-effective technologies and Nature-based Solutions (NbS) is hindered by a lack of applied knowledge and local technical experience. Important gaps include the lack of catalytic baseline action for essential structural infrastructure, such as sustainable port and waterway facilities to manage boating impacts, as well as funding deficits that prevent comprehensive erosion control in highly vulnerable catchments like the Sateska river. Additionally, there is an absence of market-driven mechanisms to empower and incentivize individual users -such as farmers and municipalities- to adopt sustainable technologies like precision agriculture or localized wastewater treatment. Overall, without the technical knowledge to apply NbS, the market activation to sustain them, and the targeted action to trigger major infrastructural investments, physical drivers of degradation persist.

Barrier 4: Social and Capacities - inadequate science-policy dialogue, weak institutional capacities, and gender-balanced governance

Opportunities for structured science-policy dialogue and targeted capacity building remain limited within the Lake Ohrid basin, particularly at the interface between technical experts, planners, and decision-makers. Scientific and administrative bodies, such as the Ohrid Hydrobiological Institute and local municipalities, face constraints in capacities that hinder joint decision-making and the enforcement of management tools. This institutional deficit is exacerbated by uneven public awareness of basin-scale risks and climate impacts, alongside a lack of gender-responsive engagement strategies. The absence of systematic mechanisms for regional knowledge sharing and strategic communication prevents the uptake of sustainable practices among stakeholders, women and men resources users and those engaged in farming, fishing, and tourism. Without embedding inclusive governance and intercultural perspectives into the design of actions for addressing the SWMIs, transboundary management efforts risk being perceived as external impositions, ultimately eroding local ownership and long-term sustainability.

2. Project Fit within the Current Landscape

The project is designed (i) taking into consideration the national priorities; (ii) building on previous GEF and non-GEF investments; (iii) building on the regional cooperation process for the management of the Drin Basin; (iv) using the lessons learned from previous GEF projects and the official process for the management of the basin.

(i) Alignment with national priorities: The national policy documents and development plans have been taken into consideration so as the project aligns with these; the list of Strategic Documents in the two countries is given in Annex 2.

(ii) Building on previous GEF and non-GEF investments: The project will capitalize on the results achieved by previous and ongoing projects and initiatives in the basin - both regional and those implemented in Albania and North Macedonia. The ongoing baseline projects and initiatives relevant to the objectives and activities of the project in Annex 3.

Table 2: Related projects and initiatives and their relevance to the proposed Project

Project/Initiative[4] ⁴	How the proposed Project will build on / be benefited from these efforts
<i>GEF/UNDP/GWP Drin Project (2025-2029) “Implementing the Strategic Action Programme of the Drin Basin to Strengthen Transboundary Cooperation and Enable Integrated Natural Resources Management” and the foundational GEF/UNDP/GWP Drin Project (2016-2021) “Enabling transboundary cooperation and integrated water resources management in the extended Drin River Basin”</i>	The proposed Lake Ohrid project is fundamentally intertwined with the overarching Drin basin initiatives, acting as a targeted, sub-basin operationalization of their broader regional frameworks while servicing the Lake Ohrid Watershed Agreement which is the primary international legal framework for the management of the basin. It builds directly upon the scientific baseline, the established processes, and the initial Lake Ohrid Watershed Management Plan (LOWMP) delivered by the foundational Drin project. Looking ahead, the Lake Ohrid project will operate in synergy with the new Drin SAP project (2025-2029) by using its basin-wide tools -such as hydrological and climate-informed models, standardized environmental monitoring protocols, and the Drin Information Management System- and downscaling them for localized application. Governance-wise, the projects share the same institutional architecture, with the Lake Ohrid Committee working in tandem with the Drin Core Group to ensure that all local ecosystem restoration, pollution control, and policy alignment efforts in the Ohrid watershed directly contribute to the sustainable management of the extended Drin River Basin.
<i>Integrated climate-resilient transboundary flood risk management in the Drin River basin in the Western Balkans (UNDP, 2019-2023, Adaptation Fund - 9,9m euros; Albania, North Macedonia, Montenegro)</i>	The proposed project will leverage the foundations established by the initiatives in terms of technical cooperation on hydrometeorological monitoring and assessments. Further, by building upon the flood hazard and risk mapping, integrated flood risk management strategies and enhanced capacities at regional, national, and local levels, the project can further strengthen resilience among vulnerable communities. The knowledge, best practices, and technical tools developed through this initiative will inform the project implementation.
<i>Adaptation to Climate Change through Transboundary Flood Risk Management in the Western Balkans (GIZ 2012 -2022)</i>	

<i>SEE Nexus Project (Austrian Development Agency, 1,5m, executed by GWP-Med in partnership with UNECE; focus on Albania and Drin Basin - ended in August 2022)</i>	The proposed Lake Ohrid Project will further advance the integration of the Nexus approach -linking water, energy, food, and environment policies- across the Drin Basin. By making use of and leveraging the technical Nexus Assessments looking at the hydropower production/flood risk management interface, the proposed project will be able to promote more effective, cross-sectoral natural resources management at the Lake Ohrid level. The technical work will be the work under Component 1 and the development of the plans under Component 2. Additionally, the project will benefit from the lessons learned and stakeholder engagement mechanisms pioneered under the SEE Nexus initiative, ensuring that multi-sectoral perspectives are embedded in the planning and implementation of activities within the Lake Ohrid Basin.
<i>Nature-based solutions for resilient societies in the Western Balkans (ADAPT) (SIDA, 2019-2022, 2,5m euros)</i>	The proposed project will benefit directly from the foundational knowledge and best practices established by the ADAPT initiative regarding the implementation of nature-based solutions (NbS) for climate resilience and environmental restoration in the Western Balkans. Specifically, the Lake Ohrid project will build on ADAPT's regional experiences to inform the design and deployment of its own localized NbS interventions, such as the construction of engineered wetlands for rural wastewater treatment (Output 3.1.1) and the implementation of reforestation and nature-based erosion control measures in the vulnerable Sateska basin (Output 3.1.3).
<i>South-East European Multi-Hazard Early Warning Advisory System (US AID, 2020-2022, \$2,4m)</i>	The proposed project will directly benefit from the technical frameworks and data-sharing capabilities established by the initiative. Specifically, the project will leverage the initiative's advancements in regional numerical weather prediction, hydrological modeling, and its Common Information Platform to inform the development and calibration of its own new hydrological and hydraulic models for climate-informed water balance and disaster risk management, including flood forecasting (Output 1.1.2). Furthermore, SEE-MHEWS-A's centralized observational database and experience in fostering open regional meteorological and hydrological data exchange can be used in support of the Lake Ohrid project in designing and operationalizing robust transboundary monitoring programs and information exchange protocols (Output 1.1.3)
<i>Generating momentum on water and forests in the Balkans - Balkans (DBU 2019-2021, 125 k euro)</i>	The proposed project will benefit directly from the initiative's practical methodologies for integrating forestry and water management. Specifically, the Lake Ohrid project will leverage the initiative's tested GIS models and decision-support systems for identifying erosion risk areas to inform the technical design of its own reforestation and nature-based erosion control measures in the vulnerable Sateska river basin (Output 3.1.3). Furthermore, the Lake Ohrid project will build upon the initiative's comprehensive gap analysis of national forest and water legislation vis-à-vis EU directives to support the development of the updated, WFD-compliant Lake Ohrid Watershed Management Plan (Output 2.1.3), and can use its piloted training modules to deliver targeted capacity building for local authorities on sustainable, ecosystem-based management (Output 4.1.2).
<i>Prespa Ohrid Nature Trust (2017 - open ended, KfW Germany, and other donors)</i>	The proposed project will directly benefit from the Prespa Ohrid Nature Trust (PONT) and its established, long-term conservation financing for protected area management authorities and environmental NGOs in the region. By leveraging the baseline of operational capacity and cross-border collaboration already sustained by PONT, the Lake Ohrid project will be able to more effectively

	harmonize the disparate management, spatial planning, and zoning tools of adjacent protected areas across Albania and North Macedonia (Output 2.1.2). Additionally, PONT's ongoing support for local biodiversity monitoring, protected area planning, and civil society engagement will be used for/taken into consideration for the implementation of the project's WFD-aligned transboundary environmental monitoring programme (Output 1.1.3) and its targeted capacity development programs for local conservation authorities and institutions (Output 4.1.2)
<i>LD North Macedonia: Promoting Sustainable Land Management (SLM) Through Strengthening Legal and Institutional Framework, Capacity Building and Restoration of Most Vulnerable Mountain Landscapes (UNEP 2021-2025, \$3.6m)</i>	The proposed project will directly benefit from the enhanced national legal and institutional frameworks established by the North Macedonia SLM initiative, particularly its development of the first national law and strategy for soil protection. The project will leverage these strengthened national capacities to ensure that soil conservation and land degradation neutrality priorities are properly integrated into the updated Lake Ohrid Watershed Management Plan (Output 2.1.3) and the overarching transboundary Master Plan (Output 2.1.4). Furthermore, the Lake Ohrid project will build upon the SLM initiative's practical experiences in restoring vulnerable mountain landscapes to guide the technical design and execution of its own targeted, on-the-ground interventions. This is especially relevant for the reforestation and nature-based erosion control measures planned for the vulnerable Sateska river basin (Output 3.1.3) and the deployment of precision agriculture demonstrations (Output 3.1.2).
<i>IW Regional (on-going): Implementation of the SAP of the Dinaric Karst Aquifer System: improving groundwater governance and sustainability of related ecosystems (UNDP, UNECSO IHP, US\$ 5,145,000; Albania, Bosnia & Herzegovina, Montenegro)</i>	The proposed GEF Lake Ohrid project will benefit significantly from the scientific knowledge and transboundary governance frameworks established by the DIKTAS initiative regarding the highly vulnerable Dinaric Karst Aquifer System. Because approximately 50% of Lake Ohrid's water input comes from neighbouring Lake Prespa via complex underground karst aquifers, understanding these groundwater dynamics is critical. The Lake Ohrid project will leverage DIKTAS's regional karst data and groundwater assessment methodologies to inform the development of its own new hydrological model and precise water balance (Output 1.1.2). Furthermore, DIKTAS's established protocols for transboundary groundwater monitoring will guide the design of the Lake Ohrid's WFD-aligned transboundary monitoring program (Output 1.1.3) and ensure that karst aquifer protection strategies are effectively integrated into the updated Lake Ohrid Watershed Management Plan (Output 2.1.3).
<i>EUSIWM / EU support to integrated water management - EC funds (Austrian Dev. Agency -2018-2023 1,6m euros; Albania)</i>	The proposed GEF Lake Ohrid project will build upon the legal, institutional, and technical foundations laid by the initiative. The project will leverage national planning methodologies and legal alignments to develop the updated, WFD-compliant Lake Ohrid Watershed Management Plan, ensuring it can be officially adopted as a recognized addendum to the broader Drin river basin plan in Albania (Output 2.1.3). Furthermore, EUSIWM drafted proposals for enhanced national water monitoring systems and reviewed related institutional responsibilities. The Lake Ohrid project will utilize these strengthened national frameworks to design its own WFD-aligned transboundary operational monitoring program (Output 1.1.3) and to conduct the investigative monitoring required to establish ecological reference conditions (Output 1.1.1).

<i>Transboundary Biosphere Reserve Prespa (Germany, 2018-2021, 2m euros)</i>	The proposed project will directly benefit from the biodiversity conservation and capacity-building foundations established by the initiative, which focused on reducing pressures on natural resources and improving protected area management in the Albanian part of the Ohrid-Prespa region. By leveraging the initiative's efforts to strengthen the management of the biosphere reserve, the Lake Ohrid project will be better equipped to successfully harmonize the disparate management, spatial planning, and zoning tools for adjacent protected areas across both countries (Output 2.1.2). Furthermore, the baseline of enhanced central and local institutional capacities for environmental monitoring developed through the Prespa initiative will directly support the Lake Ohrid project in operationalizing its own WFD-aligned transboundary monitoring program (Output 1.1.3).
<i>Preparation and revision of the National Waste Planning documents (EU, 0,4m euros) 2022-2025</i>	The proposed project will directly benefit from the initiative, which established North Macedonia's new National Waste Management Strategy, Regional Waste Management Plans, and National Sludge Management Strategy. The Lake Ohrid project will leverage these EU-compliant national frameworks to properly integrate solid waste and wastewater sludge management priorities into the comprehensive, transboundary Master Plan for Lake Ohrid (Output 2.1.4). Furthermore, these updated national guidelines will inform the technical compliance and execution of the project's localized pollution-control interventions, ensuring that byproducts from the new engineered wetlands for rural wastewater treatment (Output 3.1.1) and the solid waste reception facilities planned for Ohrid town's sustainable port infrastructure (Output 3.1.4) strictly adhere to the modernized national waste and environmental standards.
<i>Improved Implementation of the EU Floods Directive through Harmonization of National Legislation and Preparation of Flood Risk Management Plans (EU, 2,5m euros) 2021-2025</i>	The proposed will directly benefit from the regulatory, institutional, and technical foundations established by the initiative in North Macedonia, which is actively developing national flood risk assessments, hazard maps, and early warning implementation plans. Specifically, the project will leverage these newly harmonized national methodologies to ensure that its own localized hydrological and hydraulic models designed to support precise water balance, disaster risk management, and flood forecasting (Output 1.1.2) are fully compliant with EU standards. Furthermore, the enhanced baseline of institutional capabilities generated by the EU initiative will directly support the Lake Ohrid project's targeted training programs for local authorities (Output 4.1.2) and facilitate the integration of flood risk and climate change considerations into the updated, WFD-compliant Lake Ohrid Watershed Management Plan (Output 2.1.3).
<i>Improving capacities for NATURA 2000 and CITES (EU, 2,7m euro) 2021-2024</i>	The proposed will benefit from the enhanced administrative capacities, biodiversity data, and legislative frameworks developed by the initiative in North Macedonia. Specifically, the Lake Ohrid project will leverage the initiative's field research, Standard Data Forms for potential Natura 2000 sites, and National Reference Lists for habitats and species to effectively harmonize the disparate management, spatial planning, and zoning tools for adjacent protected areas across the transboundary basin in accordance with EU Natura 2000 standards (Output 2.1.2). Furthermore, the strengthened baseline of national institutional capacities for enforcing EU nature protection legislation will directly support the Lake Ohrid project in operationalizing its own WFD-aligned transboundary biological monitoring programs (Output 1.1.3).

<i>Building capacity towards sustainable human capital development in North Macedonia (GCF, 0,8m USD, GIZ) 2022-</i>	The proposed project will build on the capacity-building frameworks and evidence-based approaches developed by the GCF/GIZ initiative to engage socially vulnerable and marginalized groups in the climate change agenda. Specifically, the Lake Ohrid project will leverage the initiative's strategies for promoting green jobs and integrating climate change into the education and labour sectors to inform its own gender-responsive stakeholder engagement plan, ensuring the inclusive participation of vulnerable local communities in basin governance (Output 4.1.1). Furthermore, these established models for sustainable human capital development will enhance the design and delivery of the project's targeted capacity development and learning programmes for local authorities (Output 4.1.2), while ensuring that the social and economic priorities of marginalized groups are equitably addressed within the comprehensive, transboundary Master Plan for Lake Ohrid (Output 2.1.4).
<i>Strengthening country's capacities for climate change adaptation and mitigation and finalization of Country Work Programme for the Republic of North Macedonia (GCF, 0,6m USD, FAO) 2019-2022</i>	The proposed GEF Lake Ohrid project will build upon the enhanced national capacities for climate change adaptation and private sector engagement established by the GCF/FAO readiness initiative. Specifically, the project will leverage this strengthened baseline of climate resilience to inform the development and operationalization of its own hydrological and hydraulic models, which will incorporate climate change projections into a precise, updated water balance for the basin (Output 1.1.2). Furthermore, the GCF project's successful methods for engaging diverse national stakeholders and the private sector in climate action will be used by the project in its effort to implement an inclusive, gender-responsive stakeholder engagement and strategic communication plan (Output 4.1.1).
<i>The GEF/UNDP 'Umbrella Programme to Support Development of National Biodiversity Finance Plans' (BIOFIN; 2024 - 2028).</i>	The project will benefit from the systemic financial frameworks and resource mobilization strategies developed by the BIOFIN umbrella programme, particularly through North Macedonia's ongoing development of a National Biodiversity Finance Plan. The project can leverage BIOFIN's identified innovative financing mechanisms to secure the long-term financial sustainability and basin-wide upscaling of its targeted pollution-control and ecosystem restoration demonstrations, which include engineered wetlands, precision agriculture, and reforestation efforts.

(iii) **Regional cooperation:** The project will be implemented within the framework of the Drin Coordinated Action for the implementation of the Drin MoU, ensuring coordination and synergy with regional efforts for the sustainable management of the Drin River Basin. This institutional framework is being used to coordinate actions related to the management of the sub-basins.

Box 2: The Drin Coordinated Action (Drin CORDA)

The Drin Coordinated Action (Drin CORDA) is the official cooperation process established to implement the Shared Vision for the Sustainable Management of the Drin Basin, which was formalized by the signing of the Drin Memorandum of Understanding (Drin MoU) on November 25, 2011, in Tirana. The primary objective of the MoU and the Drin CORDA process is to promote joint action for the coordinated and integrated management of shared water resources, safeguard ecosystems, and promote sustainable development across the extended Drin Basin.

To operationalize the Drin MoU, a formal institutional structure was established in 2012, comprising the following key bodies:

- The Meeting of the Parties: A meeting of the Ministers responsible for water and the environment from the Drin Riparians to review progress in the implementation of the MoU.
- The Drin Core Group (DCG): The central body mandated by the Ministers to coordinate actions for the MoU's implementation. It comprises officially nominated representatives from the competent ministries of the Drin Riparians and UNECE. To secure coordination at all sub-basin levels, representatives of existing joint commissions-specifically the Lake Ohrid Watershed Committee and the Prespa Park Management Committee-are also integrated as members of the DCG.
- Expert Working Groups (EWGs): Four specialized groups assist the DCG in its work: the Water Framework Directive (WFD) Implementation EWG, the Monitoring and Information Exchange EWG, the Biodiversity and Ecosystems EWG; the Floods EWG.
- The Secretariat: The Global Water Partnership-Mediterranean (GWP-Med) serves by appointment of the Ministries as the Secretariat, providing ongoing technical and administrative support to the DCG.

Implementation of the GEF Lake Ohrid Project within the Drin CORDA Framework

The Drin Memorandum of Understanding (Drin MoU) provides the overarching political framework and Shared Vision for the Drin Coordinated Action (Drin CORDA). To operationalize this vision, the GEF Drin SAP project assists the Riparians in implementing the endorsed Strategic Action Programme (SAP). The proposed GEF Lake Ohrid project is designed to be mutually reinforced with the Drin CORDA framework and the GEF Drin SAP project. It will support Albania and North Macedonia's commitments under the Drin MoU process and implement priority measures from the endorsed Drin SAP. The project will be implemented within this framework through several key operational, institutional, and technical alignments:

- **Integrated Governance and Institutional Coordination:** The Drin MoU explicitly recognizes the need to coordinate management efforts across the sub-basins by utilizing existing cooperation schemes, such as the Lake Ohrid Watershed Committee. Because nominated representatives of the Lake Ohrid Committee are official members of the Drin Core Group (DCG) the project's efforts to develop capacities for the operation of the Lake Ohrid Committee will feed into the basin-wide decision-making of the DCG while the latter will strengthen and reinforce the Project's efforts to strengthen Ohrid's institutional capacities. Furthermore, as the Drin SAP project assists in negotiating the evolution of the DCG into a formal, legally binding 'Drin Commission', the Lake Ohrid project will operate in coordination with this elevated political framework. This ensures that the governance of Lake Ohrid feeds into and remains aligned with the broader Drin River Basin management, which is particularly critical for coordinating hydropower generation and water flow regulations across the sub-basins; the latter is critical for the sustainable protection of the Lake Ohrid's ecosystem.
- **Execution and Secretariat Synergy:** Both projects will be executed by the Global Water Partnership - Mediterranean (GWP-Med) guaranteeing avoidance of duplication and creation of synergies.
- **Technical and Scientific Integration:** The project will actively leverage and downscale technical tools developed for the extended Drin Basin, specifically those advanced by the GEF Drin SAP project: (i) *Hydrological Modelling:* The project will downscale and refine the comprehensive hydrological model that is developed by the GEF Drin SAP project to ensure scientific robustness specifically for the Ohrid Watershed (ii) *Monitoring and Data Exchange:* While the Drin SAP project assists the Drin MoU framework by designing a multi-purpose transboundary monitoring program for the entire basin, the Lake Ohrid project will scale and refine the portion of the broader Drin Monitoring Programme that

applies directly to the Ohrid watershed to meet the needs related to the implementation of the Lake Ohrid Watershed Agreement and the LWMP. Crucially, the transboundary monitoring data generated by the project will be exchanged and housed using the established Drin Information Management System (Drin IMS), which is being upgraded by the Drin SAP project.

- **On-the-Ground SAP Targets and Scaling Nature-Based Solutions:** The localized investments of the Lake Ohrid project-such as engineered wetlands, precision agriculture, and nature-based solutions for erosion control-will directly contribute to the Drin basin-wide pollution reduction targets supported by the Drin SAP project.
- **Gender Community of Practice:** The Lake Ohrid project will develop a gender action plan and lead to the establishment of groups that will participate and contribute in the Gender Community of Practice established by the Drin SAP project, ensuring women's empowerment is mainstreamed in sub-basin natural resource governance and aligned with the basin-wide effort.

(iv) Building on lessons learned.

Lessons were drawn for the design of the proposed project from the implementation of the Drin Project as these are presented in its Terminal Evaluation and the Final Report, and experiences from GEF projects such as the TDPS Phase I, and large African transboundary basins.

a. Project Design Simplicity & Alignment

- Keep design simple and rational: A project design with clear, achievable objectives is an essential prerequisite for a successful implementation.
- Align with national priorities: Transboundary outcomes and priorities must be aligned with management priorities of the countries.

b. Strong Governance & Institutional Frameworks

- Empower regional authorities: implementation of strategic action programmes and programmes of measures succeeds only with strong, sustained governance arrangements and empowered local authorities.
- Utilize joint management bodies: Using an existing joint management body (such as the Drin Core Group and the Lake Ohrid Committee) as the project's steering committee gives participating countries control, increases mutual trust, and guarantees project ownership.

c. Stakeholder Engagement & Gender Mainstreaming

- Foster community appropriation: Achieving lasting impact depends on the community's appropriation of results. This requires strong, transparent communication campaigns and well-developed management information systems to build trust among all actors.
- Integrate gender approaches early: Gender strategies are most effective when they are developed in the initial stages of the project, allowing them to properly guide gender mainstreaming throughout the entire implementation process.

d. Demonstration Projects & Livelihoods

- Test and show visible results: Implementing pilot/demonstration activities is highly valuable for testing novel approaches, raising capacity, and maintaining stakeholder and political interest through tangible results.
- Link ecosystems to livelihoods: Demonstration projects must link ecosystem management directly to livelihoods (e.g., sustainable fisheries, circular economy) to generate ownership. Exceeding expectations through these demonstrations can improve the project's catalytic and replication effects.

The 2004 Agreement between Albania and North Macedonia established the Lake Ohrid Committee (LOC) as a vehicle for transboundary cooperation. The implementation of this agreement has been hindered by shortages in human and financial capacities. As a result, there have been asymmetrical, parallel national conservation efforts rather than a unified approach. This cooperation between Albania and North Macedonia has yielded several lessons regarding the specific challenges and requirements of transboundary basin management:

- a. **Elevate Joint Governance and Enforceability.** Experience indicates that effective transboundary management requires binding protocols to implement framework agreements and protect the lake's ecosystem. Strengthening the Lake Ohrid Committee will enable both countries to turn their shared commitment into coordinated, practical actions throughout the basin.
- b. **Harmonize Institutional Frameworks.** Isolated national investments in sectors like wastewater, protected areas, or fisheries fail to deliver their intended impact unless they are embedded within a coherent, enforceable transboundary strategy. Aligning national legal and regulatory structures will streamline inter-agency coordination, facilitating a smooth transition from parallel national initiatives to unified, transboundary conservation strategies.
- c. **Mobilize Resources.** Securing sustained financial and human resources will ensure that local and national authorities have the capacity needed to effectively manage shared environmental priorities.
- d. **Capitalize on Science.** Absence of reliable data and information affect negatively decision making. Leveraging the foundation of existing scientific institutions -such as the Hydrobiological Institute- will provide the basis for sustained data flows to inform decision-making.

The text below indicates how the project integrated the combined lessons presented above, in its design:

- Elevating Joint Governance and Enforceability.

Recognizing that the implementation of strategic action programmes succeeds only with strong, sustained governance arrangements and empowered regional authorities, the project deliberately utilizes the existing Lake Ohrid Committee (LOC) along with the mandated ministries to steer the initiative and strongly engage the municipalities, thereby guaranteeing participating countries' full control and mutual trust. The LOC's engagement is expected to develop its capacities in its role for the implementation of the Lake Ohrid Agreement. To overcome the limitation related to transboundary cooperation on priority issues, the project is designed to back related mechanisms with binding operational agreements. Specifically, under Output 2.1.5, it facilitates the development and adoption of formal Protocols to the Lake Ohrid Agreement (covering monitoring and information exchange, fisheries management, and tourism) to equip the Committee to translate shared political commitments into fully integrated, operational action.

- Harmonizing Institutional and Policy Frameworks and Project Alignment.

Understanding that isolated national investments in sectors like wastewater, protected areas, or fisheries fail to deliver their intended impact unless they are embedded within a coherent, enforceable transboundary strategy, the project addresses regulatory discrepancies by prioritizing the alignment of legal and spatial planning frameworks. A central feature of the project's design is the formulation of an updated, WFD-compliant Lake Ohrid Management Plan (Output 2.1.3) alongside a unified, transboundary Master Plan (Output 2.1.4), harmonized management tools for adjacent protected areas (Output 2.1.2) and a joint Fishery Management Plan (Output 2.1.2). These overarching instruments will streamline inter-agency coordination, facilitating a smooth transition from asymmetrical, parallel national conservation efforts to unified, transboundary strategies. Recognizing that transboundary outcomes must align with national management priorities to maintain stakeholder interest and increase the likelihood of replication,

the project deliberately anchors its transboundary framework to the existing priorities of both nations by structuring the new transboundary management plan to be officially adopted as a legally recognized addendum to the national Drin and Black Drin River basin management plans.

- Capitalizing on Science for Evidence-Based Policy.

Recognizing that effective management and sustained data flows rely on a shared scientific foundation, the project will systematically leverage the expertise of established scientific institutions. Through surveillance and investigative monitoring to define ecological reference conditions (Output 1.1.1), climate-informed hydrological and hydraulic models (Output 1.1.2), a transboundary operational monitoring program (Output 1.1.3), and a joint fish stock assessment (Output 1.1.4), the project will enable that future bilateral policies are driven by science.

- Linking Ecosystems to Livelihoods via High-Impact Demonstrations and Mobilizing Resources.

Demonstration activities are highly valuable because they test novel approaches, raise capacity, and maintain stakeholder and political interest through tangible results, hence the project integrates on-the-ground, nature-based interventions. By piloting engineered wetlands for rural wastewater treatment (Output 3.1.1), precision agriculture (Output 3.1.2), nature-based solutions for erosion control in the Sateska basin (Output 3.1.3), and developing investment documentation for sustainable port infrastructure (Output 3.1.4), the project links ecosystem management directly to local livelihoods, such as farming and tourism. Acknowledging that this link to livelihoods generates essential community ownership, these interventions are explicitly designed to create scalable models that will mobilize the dedicated financial resources from national budgets, donors, and banks/the private sector needed to move from theory to long-term implementation.

- Fostering Inclusivity and Gender Mainstreaming.

Acknowledging that achieving lasting impact depends heavily on the community's appropriation of results, the project embeds a cross-cutting stakeholder engagement strategy to build ownership and trust among all actors. To operationalize this, the project will establish a two-way participatory stakeholder feedback system, an Outreach and Communications Strategy, and a dedicated Gender Community of Practice (Output 4.1.1). Recognizing that gender strategies are highly effective when developed in the early stages, a dedicated Gender Action Plan is established during the PPG phase to properly guide gender mainstreaming throughout the entire implementation process, supported by gender-sensitive capacity building and training for authorities (Outputs 3.1.5 and 4.1.2).

3. Project Selection and Enduring Outcomes

The project has a strong basis as it builds up and extent the knowledge acquired through the LOWMP assisting in its implementation. It comprises several outputs and activities -among those that are described in the LOWMP- that are of priority. These were selected in consultation with authorities from the two littoral countries; some are set to address pressures that are critical for the ecosystems and livelihoods; the rest are meant to create the framework for transboundary and integrated action. As such the project is designed to follow a systemic approach for long term action -that will extend beyond its duration- to address the drivers of environmental degradation that result to multiple and interlinked pressures.

Options up to now, that were supported through national and donor financing comprised isolated investments in wastewater, fisheries or protected area management, that have not yielded the level of impact intended through this project as they haven't addressed the underlying transboundary and national level governance and planning deficiencies. Rather than focusing solely on e.g. water quality or

biodiversity, it addresses the lake's environmental, social, and economic dimensions, by contrast, ensures that interventions are embedded in a coherent and enforceable transboundary strategy.

The durability of the project's outcomes is ensured through multiple mechanisms: scientifically informed decision making mechanisms at the national at transboundary levels; legal and policy strengthening and harmonization across borders in the fields of protected areas, fisheries and tourism, domains that are critical for the society and the economy; institutional capacity building of national and municipal actors; addressing priority pressures for the ecosystem; active engagement of communities in implementation; mechanisms for the engagement of the society including the private sector. Further the project's additionality lies in aligning broader Drin-basin cooperation and planning frameworks with Lake Ohrid basin-specific package of science/knowledge, governance/management, and capacity/implementation support.

Financially, the project is designed to be catalytic, aiming at creating the basis and conditions for additional investments both from the national authorities and the private sector (tourism, agriculture, fisheries, boating). It should serve as a model for replication across other transboundary lake systems in the region. The commitment by the Government of North Macedonia to allocate USD 1 million of its GEF STAR resources to this project is a strong signal of political ownership and prioritization. Potential co-financing from municipal, national, and EU IPA sources is expected to reinforce the project's long-term impact

[1] A list and key related Strategic Documents in North Macedonia and Albania is provided in Annex

2. file:///C:/Users/gulsah.isik/Downloads/PIMS_10345_PIF%20Lake%20Ohrid-GEF-8-MSP_20260526_Clean.docx - ftnref2

[2] In Albania, there are six regional river basins, each overseen by local river basin authorities. The Lake Ohrid watershed falls under the overarching Drin Basin, a transboundary system that connects the region's major lakes (Ohrid, Prespa, and Skadar/Shkodër) and rivers (Drin and Buna/Bojana). In North Macedonia, the Lake Ohrid watershed is designated as a sub-basin of the national Crn Drim River Basin District. Within the country's internal framework of 16 designated water management areas, the lake's territory is covered by the Ohrid-Struga water-management unit.

[3] A per EU WFD; These can be seen as the equivalent of transboundary issues/problems identified through a Transboundary Diagnostic Analysis.

[4] The list of the Projects/Initiatives is also given in Annex 3 in a table where the objective of each Project/Initiative is described.

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

1. Theory of Change

1.1. Project Goal (Impact)

To protect and sustainably manage the Lake Ohrid watershed by improving its governance, strengthening transboundary cooperation and accelerating the adoption of measures to alleviate pressures on ecosystems.

1.2. Rationale and value-added of the Project Goal

Pursuing the project outcomes outlined below will contribute towards ensuring a mechanism to bridge and harmonize related national efforts, aligning legal and institutional frameworks, and coordinating

infrastructure investments across the two countries in line with the LOWMP. The absence of the Project's interventions could result in duplicated efforts, wasted resources, and missed opportunities for synergies. Further, the above-mentioned SWMIs would be likely to intensify, leading to the continued degradation of the lake's water quality and ecological integrity. This degradation would jeopardize the lake's unique biodiversity, including its endemic species, and negatively impact on the local economy and society, which heavily relies on tourism and fisheries.

1.3. Theory of Change

The Theory of Change for the proposed project builds directly on the findings and recommendations of the LOWMP as well as those of the Joint Mission Report. It takes into consideration national priorities ensuring that the project is aligned with these, and the results of national efforts and regional GEF and non-GEF investments; these constitute enablers for the achievement of the project's objective. Further the strategic logic of the project builds on the lessons drawn (see Section 2.iv) from the implementation of the Drin Project as these are presented in its Terminal Evaluation and the Final Report, and experiences from GEF projects and other GEF interventions as well as on the lessons drawn from efforts of the two countries for the management of the Lake Ohrid.

The project's components have been designed to create the enabling conditions to effectively advance the management of the 6 SWMIs identified in the LOWMP, by addressing the identified systemic barriers:

1. Knowledge and Data - inadequate and fragmented scientific baselines and monitoring systems
2. Governance, Legal, and Policy - sectoral planning, uncoordinated regulatory regimes and disjointed planning frameworks
3. Operational and Structural - limited investment, market activation, and applied knowledge
4. Social and Capacities - inadequate science-policy dialogue, weak institutional capacities, and gender-balanced governance

The project's four Outcomes are designed as an integrated and sequenced strategy in which each Outcome creates the conditions for the others. The logic of the design is that governance reform without an evidence base is ineffective; physical interventions without governance reform are unsustainable; both require institutional capacity to implement; and none will achieve lasting impact without stakeholder ownership. The following section sets out how each Outcome addresses the barrier categories identified above and, through doing so, creates the conditions for progress on the six SWMIs.

To move from the current baseline to the envisioned long-term impact of a protected, climate-resilient, and sustainably managed Lake Ohrid basin, the project relies on four mutually reinforcing pathways:

- Pathway 1: Science-to-Policy and Management Cooperation (Component/Outcome 1)
 - *Addressing Barrier 1 (Knowledge and Data):* To overcome inadequate and fragmented scientific baselines, this pathway improves the availability, quality, and usability of transboundary data. By performing investigative monitoring to set WFD-aligned ecological reference conditions, developing climate-informed hydrological models, establishing operational transboundary monitoring, and completing a joint fish stock assessment, the project generates the unified scientific evidence base required. This ensures that the governance and planning reforms in Pathway 2 are rooted in science.
- Pathway 2: Transboundary Governance and Alignment (Component/Outcome 2)
 - *Addressing Barrier 2 (Governance, Legal, and Policy):* To overcome institutional fragmentation and disjointed planning frameworks, this pathway translates the improved knowledge from Component 1

into harmonized policy and legal instruments. It will deliver a Joint Fishery Management Plan, harmonize the management tools of adjacent protected areas, and produce an updated, WFD-compliant Lake Ohrid Management Plan (LOWMP) integrated with a transboundary Master Plan. Crucially, by adopting formal Protocols to the Lake Ohrid Agreement covering monitoring, fisheries, and tourism, this pathway elevates joint governance from planning to enforceable legal mandates.

- Pathway 3: Demonstration-to-Scaling and Resilience (Component/Outcome 3)
 - *Addressing Barrier 3 (Operational and Structural): To overcome limited investments and the non-activation of markets for physical remediation, this pathway operationalizes priority measures through on-the-ground action. It deploys nature-based solutions for wastewater, implements precision agriculture demonstrations, implements nature-based solutions for erosion control in the vulnerable Sateska basin, and develops investment documentation for sustainable port infrastructure.. Paired with enhanced enforcement capacities and equipment to combat illegal fishing, this pathway directly reduces toxic/nutrient pollution and ecosystem degradation while generating the proof-of-concept needed to mobilize future market investments.*
- Pathway 4: Social Inclusion and Institutional Capacity (Component/Outcome 4)
 - *Addressing Barrier 4 (Social and Capacity): To overcome weak institutional capacities, exclusionary governance, and low awareness and ownership, this pathway ensures that project results are institutionalized and sustained. By executing activities designed through a cohesive set of knowledge management approach, communication plan, targeted capacity-building programs for local authorities, and structured knowledge exchange via IW: LEARN, this pathway fosters a culture of shared stewardship. It ensures that local resource users and institutions have the necessary skills and ownership to apply and enforce the tools developed in the preceding pathways.*

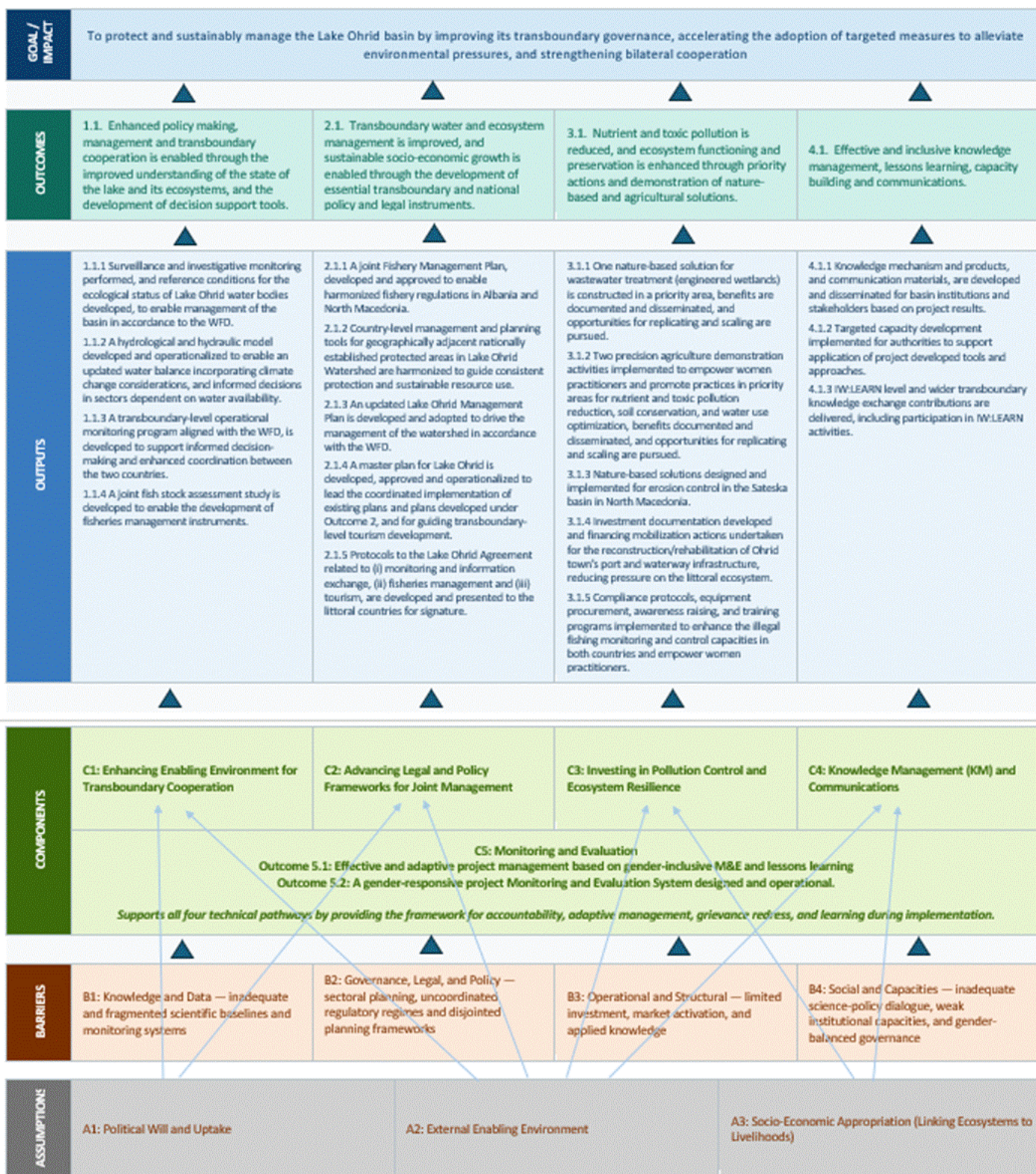
These four technical pathways are supported by a fifth, cross-cutting Monitoring and Evaluation component, which provides the framework for accountability, adaptive management, grievance redress, and learning during implementation.

Enabling Assumptions (Enablers for Transformative Scaling)

The successful achievement of the immediate project outcomes and the transition toward the long-term project objective depends on several wider systemic enablers and assumptions holding true:

- **Political Will and Uptake:** The improved scientific evidence generated (Component 1) will be actively utilized by national and bilateral decision-makers to enact the necessary regulatory reforms and protocols (Component 2), demonstrating a sustained political commitment to the Lake Ohrid Agreement.
- **Socio-Economic Appropriation (Linking Ecosystems to Livelihoods):** Key stakeholders across the agriculture, fisheries, and tourism sectors are willing to engage in sustainable practices because the high-impact demonstrations (Component 3) will successfully produce visible socio-economic benefits, thereby creating the necessary incentives for broader community replication and market activation.
- **External Enabling Environment:** Ongoing national EU approximation processes, combined with alignment to existing regional frameworks (such as the Drin Coordinated Action), will provide a favourable and stable institutional climate, shielding the transboundary cooperation from potential national-level administrative or political shifts.

Theory of Change Diagram



2. Project Components, Outcomes and Outputs

The project includes four interconnected components designed to achieve an equivalent number of technical outcomes supported by a fifth M&E component.

Component 1: Enhancing Enabling Environment for Transboundary Cooperation [\[1\]⁵](#)

Component 1 focuses on building a strong knowledge base and developing the necessary tools to support informed decision-making at the national and transboundary levels for the sustainable management of Lake Ohrid. Building on existing national datasets and past regional work (monitoring expeditions and scientific analysis done in the framework of a number of donor financed projects – see Table 2), the component will address critical gaps that currently limit the ability of the two countries to develop scientifically informed decisions on and perform actions for the management of the resources in the basin, such as (i) characterization of and agreed reference conditions for the basin in accordance to the WFD, that hinders the implementation of this critical piece of legislation at the national and transboundary levels (ii) knowledge of/ and agreement on the water balance informed by advanced modeling tools taking into account climate change considerations, that will allow the authorities to plan effectively for sectoral activities depended on the availability of water (iii) an agreed transboundary monitoring program that will enable the generation and sharing of information in scientifically sound and homogenous manner (iv) an agreed and science based assessment of the fisheries that will enable the coordinated management of the resource.

This Component and Outcome will improve the availability, quality and usability of technical information and translate scientific evidence into policy/management-relevant analysis. The respective outputs are designed to contribute to and provide the basis for the transboundary and national policy and legal instruments that will be developed under Component 2.

Outcome 1.1: Enhanced policy making, management and transboundary cooperation is enabled through the improved understanding of the state of the lake and its ecosystems, and the development of decision support tools.

Indicative indicator 1: framework tools, developed and endorsed by national and transboundary level authorities (to be adjusted during PPG phase)

Output 1.1.1 Surveillance and investigative monitoring performed, and reference conditions for the ecological status of Lake Ohrid water bodies developed, to enable management of the basin in accordance to the WFD.

Establishing reference conditions is essential for implementing the Water Framework Directive (WFD) at the national level, determining ecological status, and meeting environmental objectives. Designated national institutions are responsible for monitoring these conditions. Although Albania is developing a national-level basin management plan that includes the Ohrid Basin, reference conditions have not yet been established. In transboundary basins, establishing reference conditions requires science-based consensus. The project will carry out surveillance and investigative monitoring at locations in the basin identified as being at risk or as recipients of priority substance discharges. Scientific data and the LOWMP highlight a significant rise in phosphorus concentrations due to anthropogenic inputs. Consequently, phosphorus will be a key focus of investigative monitoring in Lake Ohrid for the establishment of related reference conditions. Tentative activities include: (i) identification of reference areas representing 'minimally disturbed' ecological states; (ii) facilitation of transboundary technical/scientific coordination to ensure a consensus between Albanian and North Macedonian national institutions on sampling and analysis methodologies; (iii) deployment of surveillance and investigative monitoring at both the reference sites and identified 'at-risk' points; (iv) analysis to quantify impacts; (v) establishment of ecological status thresholds for classifications in line with WFD requirements; (vi) integration of these established reference conditions into the National Basin Management Plans.

Output 1.1.2 A hydrological and a hydraulic model developed and operationalized to enable an updated water balance incorporating climate change considerations, and informed decisions in sectors depended on water availability.

Water availability in the lake and the basin is intrinsically linked to critical freshwater-supported ecosystems and livelihoods while Lake Ohrid acts as a natural reservoir within a cascade system, regulating flows to downstream hydropower generation facilities. However, decisions in sectors reliant on water have not been taking into consideration water availability. Against this background, and considering the basin's unique hydrogeological features, its link with Lake Prespa, and outflow into the Drin River, creating a water balance for Lake Ohrid is a crucial management tool. The GEF Drin SAP project aims to build a detailed hydrological model for the Drin basin, including the Ohrid Watershed. The proposed project will refine and downscale this model as required for scientific robustness, enabling precise calculation of the water balance for Lake Ohrid. This is deemed necessary for the Ohrid watershed as its management is governed by an international legal agreement. The hydraulic model that will be developed will be utilized by national institutions to support disaster risk management activities. National institutions will use the hydraulic model to support disaster risk management and will also guide its development, since they will be its primary users. This approach will facilitate the implementation of national and transboundary management plans and inform policy-making and management decisions for the basin. Tentative activities include: (i) the collection and homogenization of hydrological and meteorological data; (ii) downscaling and refinement of the GEF Drin SAP hydrological model to ensure scientific robustness specifically for the Ohrid Watershed; (iii) the calculation of the lake's water balance, accounting for its role as a natural reservoir for downstream hydropower and ecosystem support; (v) development and calibration of a hydraulic model (vi) validation workshops and training for these institutions -ensuring participation of both women and men technical staff- to utilize the model for disaster risk management and flood forecasting; (vi) formal adoption of the model outcomes by national institutions.

Output 1.1.3. A transboundary level operational monitoring program aligned with the WFD, is developed to support informed decision-making and enhanced coordination between the two countries.

This output will facilitate the improvement of data reliability, comparability, and accessibility, thereby supporting collaborative analysis and evidence-based management of shared water resources and freshwater-dependent ecosystems. It will establish a foundation for informed decision-making, increased trust among participating countries, and enhanced coordination. Operational transboundary level monitoring (hydrological, chemical, biological etc.) encompassing monitoring locations, requirements, and procedures etc. will be developed and presented for adoption to the two countries and by the Lake Ohrid Committee. This will include the development of standardized institutional protocols to ensure consistent long-term monitoring by designated national authorities of the state of the system against the reference conditions to be established under Output 1.1.1. A transboundary monitoring programme covering the Drin Basin is going to be developed through the GEF Drin project for the needs of the management of the Drin Basin. The proposed project will make use of the results and work with the two littoral countries to refine, downscale and detail to the extent necessary the Drin Monitoring Programme. Tentative activities include: (i) Update of the GEF Drin SAP project review of existing national monitoring networks; (ii) Study on the optimization of national monitoring networks and refinement of the part of the Drin Monitoring Programme to apply to the Ohrid watershed; (iii) Development of a transboundary monitoring programme including an agreement on harmonized monitoring protocols and monitoring network; (iv) Enhancement of information exchange including through Lake Ohrid specific information exchange protocols; (vi) Incorporation of gender-disaggregated data collection where relevant to support equitable policy responses across user groups. The Drin Information Management System will be used for the exchange of data.

Output 1.1.4. A joint fish stock assessment study is developed to enable the development of fisheries management instruments.

The development of a joint fish stock assessment study is a priority action for informed decision-making in the management of fisheries. Its significance is high, given the critical role fisheries play in both the Lake's ecosystem and the regional socio-economy (see also Output 2.1.1). However, adequate transboundary fish stock assessments -specifically detailing catch structure, size, weight, and other relevant metrics- are currently lacking, and national fishery master plans are not coordinated between Albania and North Macedonia. To address this gap, a fish stock assessment will be developed. This assessment will provide a scientific baseline to inform policy-making and management decisions regarding fishing quotas, minimal catchable sizes, gear regulations, spawning season bans etc. National institutions and protected area authorities will utilize these findings to support sustainable fisheries management and biodiversity conservation activities. This Output should be viewed as part of a coordinated effort to manage fisheries at both national and transboundary levels, together with Output 2.1.1, ultimately contributing to the development of a Joint Fishery Management Plan. Tentative activities include: (i) compilation and reviewing of existing information such as historical catch records, biological studies, and previous monitoring results and identification of data gaps; (ii) field surveys to gather fish related data using standardized methods; (iii) processing and standardizing collected data; (iv) development and application of appropriate stock assessment models to estimate biomass, fishing mortality, recruitment, and trends; (v) draw conclusions on the current stock status of assessed species.

Component 2: Advancing Legal and Policy Frameworks for Joint Management [\[2\]](#)⁶

The Lake Ohrid basin operates as a 'semi-closed' system with a long water retention time and a controlled outflow, hence any environmental disturbance can have profound, systemic effects on its highly sensitive aquatic ecosystem. On the other hand, these distinct boundaries make it easier to successfully apply integrated management, provided that the tailored and scaled management tools and bilateral governance structures are in place. This Component and Outcome aim to operationalize and update key policy, management and governance instruments for the integrated and coordinated transboundary management of the Lake Ohrid watershed.

Outcome 2.1: Transboundary water and ecosystem management is improved, and sustainable socio-economic growth is enabled through the development of essential transboundary and national policy and legal instruments.

Indicative indicator 2: Key transboundary instruments are submitted to the littoral countries for signature (to be adjusted during PPG phase)

Output 2.1.1 A joint Fishery Management Plan, developed and approved to enable harmonized fishery regulations in Albania and North Macedonia.

This Output will build on the work done under Output 1.1.4. on the development of a joint fish stock assessment and will deliver a management tool of importance, especially given: (i) Lake Ohrid's status as a globally significant biodiversity hotspot harboring numerous endemic species; (ii) that the fisheries sector is an essential socio-economic activity in the basin, providing critical income and livelihoods for local populations. A Joint Fishery Management Plan for Lake Ohrid will be developed following a participatory and inclusive consultation process, with the participation of national level scientific institutes -such as the Ohrid Hydrobiological Institute- guided by the mandated national authorities and be presented for approval to the Lake Ohrid Committee. This Plan will address among others (the list is indicative): fish stock and fisheries monitoring; invasive alien species management; new fishing techniques for bleak

exploitation; establishment of a common minimal catchable size (fishing gears) and fishing quotas for both countries; fish management practices; volume (capacity) and standards of trout hatcheries etc. The management plan will be used for the development of regulatory documents in both countries with regard to fisheries management; this is deemed necessary as fisheries are currently governed by disjointed national regulations that require harmonization through international cooperation. Tentative activities include: (i) formation of a technical working group guided by mandated national authorities and including national-level scientific institutes, such as the Ohrid Hydrobiological Institute; (ii) reviewing of national fishery regulations; (iii) drafting of the Joint Fishery Management Plan using building upon the joint fish stock assessment; (iv) conducting a participatory and inclusive consultation process in both countries to validate the proposed management measures; (v) approval of the plan by the responsible authorities; (vi) development of harmonized regulatory documents regarding fisheries management for both Albania and North Macedonia.

Output 2.1.2. Country level management and planning tools for geographically adjacent nationally established protected areas in the Lake Ohrid Watershed are harmonized to guide consistent protection and sustainable resource use.

Harmonizing management and planning tools for adjacent protected areas is essential given the Lake Ohrid watershed's global biodiversity value and its status as a transboundary UNESCO World Heritage Site. Nearly half of the basin is designated as protected area, providing critical ecosystem services and sustaining the region's nature-based tourism. However, Albania and North Macedonia currently apply different protection levels, management regimes, and spatial plans, resulting in fragmented governance and weakened conservation outcomes. The project will work to harmonize these disparate frameworks towards a unified conservation approach. The harmonized tools will support national institutions and protected area authorities in ensuring consistent protection and sustainable resource use aligned with EU Natura 2000 standards and informing joint policy and enforcement efforts. Tentative activities include: (i) reviewing of existing management plans, spatial data, and conservation objectives to identify regulatory gaps and discrepancies; (ii) establishment of joint technical groups -ensuring gender balance- comprising representatives from protected area authorities and competent national institutions; (iii) collaborative work to reach an agreement on the harmonization of the zoning systems and related regulations across borders; (iv) development of coordinated enforcement measures and standardized protocols for monitoring compliance; and (v) organization of transboundary -inclusive- consultation workshops to validate the harmonized management tools with local stakeholders.

Output 2.1.3. An updated Lake Ohrid Management Plan is developed and adopted to drive the management of the watershed in accordance with the WFD.

Although the original LOWMP informed national management, its formal transboundary adoption was hindered because Lake Ohrid's sub-basin boundaries do not align with the countries' official River Basin Districts. Leveraging baseline developments since 2019 and new scientific data from Component 1, the project will develop an updated, EU WFD-compliant LOWMP to serve as a unified transboundary framework with revised environmental objectives, timelines, and measures. This is deemed necessary for the Lake Ohrid watershed to establish a unified transboundary framework featuring updated environmental objectives, precise timelines to achieve them, and an updated Program of Measures. The updated plan will be utilized by national institutions and the Lake Ohrid Committee to guide integrated water resources and ecosystem management across the basin. To overcome previous legal barriers, the updated LOWMP will be -also- deliberately structured for formal adoption as an addendum to the national Drin (Albania) and Black Drin (North Macedonia) river basin management plans. The first activity under

this Output will be the development of a roadmap agreed by the Project and the mandated authorities in the two littoral countries regarding official adoption of the plan as a legally recognized addendum to the Drin and Black Drin river basin management plans. This will operationalise the intention and interest of the two countries to develop a transboundary LOWMP. Provided that this plan is agreed, tentative activities under this Output include: (i) reviewing of the implementation status of previous LOWMP measures and moderate management developments since 2019; (ii) integration of new scientific data, environmental monitoring, and technical tools generated under Component 1 to update the characterization report; (iii) drafting of the updated LOWMP in accordance with WFD; (iv) organization of gender balanced stakeholder consultations and public participation events to ensure inclusive planning and validation of the updated measures; (v) formal presentation of the updated Plan for approval to the Lake Ohrid Committee; (vi) facilitation of the plan's official adoption by the respective national authorities as a legally recognized addendum to the Drin and Black Drin river basin management plans.

Output 2.1.4. A master plan for Lake Ohrid is developed, approved and operationalized to lead the coordinated implementation of existing plans and plans developed under Outcome 2, and for guiding transboundary level tourism development.

Currently, the two countries manage river basins, fisheries, protected areas, cultural heritage, and tourism through separate, uncoordinated plans. A gender sensitive Master Plan for Lake Ohrid will be developed to address the fragmented, sector-based governance; it will integrate environmental, social, and economic priorities and serve as the overarching framework that consolidates and operationalizes the existing instruments as well as the transboundary instruments generated through the project. Building on the scientific data, basin assessments, and monitoring systems developed under Component 1, the plan will guide coordinated implementation of both the harmonized Joint Fishery Management Plan (Output 2.1.1) and the updated, WFD-compliant Lake Ohrid Management Plan (Output 2.1.3). While tourism drives the local economy, it also creates severe environmental pressures through seasonal resource demand, waste generation, and coastal urbanization. To address this, a carrying capacity study will inform a new transboundary Tourism Development Plan. The Tourism Development Plan will be submitted along with the Master Plan to the Lake Ohrid Committee and municipalities for adoption, to inform legally binding spatial plans and local development strategies, as appropriate under national law. Tentative activities under this Output include: (i) development of a tourism carrying capacity study; (ii) development of a transboundary -inclusive- Tourism Development Plan; (iii) drafting of a gender-sensitive Master Plan that integrates environmental, social, and economic priorities; (iv) organization of inclusive, gender-balanced working groups and consultations driven by the basin's municipalities to finalise the Plan; (iv) discussion of the Master Plan and the Tourism Development Plan by the Lake Ohrid Committee and local municipalities and approval; (v) facilitation of the legal and administrative integration of the Master Plan into the legally binding spatial plans and local developmental strategies of the respective municipalities in Albania and North Macedonia.

2.1.5. Protocols to the Lake Ohrid Agreement related to (i) monitoring and information exchange, (ii) fisheries management and (iii) tourism, are developed and presented to the littoral countries for signature.

The development of formal Protocols to the Lake Ohrid Agreement will be a key step toward strengthening bilateral cooperation and institutionalizing joint basin governance of domains that are critical for the Lake basin system, through binding legal instruments. Building on the scientific foundations established under Component 1 and the evidence-based management tools developed under Component 2, including the harmonized Joint Fishery Management Plan (Output 2.1.1), the updated WFD-compliant Lake Ohrid Management Plan (Output 2.1.3), and the overarching Master Plan (Output 2.1.4), the project will prepare three targeted Protocols on monitoring and information exchange, fisheries management, and tourism. These instruments will consolidate the project's scientific and managerial outputs into concrete bilateral

commitments and will be developed under the guidance of the Lake Ohrid Committee and the countries' responsible ministries. The project will support the preparation, technical review, and intergovernmental consultation of draft Protocols, with the objective of submitting agreed texts to the two governments for signature and formal adoption, thus,, providing the Lake Ohrid Committee with the legal authority needed to ensure long-term, cooperative management of the basin's shared natural resources. Tentative activities include: (i) review of the Lake Ohrid Agreement and the relevant national legal frameworks to establish the legal and administrative basis for the new addendums; (ii) drafting of the text for the three Protocols; (iii) convening of joint technical committees with officially appointed members, to discuss, review, and agree on the draft protocol texts; (iv) presentation of the finalized draft Protocols to the Lake Ohrid Committee for endorsement; (v) presentation of the agreed-upon Protocols to the governments of Albania and North Macedonia for official signature and subsequent formal adoption.

Component 3: Investing in Pollution Control and Ecosystem Resilience [\[3\]](#)

This Component and Outcome will assist in addressing pressures that are critical for the wellbeing of the ecosystems and society and fall part of the six SWMIs identified by the LOWMP. Work under this Component will contribute to the health of the lake and the resilience of its socio-ecological system by:

- Reducing point source pollution from: an urban source through nature-based solutions (constructed wetlands); the Sateska river through work done upstream in the catchment of the river; boat operation by developing or enabling the development of management infrastructure and practices.
- Reducing diffuse pollution by promoting sustainable agricultural practices in the form of precision agriculture.
- Addressing erosion challenges through nature-based solutions in the Sateska river catchment.
- Improving fisheries management by enhancing the technical capacities for the illegal fishing monitoring and control.

To achieve these, the Component will adopt a blend of on the ground actions, including small scale interventions as well as actions to mobilize the market, designed and field tested. In the case of nature-based solutions for wastewater management, the project will seek to replicate the results of successful demonstration activities of the Drin I project. The identification of areas of implementation, design, implementation and evaluations of demonstrations will be based on a highly participatory approaches, and secure engagement of women and men practitioners and users to ensure inclusive participation and identification of gender-differentiated constraints. The locations of the Component's interventions will reflect the LOWMP findings and will be agreed upon by the two countries. It is expected that the combined impact of all these actions and of the benefits derived from them, will enable setting in motion a sustained and long-term commitment of the littoral countries to the full-fledged implementation of the LOWMP, the Master Plan and the Ohrid Agreement.

Outcome 3.1: Nutrient and toxic pollution is reduced, and ecosystem functioning and preservation is enhanced through priority actions and demonstration of nature based and agricultural solutions.

Indicative indicator 3: An integrated package of priority pollution control and ecosystem resilience measures successfully demonstrated and uptaken (to be adjusted during PPG phase)

Output 3.1.1. One nature based solution for wastewater treatment (engineered wetlands) is constructed in a priority area, benefits documented and disseminated, and opportunities for replicating and scaling are pursued.

Untreated rural wastewater is a primary pressure leading to water quality deterioration in Lake Ohrid, accounting for the largest share of anthropogenic phosphorus loading. By piloting a cost-effective engineered wetland for a rural settlement lacking connection to a centralized sewage, this output directly advances the goal to reduce nutrient and toxic pollution. The intervention will also decrease point-source biochemical oxygen demand (BOD) contributing to the improvement of the ecological status of the lake area where it will be positioned and establish a scalable, nature-based model to be replicated basin-wide. The implementation of the activity will be done in close cooperation with the municipalities. Tentative activities include: (i) selection of a priority site based on criteria that will be developed during project implementation^{[4]⁸}; (ii) organization of gender-sensitive community consultations and capacity-building to ensure local ownership; (iii) development of technical documentation (pre-feasibility studies, ESMPs, and detailed engineering designs); (iv) construction and operationalization of the engineered wetland; (v) monitoring the wetland's operational efficiency and nutrient reduction levels and assessing scaling potential; (vi) documenting benefits and lessons learned, sharing these through communication channels and events to build local awareness, acceptance, and buy-in, and engaging donors to scale up similar solutions across the basin.

Output 3.1.2. Two precision agriculture demonstration activities implemented to empower women practitioners and promote practices in priority areas for nutrient and toxic pollution reduction, soil conservation, and water use optimization, benefits documented and disseminated, and opportunities for replicating and scaling are pursued.

Agriculture accounts for over 50% of the Lake Ohrid basin's nutrient load. Unsustainable practices, such as agrochemical overuse and inefficient furrow irrigation, drive runoff and erosion that directly threaten the lake's oligotrophic status and unique biodiversity. By piloting precision agriculture technologies in high-risk areas, the project will demonstrate how optimizing resource use can reduce diffuse pollution, conserve soil, and establish a replicable model for sustainable farming, while socializing the results to build pathways for broader adoption. Aiming for the empowerment of women, the project will explore possibilities so one of the activities is possibly women-led. The project will seek to engage commercial banks and donors to explore credit schemes, guarantees or other financial mechanisms that could support the upscaling of precision agriculture practices if the pilot activities prove successful and demonstrate strong scaling potential. Indicative activities include (i) selecting priority demonstration sites in high-risk agricultural areas near the lake or key tributaries (e.g., Sateska, Koselska, or Çeravë sub-basins) based on criteria that will be developed during project implementation^{[5]⁹} including criteria that prioritize women-led agricultural businesses or farms; (ii) assessing current practices and developing tailored action plans for precision agriculture and best agricultural practices (BAP); (iii) procuring equipment and implementing the demonstrations through a targeted grant scheme; (iv) organizing inclusive capacity-building for participating farmers that actively engages women practitioners on sustainable soil, water, and pest management; (v) monitoring and evaluation including regarding reductions in water, fertilizer, and pesticide usage; (vi) assessing scaling potential; (vii) documenting benefits and lessons learned and sharing these through communication channels and events to build local awareness, acceptance, and buy-in; (viii) engaging financial institutions and donors to design micro-credit or subsidy schemes for basin-wide upscaling, based on the established scaling potential, incorporating mechanisms that specifically support women's economic empowerment.

Output 3.1.3. Nature-based solutions designed and implemented for erosion control in the Sateska basin in North Macedonia.

The Sateska River, which was diverted into Lake Ohrid decades ago, is a major source of suspended sediment and accounts for up to 39% of the total phosphorus inflow from the lake's tributaries. This erosion and sedimentation severely degrades the lake's sensitive littoral habitats and drives eutrophication. Building on activities implemented by UNDP with financing from the Adaptation Fund [\[6\]¹⁰](#) the project will deliver nature-based erosion control measures in the upper Sateska basin, resulting in reducing diffuse nutrient loading and sedimentation and establishing a replicable model for basin-wide soil conservation. Tentative activities include (i) conducting feasibility studies for ecosystem-based measures to reduce erosion and sediment transport in the upper Sateska River (e.g. natural sediment traps); (ii) development of engineering designs and tender dossiers for the selected mitigation measures; (iii) implementation of the nature-based solutions; (iv) monitoring and evaluation of the efficiency of the implemented measures; (v) engagement of donors and financing partners to investigate options and opportunities for scaling up successful nature-based solutions in other parts of the basin.

Output 3.1.4. Investment documentation developed and financing mobilization actions undertaken for the reconstruction/rehabilitation of Ohrid town's port and waterway infrastructure, reducing pressure on the littoral ecosystem.

Unregulated cruising and boating in Lake Ohrid present significant anthropogenic pressures, contributing to localized water pollution through potential engine-oil spillage and untreated onboard toilet discharges. The current lack of proper docking and servicing infrastructure forces most vessels to use inadequate locations like the Studenchishki canal, which lacks elementary facilities for safe refuelling and servicing, further exacerbating environmental degradation.

By developing documentation to increase the maturity of the investment and identifying of, and holding targeted meetings with, possible investors, financing institutions, and donors, this output establishes the groundwork to mitigate toxic pollution, improve vessel management, and enhance the preservation of vulnerable aquatic ecosystems. Tentative activities include: (i) conducting a review and analysis of existing boating legislation to harmonize local regulations with EU Directives and standards; (ii) identification and assessment of suitable solutions for the sustainable reconstruction and rehabilitation of port facilities; (iii) development of documentation (e.g. a project fiche including feasibility considerations for potential donors and investors, an investment and financial structuring roadmap, and an environmental and social safeguards scoping) to increase the maturity of the investment; (iv) strengthening the capacity of the local port authorities for sustainable waterway management and enforcement; (v) identifying and engaging through targeted meetings with donors and financing partners to investigate opportunities for the mobilization of investments for the reconstruction/rehabilitation of Ohrid town's port and waterway infrastructure.

As detailed engineering designs and construction works would require dedicated financing beyond the present GEF increment, the project will seek to identify potential co-financing during the PPG phase and use the GEF-supported investment documentation to help mature the future investment package. *Output 3.1.5. Compliance protocols, equipment procurement, awareness raising, and training programs implemented to enhance the illegal fishing monitoring and control capacities in both countries and empower women practitioners.*

As already explained in this PIF, the freshwater fisheries sector in the transboundary lakes of the Drin Basin is a vital socio-economic component, but vulnerable endemic species (like the Ohrid trout and Belvica) are

severely threatened including by illegal fishing and unsustainable fishing practices. Complementing the policy and regulatory harmonization efforts pursued under Output 2.1.1 (Joint Fishery Management Plan), this output is designed to provide the on-the-ground enforcement tools and training required to operationalize this instrument. Indicative activities include: (i) conducting gender-responsive capacity-building and training for protected area managers, law enforcement units, and local fishermen focused specifically on fishing monitoring compliance and control practices, while actively promoting women's roles; (ii) procuring necessary enforcement equipment, such as (the type of equipment will be decided in consultation with the authorities) drones, cameras and patrol boats, to actively combat illegal fishing, ensuring that all procured technologies and gear are accessible and suitable for use by both women and men; equipment will be purchased for and utilized by authorities responsible for the enforcement of fisheries legislation and regulation in each of the countries; (iii) developing and implementing joint transboundary compliance protocols for coordinated action in cases of poaching or illegal fishing, integrating gender-sensitive approaches to community enforcement and conflict resolution; (iv) organizing awareness-raising campaigns among fishermen and their associations to foster compliance with the new joint Fishery Management Plan and encourage the adoption of best fishing practices that support equitable and sustainable livelihoods for all.

Component 4: Knowledge Management (KM) and communications [\[7\]](#)¹¹

Communication is essential to reinforce stakeholder engagement, maximize project visibility, and raise broad awareness about transboundary environmental challenges and their solutions. By implementing a communication strategy, the project will strengthen both political and public understanding of the critical need for coordinated action under the Lake Ohrid Agreement.

Generating, curating, and using knowledge is a crucial supporting mechanism for successfully achieving the changes fostered through this project. Following GEF guidance on knowledge management as well as established principles and practices by the Implementing and Executing Agencies (IA and EA), a comprehensive KM approach will be established. Enhancing transboundary cooperation in the Basin requires sustaining consensus between the littoral countries and strengthening the science-policy interface. This ambition relies on cooperative frameworks and knowledge development; both are fostered through the project design, meaning most of the Project outputs can be considered “knowledge assets,” both tangible and intellectual in nature. Under the Project, scientific data generated will inform policy, while demonstration projects will yield practical experience.

Ultimately, an integrated process to leverage and systematically share these knowledge assets with beneficiaries and partners, to foster a transparent, two-way exchange of information and lessons learned, is expected to enhance stakeholder capacity and build the strong culture of shared stewardship that is necessary for successfully achieving and sustaining the project's long-term conservation results.

Furthermore, understanding that the successful application of newly developed policy and scientific tools requires strengthened institutional capacities, this component prioritizes targeted capacity-building programs for key operational entities, particularly the Ohrid Hydrobiological Institute and basin municipalities.

Finally, the project will leverage the GEF International Waters Focal Area's pioneering portfolio-wide knowledge management mechanism: the IW:LEARN Project.

Outcome 4.1: Effective and inclusive knowledge management, lessons learning, capacity building and communications

Indicative indicator 4: Knowledge and communication including a two-way exchange mechanism lead to improved project management and enhance likelihood for project results sustainability (to be adjusted during PPG phase)

Output 4.1.1. Knowledge mechanism and products, and communication materials, are developed and disseminated for basin institutions and stakeholders based on project results.

An Outreach and Communications Strategy (OCS) will be developed early in the project implementation to maximize visibility and advocacy, reinforce stakeholder engagement and support the achieving and sustaining of the project results. The OCS will aim to -among others- raise awareness of and communicate transboundary challenges and solutions, and strengthen political and public understanding of the need for coordinated action under the Lake Ohrid Agreement etc.

The OCS will utilize a 'Communication for Development' approach. An indicative (and not exhaustive) list of activities is provided below; this list is subject to changes when the OCS will be developed:

- Public Lake-Health Dashboards: Digital platforms translating simple monitoring data into simplified 'lake health' indicators for the tourism and local sectors.
- 'Science-to-Policy' Video Series: Short documentaries explaining the pressures to the ecosystem and the needed solutions.
- Precision Agriculture Field Days: On-farm events where women-led demonstration results are shared peer-to-peer to encourage the adoption of nutrient-reduction practices.
- NbS Educational Trails: Guided tours at engineered wetland site in the Kosovo created through the GEF Drin I project, to demonstrate nature-based solutions for rural wastewater treatment.
- Municipal Master Plan Roadshows: Town hall meetings to discuss and facilitate the integration of the transboundary Master Plan into local spatial planning and tourism strategies.
- Media Events: Events on the occasion of milestone events.
- Targeted Awareness Campaigns: Radio spots and posters for fishing associations and boat operators.
- Bilingual Technical Bulletins: Printed reports and policy briefs in Albanian and Macedonian detailing the project's scientific findings for national ministries.
- Website & Press Releases: Regular website updates as well as updates to regional media outlets to maintain project visibility and political momentum.

Further, the OCS will include actions for the dissemination of the knowledge products (see text below).

The project will establish a two-way participatory, and gender-responsive basin learning and stakeholder feedback system to move beyond one-way information broadcasting and support adaptive project implementation. This system creates a continuous loop where technical knowledge developed by the project is disseminated and communicated to stakeholders, while their experiences -including traditional and local knowledge from farmers, fishermen, and women practitioners- and lessons learned are captured and used to inform adaptive project management. The mechanism will be operationalized through structured technical dialogues, field learning events, structured communication channels as well as the dedicated grievance redress mechanism that will be established under Component 5 to ensure transparent accountability and local ownership. The system will ensure the participation of the Lake Ohrid Committee (LOC), national institutions, local stakeholders (including the basin municipalities), and beneficiaries, including women and vulnerable groups, in monitoring progress and validating results.

A knowledge management and learning mechanism (KMLM) will be established and operationalized to systematically capture, synthesize, and disseminate data, experience, and lessons generated through the

implementation of the Project. Anchored in the PMU and engaging Lake Ohrid Committee and relevant national institutions, the KMLM will consolidate technical, policy, and practice-based knowledge emerging from transboundary governance harmonization, the establishment of scientific baselines, harmonized WFD-aligned monitoring, nature-based demonstration measures, ecosystem resilience, and investment preparation. The output will produce and disseminate user-oriented knowledge products -including briefs, technical notes, policy summaries, learning reports, and replication packages- tailored to governments, basin institutions, municipalities (such as Ohrid and Struga), practitioners, and local stakeholders. Driven by the OCS, dissemination will be ensured through national ministries and local authorities' platforms, the Project website, the Din CORDA website, workshops, and strategic communication channels. The KMLM will translate project-generated information into an accessible and practical knowledge base that supports evidence-based decision-making, basin management, and replication and scaling of successful approaches across and beyond the Lake Ohrid Basin.

Gender mainstreaming actions are embedded in all project activities. A Gender Action Plan that will be developed during PPG phase will ensure that these actions are implemented and monitored thoroughly throughout project implementation period ensuring the systematic capture and communication of sex-disaggregated data, gender-responsive lessons, and differentiated experiences of women and men in transboundary water governance, climate resilience, and ecosystem management, and promoting equitable access to knowledge products and learning processes. A Gender Community of Practice will be a mechanism established under this output to serve as a dedicated gender mainstreaming knowledge management tool and promote gender equality and women's empowerment in transboundary basin management. This platform will facilitate peer-learning, capture best practices, and generate gender-sensitive knowledge products to promote women's empowerment in transboundary basin management. It will ensure that gender integration is operationalized through structured knowledge exchange and will align with the broader Drin SAP project's Gender Community of Practice.

Output 4.1.2. Targeted capacity development implemented for authorities to support application of project developed tools and approaches.

This output strengthens institutional and technical capacity to apply project tools and reforms. Capacity development will be aligned with reform processes and support uptake of project results. The role of Ohrid Hydrobiological Institute is crucial in enabling informed decision-making. So is the role of the Municipalities in both countries for the management of the watershed and the lake. Tentative activities include: (i) identification of institutional and gender-differentiated capacity needs for the Ohrid Hydrobiological Institute and Municipalities; (ii) design and delivery of targeted training programmes; (iii) implementation of capacity development activities e.g. workshops and seminars.

Output 4.1.3. IW:LEARN level and wider transboundary knowledge exchange contributions are delivered, including participation in IW:LEARN activities.

The project will ensure systematic contribution to regional and global knowledge exchange processes through active engagement with the GEF International Waters Learning Exchange and Resource Network (IW:LEARN), the UNECE Water Convention, and other relevant transboundary cooperation platforms, as the Drin Coordinated Action. This will enable the Lake Ohrid Basin experience to both inform and benefit from global best practices in transboundary water governance, climate resilience, and ecosystem-based basin management. The project will actively participate in IW:LEARN regional and global activities, including International Waters Conferences, regional workshops, thematic learning exchanges, and training events, dedicating at least 1% of the project grant to support these IW:LEARN activities. It will contribute as appropriate case studies, technical inputs, and lessons learned. In line with IW:LEARN requirements, the project will develop and disseminate standardized knowledge products, such as

experience notes, results briefs, and metadata for global knowledge platforms, ensuring replicability and scaling across other transboundary basins.

The project will also facilitate South–South and peer-to-peer learning by engaging with the GEF Drin SAP project and other GEF International Waters projects in Eastern Europe and beyond, promoting the exchange of practical solutions on shared challenges such as eutrophication, tourism pressures, pollution management, and institutional coordination. Where feasible, joint learning events, twinning arrangements, and targeted exchanges will be organized to deepen collaboration.

Component 5: Monitoring and Evaluation

Outcome 5.1 Effective and adaptive project management based on gender-inclusive M&E and lessons learning.

Output 5.1.1 A gender-responsive project Monitoring and Evaluation System designed and operational.

A gender-responsive, Monitoring, Evaluation and Learning (MEL) system will be established and operationalized to track progress toward project outcomes, global environmental benefits, and institutional performance in line with GEF-8 International Waters and UNDP requirements. The system will integrate process, governance, environmental stress-reduction and gender indicators, based on the Project Results Framework and aligned with GEF Core Indicators. It will ensure systematic monitoring of project performance, co-benefits, stakeholder engagement, gender outcomes, and environmental and social safeguards, including implementation of the Gender Action Plan, Stakeholder Engagement Plan, and Environmental and Social Management Framework (ESMF).

Indicators, baselines, and targets will be established during PPG phase and refined during project implementation phase and, where relevant, will be disaggregated by sex and stakeholder groups. The MEL system will support adaptive management by generating timely, high-quality information for decision-making by the Project Steering Committee, Lake Ohrid Committee, and relevant national institutions, and will ensure that lessons learned are continuously fed back into project implementation and knowledge management processes.

Output 5.1.2. Annual review and grievance mechanism developed & implemented. PIRs completed and independent project evaluations conducted.

Annual review processes, evaluation activities, and a grievance mechanism will be established and implemented to ensure accountability, transparency, and adaptive management throughout the project lifecycle.

The project will produce monitoring and evaluation outputs in line with GEF and UNDP requirements, including annual Project Implementation Reports (PIRs), Mid-Term Review (MTR), and Terminal Evaluation (TE). A Grievance Redress Mechanism will be operationalized and monitored to ensure that stakeholder concerns are addressed in a timely and transparent manner.

Annual review meetings, involving the Lake Ohrid Committee, national institutions, and key stakeholders, will be conducted to assess progress, review results, and address implementation challenges. Evaluation findings will assess progress toward outcomes and impacts, effectiveness of governance and stress-reduction measures, gender equality and local communities' inclusion, and compliance with environmental and social safeguards. Findings and recommendations will be systematically integrated into adaptive management, knowledge products, and future programming, supporting replication and scaling within and beyond the Lake Ohrid Basin.

Indicative Implementation Arrangements

The proposed project will be executed in line with UNDP and GEF standards. UNDP is the GEF Implementing Agency (IA) responsible for channeling resources to the executing agency and assuring compliance with UNDP and GEF policy and procedures. Global Water Partnership (GWP) is the Executing Agency (EA) to deliver the project's outcomes and outputs. A dedicated Project Coordination Unit (PCU) will be established, hosted by GWP tentatively comprising a Project Manager and one Project Officers that will serve both littoral countries (this arrangement will be re-assessed during PPG phase).

Drawing on the successful governance model of the GEF Drin projects -which utilized its existing transboundary body (such as the Drin Core Group) to ensure political ownership and develop transboundary institutional capacities- the Lake Ohrid project will establish its Project Steering Committee by engaging the existing Lake Ohrid Committee. The Project Steering Committee will be comprised of (i) officially nominated representatives from the competent national ministries and mandated authorities of Albania and North Macedonia (ii) officially nominated representatives of the two countries from the Lake Ohrid Committee; (iii) officially nominated representatives of the Ohrid and Pogradec municipalities; (iv) representatives of UNDP; (v) a representative of GWP; (vi) the Project Manager. Furthermore, to foster broader regional integration, representatives from the Drin Core Group (DCG) and the Prespa Park Management Committee (PPMC) will participate as observers.

Aiming national ownership and sustainability the project will engage national and local institutions and organizations (scientific institutions/universities and local authorities; these and their roles will be identified discussed and agreed upon during PPG phase) in the implementation of activities through the “responsible partner” modality i.e. contracted by the Executing Agency. Such institutions and organizations will be engaged under Output 1.1.1. regarding surveillance and investigative monitoring, Output 1.1.2 regarding the Hydrological and Hydraulic model, Output 1.1.3 regarding the transboundary level operational monitoring program, Output 1.1.4. regarding the joint fish stock assessment study, Output 2.1.2. regarding country level management and planning tools for geographically adjacent nationally established protected areas, Output 3.1.3. regarding nature-based solutions designed and implemented for erosion control.

Building on almost 20 years of continuous work in the Drin Basin, GWP-Med brings a unique combination of scientific, technical, institutional and facilitation expertise that directly strengthens the project’s capacity to deliver integrated results across the Lake Ohrid watershed. Its long-standing role as Secretariat of the Drin MoU and executing GEF supported projects in the Drin Basin, has equipped it with deep understanding of transboundary governance dynamics, trust-based relationships with national and local institutions, and extensive experience in supporting joint monitoring, modelling, and evidence-based basin planning; these are critical foundations for the harmonized policy, legal, and technical instruments that the project will develop. GWP-Med’s operational presence and networks in both Albania and North Macedonia enable it to effectively manage field-based demonstrations, coordinate with municipalities and protected area authorities, and engage local users in adopting sustainable practices in wastewater, agriculture, erosion control, fisheries, and tourism. Its proven experience in designing and executing nature-based solutions, facilitating multi-sectoral dialogue, mobilizing scientific institutions, and leading gender-responsive stakeholder engagement ensures coherent implementation across technical, institutional, and community-driven activities. By combining basin-level strategic coordination with hands-on implementation capacities, GWP-Med substantially reduces operational and governance risks and ensures that project interventions are not only technically sound but also institutionally anchored, socially accepted, and scalable across the wider Drin Basin.

3. Global Environmental Benefits and Additionality

The proposed project intends to enhance cooperation for the management of the transboundary Lake Ohrid Watershed, encompassing the Lake and its catchments, thereby enhancing water security in shared freshwaters. This objective is strategically aligned with the GEF-8 International Waters (IW) Focal Area, particularly *enhancing water security in shared freshwater ecosystems*. The key global environmental benefits expected from the project include reduced land-based pollution, conservation of endemic species and improved ecological status.

The project will achieve these benefits by implementing a comprehensive, integrative, and inclusive approach. It focuses on supporting priority measures identified in the jointly developed LOWMP, the first plan in the region aligned with the EU WFD. Enhancing the knowledge base necessary for decision-making and aligning with WFD requirements is among its key actions. The project will support management strategies and on-the-ground interventions to reduce point and non-point pollution sources, and address erosion. Additionally, it will support the development of policy tools to address pressures deriving from anthropogenic activities. Strengthening transboundary institutional capacity and coordination, including joint decision-making processes through the Lake Ohrid Committee, is crucial for ensuring the sustainable and harmonized management of the shared basin. The development of a Master Plan for Lake Ohrid will aim to integrate environmental, social, and economic priorities and align sectoral plans at the transboundary level.

The project's additionality lies in aligning broader Drin-basin cooperation and planning frameworks with Lake Ohrid basin-specific package of science/knowledge, governance/management, and capacity/implementation support. The GEF financing is essential for catalyzing this complex transboundary cooperation and supporting the basin-wide implementation of agreed measures. While national efforts driven by EU approximation processes exist to improve water quality and waste management, coordinated investments and cooperative efforts at the transboundary level are lacking. GEF support provides the necessary impetus to bridge national efforts, align legal and institutional frameworks across borders in line with WFD requirements, and coordinate infrastructure investments. It leverages the existing Lake Ohrid Agreement and the momentum from the EU accession processes of Albania and North Macedonia. By building on and complementing past and ongoing initiatives, the project fills critical gaps in harmonization and implementation investment needed for effective transboundary management. This targeted GEF investment enables a coordinated, basin-wide approach that addresses the transboundary nature of the problems and supports the conservation of globally significant biodiversity, which would not occur or would be significantly delayed and fragmented without this catalytic support. The project's comprehensive and integrated approach, addressing multiple interlinked pressures, distinguishes it from isolated sectoral interventions.

The objective of the proposed project is also aligned with the GEF-8 Focal Areas related to: (ii) Biodiversity, and (iii) Land Degradation.

ii. Biodiversity

The project will contribute to the long-term conservation and sustainable use of Lake Ohrid's globally significant biodiversity (which is recognized as a UNESCO World Heritage site) by addressing critical threats to the lake's unique ecosystems, such as pollution and habitat change. Through the development of a Joint Fishery Management Plan, harmonization of protected area regimes, promotion of nature-based solutions reducing point and diffuse source pollution, ecosystems restoration, and adoption of sustainable tourism practices, the project will safeguard habitat integrity and improve ecological connectivity within the lake and its watershed.

Additionally, GEF support will enable the project to address root causes of biodiversity decline, as well as its overall comprehensive approach to biodiversity conservation: conducting fish stock assessments to inform science-based fishery quotas and minimum catchable sizes; harmonizing the zoning systems and

management regimes of adjacent protected areas to ensure coherent ecosystem protection across borders; and controlling illegal fishing through enhanced monitoring capacities. This integrated, synergistic approach is critical for the durability of conservation outcomes and ensures that the project's investment will yield multiple benefits across water quality, land health, and species protection.

iii. Land Degradation

The project will address soil erosion and sedimentation processes that threaten Lake Ohrid's water quality and ecosystem health. Through nature-based solutions in critical catchment areas (such as the Sateska River), and promotion of sustainable and precision agriculture practices, the project will reduce diffuse pollution and sediment inflow, improving both terrestrial and aquatic ecosystem functions. These interventions will restore soil productivity, stabilize riparian zones, and enhance landscape resilience to climate variability.

Additionality stems from the integration of land management and watershed restoration actions within a broader transboundary governance framework. With GEF support, the project's approach combines upstream catchment interventions with downstream pollution control, thus creating a demonstration model for integrated land and water management. The Master Plan will guide spatial planning to prevent further land use changes that could exacerbate erosion and degradation, while the updated Lake Ohrid Watershed Management Plan will include specific measures addressing land-based pressures. These interventions will yield not only direct benefits, but also transferable lessons for other mountainous lake watersheds facing similar land degradation challenges.

4. Stakeholder Engagement and Co-benefits

The successful implementation of the project and the sustaining of its results rely on the successful engagement of various stakeholders in the planning and implementation of project activities, ensuring that their voices are heard and their needs are addressed. The development of the Project Document will undergo an inclusive consultation process engaging main stakeholders and representatives of local communities. A gender-responsive Stakeholder Engagement Strategy will be developed already from the PPG phase. The Strategy will run horizontally across all project components. It will map and categorize all relevant stakeholders -national and local authorities, protected area managers, water and environmental agencies, research institutions, civil society, women's organizations, tourism and fisheries actors, and local communities- while clarifying their roles, interests, influence, and engagement needs. It will outline tailored engagement activities ranging from structured consultations, joint technical meetings, and community level dialogues to targeted involvement of marginalized groups, including women, youth, and vulnerable users. Importantly, it will ensure coherence with ongoing national, transboundary, and Drin Basin initiatives, reducing duplication and aligning local processes with regional cooperation frameworks. By explicitly integrating gender considerations, the strategy will promote women's participation across all stages of planning and decision making and address gender differentiated impacts in water, biodiversity, and tourism management.

The project's implementation arrangements are designed to institutionalize stakeholder engagement, ensure national ownership, and foster long-term transboundary cooperation. To secure both high-level political commitment and localized participation, the Project Steering Committee will be anchored within the existing Lake Ohrid Committee, uniting national ministries and local municipalities. Crucially, the project will promote direct local appropriation by formally engaging national scientific institutions and local authorities to directly execute key activities ensuring that interventions are scientifically sound, community-driven, and socially accepted.

Stakeholder engagement is already systematically integrated across all components of the Lake Ohrid project to ensure local ownership, inclusive governance, and the long-term sustainability of project results.

Within the first component, which focuses on enhancing knowledge, the project will facilitate transboundary technical and scientific coordination to ensure consensus between Albanian and North Macedonian national institutions on WFD-aligned sampling and analysis methodologies. It will conduct validation workshops and training for hydrological and hydraulic models that actively engage both women and men technical staff, while collaboratively developing standardized institutional protocols for long-term transboundary monitoring with designated national authorities. Furthermore, national scientific institutions and protected area authorities will be involved in joint fish stock assessments to utilize findings for sustainable fisheries management.

In the second component, advancing legal and policy frameworks relies heavily on inclusive planning. The project will form technical working groups and will conduct participatory, inclusive consultation processes in both countries to validate joint fishery management measures. It will establish joint, gender-balanced technical groups and will organize transboundary consultation workshops with local stakeholders to validate harmonized management tools for protected areas. The updated Lake Ohrid Watershed Management Plan will be developed through gender-balanced stakeholder consultations and public participation events. Similarly, the basin's municipalities will drive inclusive, gender-balanced working groups to finalize the Lake Ohrid Master Plan and Tourism Development Plan.

For the third component's physical investments, the project will organize gender-sensitive community consultations and capacity-building to secure local ownership of engineered wetlands for rural wastewater treatment. Precision agriculture demonstrations will be supported by inclusive capacity-building that actively engages women practitioners, paired with community events to build local awareness and buy-in. Targeted meetings with potential investors, financing institutions, and donors will be held to mature investments for sustainable port and waterway infrastructure.

The fourth component prioritizes direct communication and learning. It will establish a Gender Community of Practice to serve as a mainstreaming platform and will implement an Outreach and Communications Strategy and a KM approach featuring a two-way exchange mechanism to maintain continuous dialogue with stakeholders. Stakeholder learning will be further operationalized through technical dialogues, field events, and exchange visits that ensure the participation of local municipalities, vulnerable groups, and women to integrate community feedback directly into project implementation.

A preliminary identification of roles and contributions of key Stakeholders (see also section 1.5), are outlined in the table 3 below; this is to be refined and reflected in the stakeholder engagement plan that will be informed by a stakeholder analysis, developed during the PPG phase.

Table 3: Roles and contributions of key Stakeholders

Stakeholder group	Stakeholder list	Possible contributions and roles in the project	Outputs to which each stakeholder group is expected to contribute in
Government entities (ministries and government institutions)	Ministry of Environment and Physical Planning (MoEPP) - MKD Ministry of Tourism and Environment (MTE) - ALB	Responsible for development and implementation of relevant policies and plans; provision of policy guidance and regulatory oversight	• 1.1.1: Surveillance and investigative monitoring and WFD reference conditions

	Ministry of Agriculture, Forestry and Water Management - MKD Ministry of Culture and Tourism - MKD Ministry of Transport - MKD Ministry of Finance - MKD Water Management Organization - MKD Public Forest Enterprise “Makedonski Sumi” - MKD Administration for Hydro-Meteorological Service - MKD Ministry of Agriculture and Rural Development - ALB Ministry of infrastructure and Energy - ALB Ministry of Finance - ALB National Environmental Agency - ALB Water Resources Management Agency - ALB Management authorities of protected areas in the Lake Ohrid Basin - MKD and ALB	Provision of advice and technical input to relevant plans that will be developed within the project and adoption of the documents National coordination of activities in fields of mandate Provision of information and data Participation in relevant coordination mechanisms for the Lake Ohrid (e.g. transboundary Lake Ohrid Committee, National UNESCO Committee) Members of the project Board (MoEPP and MTE)	• 1.1.2: Hydrological and hydraulic models • 1.1.3: Transboundary operational monitoring program • 1.1.4: Joint fish stock assessment study • 2.1.1: Joint Fishery Management Plan • 2.1.2: Harmonized country-level management and planning tools for protected areas • 2.1.3: Updated Lake Ohrid Management Plan • 2.1.4: Master plan and tourism development plan • 2.1.5: Protocols to the Lake Ohrid Agreement • 3.1.1: Nature-based solution for wastewater treatment (engineered wetlands) • 3.1.3: Nature-based solutions for erosion control (Sateska basin) • 3.1.4: Investment documentation and financing mobilization for port
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			and waterway infrastructure • 3.1.5: Illegal fishing monitoring and control capacities • 4.1.2: Targeted capacity development and learning programmes • 4.1.3: IW:LEARN and transboundary knowledge exchange • 5.1.2: Annual review, PIRs, and grievance mechanism
Local governments	Municipality of Ohrid - MKD Municipality of Struga - MKD Municipality of Debarca - MKD Municipality of Pogradec - ALB	Responsible for development and implementation of relevant policies and plans at local level; provision of policy guidance and regulatory oversight Provision of guidance and engagement in implementing activities at the local level; adoption of plans and instruments Enabling community participation Beneficiaries of capacity-building activities Issuance of permits/licenses	• 2.1.2: Harmonized country-level management and planning tools for protected areas • 2.1.3: Updated Lake Ohrid Management Plan • 2.1.4: Master plan and tourism development plan • 2.1.5: Protocols to the Lake Ohrid Agreement • 3.1.1: Nature-based solution for wastewater treatment (engineered wetlands)

			• 3.1.3: Nature-based solutions for erosion control (Sateska basin) • 3.1.4: Investment documentation and financing mobilization for port and waterway infrastructure • 4.1.1: Knowledge mechanism, communication materials, and learning packages • 4.1.2: Targeted capacity development and learning programmes • 5.1.2: Annual review, PIRs, and grievance mechanism
Relevant committees	Lake Ohrid Committee UNESCO Committee Drin Core Group	Transboundary coordination under the Lake Ohrid Agreement; adoption of plans and instruments (Lake Ohrid Committee) Platforms for transboundary dialogue on issues related to the protection of the Lake Ohrid Basin and the Drin Basin Coordination of policies/strategies Members of the project Board (Lake Ohrid Committee)	• All outputs: Lake Ohrid Committee • 2.1.1: Joint Fishery Management Plan • 2.1.3: Updated Lake Ohrid Management Plan • 2.1.4: Master plan and tourism development plan • 2.1.5: Protocols to the Lake Ohrid Agreement • 4.1.3: IW:LEARN and transboundary knowledge exchange

			• 5.1.2: Annual review, PIRs, and grievance mechanism
CSOs/Associations	Civil Society Organizations/Non-governmental organizations with national level influence and grass- roots organization active in the Lake Ohrid Basin in MKD and ALB (e.g. Scout Organization, environmental organizations, youth organizations, women organizations, associations of farmers, associations of tourism, fishermen associations)	Social mobilization; public awareness and advocacy; beneficiaries of capacity building activities	• 2.1.1: Joint Fishery Management Plan • 2.1.2: Harmonized country-level management and planning tools for protected areas • 2.1.3: Updated Lake Ohrid Management Plan • 2.1.4: Master plan and tourism development plan • 3.1.2: Precision agriculture demonstration activities • 3.1.5: Illegal fishing monitoring, control, and awareness campaigns • 4.1.1: Knowledge mechanism, communication materials, and learning packages • 4.1.2: Targeted capacity development and learning programmes • 5.1.1: Gender-responsive project Monitoring and Evaluation System

Community-level stakeholders	Village/Community leaders Informal natural resources users' groups	Community mobilization, beneficiaries of capacity-building activities and on the ground interventions	• 2.1.2: Harmonized country-level management and planning tools for protected areas • 2.1.3: Updated Lake Ohrid Management Plan • 3.1.1: Nature-based solution for wastewater treatment (engineered wetlands) • 4.1.2: Targeted capacity development and learning programmes • 5.1.1: Gender-responsive project Monitoring and Evaluation System • 5.1.2: Annual review, PIRs, and grievance mechanism
Private Sector	Micro, small and medium enterprises (farmers, fishermen and fishery companies, their associations, SMEs active in tourism, boat operators etc.) - MKD, ALB Chambers of Commerce - MKD, ALB	The project will seek the engagement of the private sector, with the aim of enabling businesses to adopt and invest in sustainable approaches while creating value to local economies.	• 2.1.1: Joint Fishery Management Plan • 2.1.4: Master plan and tourism development plan • 3.1.2: Precision agriculture demonstration activities • 3.1.4: Investment documentation and financing mobilization for port and waterway infrastructure

			• 3.1.5: Illegal fishing monitoring, control, and awareness campaigns • 4.1.1: Knowledge mechanism, communication materials, and learning packages
Research institutions	Hydro- Biological Institute, Ohrid - MKD Faculties for Nature, Science and Mathematics, Faculty of Agriculture and Food, Faculty of Forestry, University “Kiril I Metodij” Skopje - MKD Faculty of Tourism and Hospitality, Ohrid - MKD Institute of Geosciences - ALB Institute of Public Health (for purposes related to biological monitoring of water), Tirana - ALB Agricultural University of Tirana, ALB	Provision of scientific support; undertaking of research activities; beneficiaries of capacity-building activities	• 1.1.1: Surveillance and investigative monitoring and WFD reference conditions • 1.1.3: Transboundary operational monitoring program • 1.1.4: Joint fish stock assessment study • 2.1.1: Joint Fishery Management Plan • 3.1.2: Precision agriculture demonstration activities • 3.1.3: Nature-based solutions for erosion control (Sateska basin) • 4.1.2: Targeted capacity development and learning programmes
Others	Power plants of North Macedonia	Ensuring that the Project’s activities promote a balanced way of ecosystem protection and	• 1.1.2: Hydrological and hydraulic models • 1.1.3: Transboundary

		preservation, and energy security	operational monitoring program • 2.1.3: Updated Lake Ohrid Management Plan • 2.1.4: Master plan and tourism development plan • 2.1.5: Protocols to the Lake Ohrid Agreement • 3.1.3: Nature-based solutions for erosion control (Sateska basin)
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A breakdown of how specific stakeholders listed in Table 3 will contribute to delivering each output is given below; this is to be refined and reflected in the stakeholder engagement plan that will be informed by a stakeholder analysis, developed during the PPG phase:

Component 1: Enhancing Enabling Environment for Transboundary Cooperation; this is to be refined and reflected in the stakeholder engagement plan that will be informed by a stakeholder analysis; both will be developed through the PPG phase:

- Output 1.1.1 (Surveillance and investigative monitoring and WFD reference conditions): Government entities -specifically the Ministry of Environment and Physical Planning (MoEPP - MKD), Ministry of Tourism and Environment (MTE - ALB), National Environmental Agency (ALB), and Water Resources Management Agency (ALB); will facilitate transboundary coordination to reach consensus on WFD-aligned methodologies. They will be supported by the Hydro-Biological Institute (Ohrid - MKD) and the National Environmental Agency (ALB).
- Output 1.1.2 (Hydrological and hydraulic models): Government entities, including the Administration for Hydro-Meteorological Service (MKD), the Water Resources Management Agency (ALB) and the Institute of Geosciences (ALB), will guide the development of models as primary users. They will coordinate with the Power plants of North Macedonia to ensure a balanced approach to ecosystem protection, climate change adaptation, and energy security.
- Output 1.1.3 (Transboundary operational monitoring program): Designated national authorities (Government entities like MoEPP and MTE) will collaborate to develop and adopt standardized institutional protocols, supported by the scientific expertise of the basin's Research institutions. The Power plants of North Macedonia will be engaged into this output to ensure their water release data and flow management are accounted for in the transboundary monitoring and information exchange.
- Output 1.1.4 (Joint fish stock assessment study): Research institutions, notably the Hydro-Biological Institute (MKD), Agricultural University of Tirana (ALB), and Faculties for Nature,

Science and Mathematics (Skopje - MKD), will be engaged. They will work alongside Government entities like the protected area management authorities and ministries of agriculture in both countries to utilize findings for sustainable fisheries.

Component 2: Advancing Legal and Policy Frameworks for Joint Management

- Output 2.1.1 (Joint Fishery Management Plan): Technical working groups including Research institutions will draft the plan, guided by the Government entities (Ministries of Agriculture). Private Sector actors (fishermen and fishery companies) and CSOs/Associations (fishermen associations) will participate in inclusive consultations.
- Output 2.1.2 (Harmonized country-level management and planning tools for protected areas): Government entities (Management authorities of protected areas, MoEPP, MTE) will establish joint technical groups. CSOs/Associations (environmental organizations) and Community-level stakeholders (Village leaders) will participate in consultation workshops to validate harmonized management tools.
- Output 2.1.3 (Updated Lake Ohrid Management Plan): Guided by primary Government entities, the inclusive planning process will actively engage CSOs/Associations (environmental, youth, and women organizations), Community-level stakeholders, and Relevant committees. As a major water user, the Power plants of North Macedonia will be engaged in defining ecological flows within the WFD-compliant plan.
- Output 2.1.4 (Master plan and tourism development plan): Local governments (Municipalities of Ohrid, Struga, Debarca, and Pogradec) will drive working groups to finalize the plans. They will collaborate with Government entities (Ministry of Culture and Tourism, MTE) and Private Sector stakeholders (SMEs active in tourism, Chambers of Commerce). It will be endorsed by Relevant committees, as applicable by national law..
- Output 2.1.5 (Protocols to the Lake Ohrid Agreement): Joint technical committees comprising appointed members from Government entities (MoEPP, MTE etc.) will guide the development of the protocols. The Power plants of North Macedonia will be consulted regarding the monitoring and information exchange protocol to ensure flow coordination. Protocols will be endorsed by the Relevant committees (Lake Ohrid Committee).

Component 3: Investing in Pollution Control and Ecosystem Resilience

- Output 3.1.1 (Nature-based solution for wastewater treatment - engineered wetlands): Local authorities and Community-level stakeholders (Village/Community leaders) will participate in consultations to ensure local ownership. Government entities (Ministry of Transport, Ministry of Infrastructure and Energy) will provide regulatory oversight.
- Output 3.1.2 (Precision agriculture demonstration activities): The Private Sector (farmers and micro/small agricultural enterprises) will implement demonstrations. They will be supported by CSOs/Associations (associations of farmers) and academic experts from Research institutions (Faculty of Agriculture and Food, Agricultural University of Tirana).
- Output 3.1.3 (Nature-based solutions for erosion control - Sateska basin): Government entities (Public Forest Enterprise "Makedonski Sumi") will work alongside Research institutions (Faculty of Forestry) and Local governments to design and implement measures.
- Output 3.1.4 (Investment documentation and financing mobilization for port and waterway infrastructure): Government entities (Ministries of Transport, Infrastructure, and Finance) and Local governments (Municipality of Ohrid) will engage in discussions with potential

donors to mature investments. Private Sector actors (boat operators, tourism SMEs) will be consulted for functional infrastructure designs.

- Output 3.1.5 (Illegal fishing monitoring and control capacities): Government entities (Management authorities of protected areas, law enforcement) will receive capacity building and equipment. Private Sector stakeholders (fishermen) and CSOs/Associations (fishermen associations) will be engaged through targeted awareness campaigns to foster compliance.

Component 4: Knowledge Management (KM) and Communications

- Output 4.1.1 (Knowledge mechanism and products, communication materials, and learning packages): CSOs/Associations (women organizations, environmental groups) will participate in the Gender Community of Practice. All stakeholders will engage in the two-way exchange mechanisms.
- Output 4.1.2 (Targeted capacity development and learning programmes): Capacity building will target municipalities and Research institutions (e.g., Hydro-Biological Institute) to apply project tools.

Component 5: Monitoring and Evaluation

- Output 5.1.1 (Gender-responsive project Monitoring and Evaluation System): Community-level stakeholders and CSOs/Associations will be actively integrated into a participatory M&E system to track project progress inclusively from the ground up.
- Output 5.1.2 (Annual review, PIRs, and grievance mechanism): A diverse group of stakeholders, including Relevant committees (Lake Ohrid Committee) and Government entities will participate in annual review meetings. The Grievance Redress Mechanism will ensure all stakeholders, from Local governments to Community-level stakeholders, have a transparent platform to address concerns.

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5. Knowledge Generation and Management

KM will not be a separate Project output, but it will be mainstreamed throughout the Project design during the Project Document development phase, as a crucial supporting mechanism to achieve expected results, offering a methodology based on existing literature and best practices to improve project operations and the knowledge base that will be developed under the project.

A Knowledge management (KM) approach will be developed as part of the Stakeholders Engagement Plan. The KM approach will follow the GEF guidance on knowledge management as well as established principles and practices by the IA and the EA.

The objective of the KM Approach will be to support stakeholder engagement and assist in sustaining and upscaling the achieved results through a structured and integrated process to leverage and systematically share knowledge assets generated by the Project with the intended beneficiaries and partners. In doing so, it will contribute to maximising the Project impact by: Strengthening project coordination and operational coherence; Improving monitoring and reporting to assess progress to impact; Reinforcing

capacities and skills of Project Partners and staff on KM; Enhancing joint learning across sectors and actors; Fostering incremental innovation and enrich the knowledge base of GEF Partners and Beneficiaries.

Informed knowledge-sharing will encourage a two-way informed dialogue among all stakeholders and foster a stronger culture of learning and cooperation. It will also facilitate a transparent exchange on challenges encountered and barriers. The learning aspect of KM will improve operations through peer-learning and capitalization of lessons learned. Enhancing transboundary cooperation in the Basin will require sustaining consensus between the littoral countries and among stakeholders on priority actions and strengthening the science-policy interface for their implementation. This ambition relies on strong cooperative frameworks and knowledge-development; both are fostered through the project design, thus in this sense most of the Project outputs can be “knowledge assets”, both tangible and intellectual in nature. Under the Project, scientific data generated will inform policy, while demonstration projects will yield practical experience and lessons. Knowledge will be shared through regional workshops, policy dialogues and publications. Lessons learned will be captured through structured monitoring and evaluation, periodic learning reviews, and stakeholder consultations. These will feed into adaptive project management and future planning. Gender-sensitive knowledge products will be developed to ensure inclusive learning. The KM approach will further define the modus-operandi for capturing and sharing this knowledge; it will provide an overview per output grouped in knowledge systems, knowledge products and knowledge-sharing services. This overview will be used also to monitor progress and facilitate reporting on knowledge-sharing efforts.

The GEF International Waters Focal Area has been pioneering a portfolio-wide knowledge management mechanism to share experiences and lessons learned across the freshwater and marine transboundary projects supported by the GEF: the IW:LEARN Project. Since 2000, IW:LEARN strengthens transboundary water management around the globe by collecting and sharing best practices, lessons learned, and promotes learning among project managers, riparian level officials, implementing agencies, and other partners. The Project will contribute to these efforts as recipient of support from the IW funding envelope and will make use of the learning opportunities offered by the IW:LEARN services to improve project delivery and capacity of involved stakeholders.

6. Policy Improvement and Coherence

A short description of the water-related legislation as well as the legal and governance frameworks for natural resources management and environmental protection in the littoral countries is provided in Section 1.2 of the Project Rationale above. A detailed list of strategic documents relevant for the project (policies, strategies, plans etc.), including the ones that are developed under conventions, is available in Annex 2.

The proposed project is aligned with the relevant legislation and strategic documents of the littoral countries and responds to the priorities indicated therein. Further, it supports Albania's and North Macedonia's commitments under the Drin Coordinated Action and complements regional initiatives such as the Western Balkans Green Agenda.

It will also promote:

- i. adherence with the EU Water Framework Directive and the Acquis Communautaire,
- ii. compliance with the Convention on the Protection and use of Transboundary Watercourses and International Lakes

- iii. fulfilling obligations under the UN Convention on Biodiversity and the UN Convention to Combat Desertification (UNCCD) and towards meeting (in the case of Albania) or setting (in the case of North Macedonia) Land Degradation Neutrality (LDN) targets
- iv. the achievement of relevant SDG targets.

By supporting the development of the Lake Ohrid Master Plan and integrating thematic plans into national strategies, the project ensures long-term uptake and institutionalization of results. Capacity-building of competent authorities will further embed WFD principles and adaptive management into practice.

7. Transformative and Innovative Potential and Scaling Up

While the project is fundamentally designed to implement known best practices and established management approaches as outlined in LOWMP, its transformative potential lies in the following aspects:

- **Integrated Transboundary Approach:** The project's focus on a transboundary watershed requires and will further enhance cooperation between Albania and North Macedonia.
- **Ecosystem-based Management:** By emphasizing the interconnectedness of various ecosystem components and human activities, the project promotes an integrated ecosystem-based approach to water resources management.
- **Emphasis on Sustainable Practices:** The project's focus on promoting sustainable wastewater management, agriculture and tourism practices can help to shift development patterns towards a more sustainable trajectory, reducing the environmental footprint of key economic sectors.
- **Stakeholder Engagement:** The project's stakeholder engagement component will empower local stakeholders and promote the adoption of sustainable practices beyond the project's lifetime.

A central element of the project's transformative potential is the development of a unified, transboundary Master Plan for Lake Ohrid. Currently, the two littoral countries manage critical domains such as river basins, fisheries, protected areas, cultural heritage, and tourism through separate, uncoordinated national plans. The new transboundary Master Plan will act as an overarching framework that integrates these fragmented environmental, social, and economic priorities across borders. Crucially, this approach will drive sectoral integration in practice, because the Master Plan's provisions will be formally embedded and operationalized within the legally binding spatial plans and local development strategies of the basin's municipalities in both Albania and North Macedonia.

The project's outcomes and lessons learned can be scaled up in several ways:

- **Replication in other watersheds:** The integrated approach and best practices demonstrated in the project can be replicated in other watersheds within Albania and North Macedonia. Further, the transboundary level action can serve as a model for other transboundary water management initiatives in the region. The latter suffers still from political instability and tensions; instead of being a source of tension, shared water resources could become a catalyst for cooperation.
- **Mainstreaming into national policies:** The project's policy recommendations can be mainstreamed into national water management, environmental protection, and sustainable development policies.

- Regional dissemination: The project's experience and knowledge can be shared with other countries in the region through regional platforms and networks, promoting wider adoption of sustainable water management practices.
- Private sector engagement: Successful models of private sector involvement in sustainable practices can be promoted and scaled up through incentives and partnerships.

The project will seek the engagement of the private sector for the implementation of activities under Component 3, creating value to the national and local economies. The project will work with the private sector with the aim of enabling business to adopt sustainable approaches to address challenges - especially- in ecologically sensitive areas and biodiversity hot spots. This would enable green growth, foster economic development while ensuring that natural assets continue to provide the resources and environmental services on which human well-being relies. The private sector groups that will be the focus in this regard will be farmers, fishermen their associations and fishery companies, tourism SMEs etc. The Project will aim to catalyze innovation and possibly investment to underpin the aimed sustained growth and give rise to new economic opportunities. Small-scale soft loans could be among the means to be tested to facilitate local economy in areas of ecological value promoting green business approaches, hence facilitating a transition to a -high value- local scale sustainable natural resources management. The engagement of local governmental structures to enabling the transition of local economy towards sustainable approaches and activities is of key importance, hence it will be sought.

The above is expected to have a positive effect also in terms of creation of jobs of added value for the local and national economy. Further, the private sector, being an important stakeholder, will receive special attention during the development of the stakeholder's engagement strategy and its implementation.

By focusing on these elements, the project can have a lasting impact on the sustainable management of water resources and contribute to broader environmental and socio-economic benefits.

[1] Component 1 services Pathway 1 (Science-to-Policy and Management Cooperation) and addresses Barrier 1 (Knowledge and Data) and Barrier 2 (Governance, Legal, and Policy). It assists to address all SWMIs and in particular SWMIs 1 (Point-source and diffuse water pollution), 2 (Water quantity and abstractions), and 5 (Fisheries) by improving the availability, quality, and usability of transboundary data to establish a shared scientific evidence base required for informed decision-making. It also assists in the implementation of the LOWMP, specifically supporting its Measures 'Policy, regulatory and knowledge base increase measures' objectives through 'Conducting research for determination of reference conditions for Lake Ohrid', 'Preparation and development of monitoring programme for transboundary water resource management in the LOW', and 'Permanent fish stock and fisheries monitoring'.

[2] Component 2 services Pathway 2 (Transboundary Governance and Alignment) and addresses Barrier 2 (Governance, Legal, and Policy). It assists to address all SWMIs and in particular SWMIs 5 (Fisheries) and 6 (Other anthropogenic activities) by providing the overarching harmonized policy and legal framework required to manage the basin and overcome transboundary institutional fragmentation. It also assists in the implementation of the LOWMP, specifically supporting its Measures 'Policy, regulatory and knowledge base increase measures', 'Fisheries and aquaculture pressure management measures', and 'Other measures' objectives through the 'Preparation of joint Fishery Management Plan', 'Harmonization of boating regulations (bylaws) with the pertinent EU Directives and standards', and the harmonization of 'Protected areas measures'.

[3] Component 3 services Pathway 3 (Demonstration-to-Scaling and Resilience) and addresses Barrier 3 (Operational and Structural). It assists to address all SWMIs and in particular SWMIs 1 (Point-source and diffuse water pollution), 4 (Hydromorphological alterations), 5 (Fisheries), and 6 (Other anthropogenic activities) by operationalizing priority measures through on-the-ground physical interventions and nature-based solutions to directly reduce pollution and ecosystem degradation. It also assists in the implementation of the LOWMP, specifically supporting its Measures 'Wastewater management measures', 'Agriculture - Diffuse pollution management measures', and 'Flow diversion / hydromorphological alteration management measures' objectives through the 'Construction of small-scale WWTM systems', 'Introduction of on farm agro-ecological measures for sustainable agricultural production', and 'Implementation of construction activities and measures for diverting of Sateska river'.

[4] An indicative list of criteria to be used include: (i) Ecological sensitivity: Whether the area receiving the treated effluent is a sensitive zone, such as a drinking water supply source, a protected area, or a highly sensitive ecosystem; (ii) Vulnerability: The overall vulnerability of both the natural and socio-economic components of the area receiving the effluents; (iii) Land availability: The willingness and ability of local authorities or users to provide the necessary land for installing the treatment units; (iv) Technical feasibility and applicability: How well existing technologies can be applied to the site, taking into account technical feasibility, construction costs, and the required quality of the treated effluent in relation to the receiving water body's ecological characteristics; (v) Affordability and operational capacity: The technical and financial capacity of the end users or local authorities to successfully operate and maintain the wastewater treatment unit over the long term.

[5] An indicative list of criteria to be used include: Pollution vulnerability: (i) The environmental sensitivity of the area where the cultivations are located, prioritizing high-risk areas with intensive farming that have the highest levels of diffuse nutrient emissions; (ii) Size of the farm: The number of hectares (ha) available for the activities; (iii) Financial capacity: The intended size of the related investment, the availability of the participant's own funds (or funds secured through other sources), and any subsidies they have already received; (iv) Current farming methods: The existing agricultural practices currently being used on the fields; (v) Market availability and local synergies: The existing market for the cultivated products and potential synergies with other local businesses, such as being integrated into the local tourism food supply chain; (v) Scaling potential: The type of production and its potential to be scaled up; (vi) Gender inclusion: Prioritization of agricultural businesses that are led by women.

[6] "Integrated Climate-Resilient Transboundary flood risk management of the Drin Basin" project is funded by Adaptation Fund and implemented by UNDP. Restoration and cleanup of the river Sateska old riverbed was a part of the project, supported with the cleaning of the river mouth and riverbed of Black Drim river as an integral intervention.

[7] Component 4 services Pathway 4 (Social Inclusion and Institutional Capacity) and addresses Barrier 4 (Social and Capacities). It assists to address all SWMIs by providing the cross-cutting institutional, educational, and societal foundations required for the sustainable management of the basin. It also assists in the implementation of the LOWMP, specifically supporting its Measures 'Policy, regulatory and knowledge base increase measures' and 'Public participation' objectives through 'strengthening the institutional capacity for ensuring monitoring of LOW MP and its measures implementation', 'targeted capacity development and learning programmes for authorities'.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

UNDP does not expect to play an execution role in this project. The project will be implemented in close coordination with ongoing and recent initiatives in the Lake Ohrid watershed and the wider Drin Basin, to avoid duplication, build on existing technical and institutional work, and maximize implementation synergies.

The primary coordination framework will be the Drin Coordinated Action process, the Lake Ohrid Committee, and the ongoing **GEF/UNDP/GWP Drin SAP project**. The proposed Lake Ohrid project will function as a sub-basin operationalization of the broader Drin framework by downscaling relevant basin-wide tools and processes to the specific management needs of Lake Ohrid. This includes coordination on hydrological modelling, WFD-aligned monitoring, data exchange through the Drin Information Management System, stakeholder engagement, gender mainstreaming, and **IW:LEARN knowledge exchange**.

The project will also build on the Adaptation Fund-supported transboundary flood risk management project in the Drin Basin, particularly in relation to hydrometeorological monitoring, flood risk mapping, climate resilience, and previous work on the Sateska River. Further technical synergies will be pursued with the **SEE Nexus Project, ADAPT, the SEE Multi-Hazard Early Warning Advisory System, the Dinaric Karst Aquifer System SAP project**, and relevant EU-supported initiatives on integrated water management, flood risk, Natura 2000, waste planning, and national monitoring systems. These initiatives provide technical baselines, data, methodologies, and institutional entry points that will inform project design and implementation.

The project will also coordinate with the **Prespa Ohrid Nature Trust, the Transboundary Biosphere Reserve Prespa initiative, the North Macedonia Sustainable Land Management project, GCF/GIZ and GCF/FAO readiness initiatives, and BIOFIN**, particularly in relation to protected area management, biodiversity monitoring, erosion control, stakeholder engagement, private sector engagement,

sustainable financing, and scaling of nature-based and agricultural solutions. For more detailed information see *Table 2: Related projects and initiatives and their relevance to the proposed Project*.

During the PPG phase, UNDP and GWP will further assess practical opportunities for co-location, shared technical expertise, joint use of stakeholder platforms, and coordination of staffing arrangements with relevant ongoing initiatives, where feasible and cost-effective. This may include coordinated technical experts, shared consultation processes, joint training events, harmonized data and monitoring systems, common communication products, and use of existing regional or national coordination mechanisms. These arrangements will be defined further during PPG once implementation roles, responsible partners, procurement arrangements, and work planning are clarified

Please also see section 1.3 and Table 2 on p25 in the same respect.

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
42000	0	0	0

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0	0	0	0

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
42000	0	0	0

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Lake Ohrid	16437	Natural Monument or Feature	42,000.00						

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0	0	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 3.3 Area of natural grass and woodland under restoration

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8202	0	0	0

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8,000.00			

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
202.00			

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Documents (Document(s) that justifies the HCVF)

Title

Indicator 7 Shared water ecosystems under new or improved cooperative management

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Shared water Ecosystem	Ohrid			
Count	1	0	0	0

Indicator 7.1 Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Ohrid	2			

Indicator 7.2 Level of Regional Legal Agreements and Regional management institution(s) (RMI) to support its implementation (scale of 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Ohrid	3			

Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministeral Committees (IMC; scale 1 to 4; See Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Ohrid	1			

Indicator 7.4 Level of engagement in IWLEARN through participation and delivery of key products(scale 1 to 4; see Guidance)

Shared Water Ecosystem	Rating (Expected at PIF)	Rating (Expected at CEO Endorsement)	Rating (Achieved at MTR)	Rating (Achieved at TE)
Ohrid	1			

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	36,416			
Male	34,787			

Total	71,203	0	0	0
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Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

The project draws on existing land-use and land-cover data.

CI 1 - Terrestrial protected areas created or under improved management: CI-1 will be reported for areas where management planning tools for adjacent nationally established protected areas (WDPA ID 16437) are harmonized under Output 2.1.2 (ensuring no overlap with areas counted under CI-4). These include aligning disparate management regimes and zoning systems across the borders to guide consistent ecosystem protection and sustainable resource use. At PIF stage, a tentative estimate of 42,000 hectares of terrestrial protected areas across both countries is proposed.

CI 4 - Area of landscapes under improved practices: CI-4.1 will be reported for areas (upper Sateska basin) where nature-based solutions will be applied under Output 3.1.3. for reducing diffuse nutrient loading and sedimentation. At PIF stage, an estimate of 8,000 hectares is proposed, subject to refinement during PPG once pilot areas are confirmed. Further, CI-4.3 will be reported for areas where improved agricultural and water management practices are implemented under Output 3.1.2. These include the piloting and upscaling of precision agriculture demonstrations designed to optimize water use, conserve soil, and reduce nutrient and toxic pollution runoff into the basin. At PIF stage, an estimate of 202 hectares is proposed that accounts for the agricultural area that will be covered through upscaling of the precision agricultural practices (tentatively 1/5 of the agricultural area in Ohrid lake watershed), subject to refinement during project implementation once the initial phase of pilot activities that will determine the scalability of the activities is finalized. The project will ensure that areas reported under CI4.1 and CI4.3 are spatially distinct. The ripple effect for CI-4.3 will be further calculated at PPG.

CI 7 - Number of shared water ecosystems (fresh or marine) under new or improved cooperative management: Lake Ohrid Watershed. The total of the project -all Outputs- will contribute towards achieving this indicator. The Drin Basin Transboundary Diagnostic Analysis -currently under revision through the GEF Drin SAP project- and the Lake Ohrid Watershed Management Plan (LOWMP) that plays the role of a TDA/SAP for the lake basin, provides the scientific basis for the design and implementation of the Project activities. The Project activities under Component 1 will lead to the update of the LOWMP and will be used for informing the Drin TDA (hence CI 7.1 is rated 2). With regard to the Level of National/Local reforms and active participation of Inter-Ministerial Committees these are not in place (hence CI 7.3 is rated 1) and will be developed as part of Component 2 under the coordination of the Lake Ohrid Committee (specifically Outputs 2.1.1, 2.1.2, 2.1.3, 2.1.4, and 2.1.5). This includes the development of a joint Fishery Management Plan, the harmonization of protected area tools, the updating of the LOWMP, the formulation of an overarching Master Plan and tourism development plan, and the establishment of Protocols to the Lake Ohrid Agreement. These outputs and especially Output 2.1.5. will contribute to the enhancement of the role of the existing (hence CI 7.2 is rated 3) Lake Ohrid Committee and the overall improvement of the framework for the implementation of the Lake Ohrid agreement, being the means for enhancing the Level of Regional Legal Agreements and Regional Management Institutions to support its implementation. There is no participation in IW:LEARN activities yet (hence CI 7.4 is rated 4).

CI 11 - People benefiting from GEF-financed investments disaggregated by sex: CI-11 will be reported for people benefiting from the (i) Project; at PIF stage, 71,203 beneficiaries is proposed (36,416 female and 34,787 male), which represent the total population living in the targeted Ohrid area (the municipalities of Struga, Ohrid, and Pogradec); (ii) On-the-ground demonstration pilots implemented under Component 3 (specifically Outputs 3.1.1, 3.1.2, and 3.1.3); these include community members and households directly involved in or benefiting from the construction of nature-based wastewater treatment wetlands, the introduction of precision agriculture practices, and nature-based solutions for erosion control in the Sateska sub-basin, with an estimated 15,000 individuals (7,650 female and 7,350 male). The latter figure is calculated using GIS and is subject to refinement during PPG phase once pilot areas are confirmed.

Local stakeholders and authorities will be requested during consultations to validate the practicality and acceptability of proposed interventions as well as the target values for the indicators. This will assist in ensuring local ownership and realism in targets.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Climate change is increasing the frequency and severity of natural hazards in Albania and North Macedonia, including floods, droughts, heatwaves, forest fires, erosion events, as well as increased number of extreme weather events. These risks are relevant in the project's area where altered hydrological regimes, reduced soil moisture, and rising temperatures could negatively affect ecosystem integrity, biodiversity, soil stability, and water quality of the Lake Ohrid and its tributaries. Increased wildfire incidence also poses a direct threat to forest habitats, carbon storage, and restoration investments. Extreme climate events during the project lifetime could among others affect local communities dependent on ecosystem services. Intense rainfall events increase sediment loading from the Sateska basin, potentially overwhelming pollution reduction gains. Mitigation: The project will reduce climate risks by: (i) considering the climate vulnerability assessments and adaptation measures of the National Communications to UNFCCC and of the National Adaptation Plans; (ii) delivering a hydrological/hydraulic model incorporating climate change scenarios to inform water management and abstraction limits; (iii) Embedding climate projections into the updated LOWMP and Master Plan; (iii) promoting climate-resilient sustainable agriculture, forestry and tourism management practices; (vii) incorporating adaptive management and contingency provisions to enable recovery of project interventions affected by extreme climate events.
Environmental and Social	Substantial	At the PIF stage, a preliminary Social and Environmental Screening (pre-SESP) has been completed to identify potential environmental and social risks associated with the proposed interventions. While a full Social and Environmental Screening Procedure (SESP) and Environmental and Social Management Framework (ESMF) have not yet been undertaken, the initial screening indicates that the project is likely to present substantial environmental and social risks as it is going to be implemented in the UNESCO World Heritage Site. Potential substantial risks identified at this stage include: (i) concerns related to the master plan for Lake Ohrid; and (ii) risks related to the preparation of investment documentation, safeguards scoping and future financing mobilization for the reconstruction/rehabilitation of port and waterway infrastructure in the city of Ohrid. Moderate to substantial risks are related to: an updated Lake Ohrid Management Plan; Moderate risks are related to: i) a joint Fishery Management Plan; ii) harmonization of management planning tools for protected areas; iii) Piloting and upscaling of precision agriculture in agricultural areas of the Lake Ohrid Basin; and iv) Erosion control measures. During the project preparation phase, a full SESP will be conducted in line with UNDP Social and Environmental Standards to further assess risks and define appropriate mitigation measures. An ESMF, including a Grievance Redress Mechanism, will be prepared as required. The project will ensure inclusive stakeholders, engagement engaging local communities, throughout design and implementation, comply with the national legal and regulatory frameworks in

		both countries, and promote non-discriminatory participation through project governance structures. Participatory planning, benefit-sharing, and communication strategies will help manage these risks. Consultations and engagement with small scale farmers, fishermen and women, informal resource users and vulnerable population will be ensured identify potential livelihood impacts and mitigation measures including alternative livelihoods
Political and Governance	Moderate	Political and governance risks relate primarily to potential shifts in policy priorities, institutional leadership changes both in Albania and North Macedonia, and coordination challenges among the two countries regarding the joint planning and management of the shared water body. Changes in government priorities, administrative restructuring, or turnover at national and municipal levels during the project period could delay or slow down the implementation of the project or weaken trans-boundary collaboration. Mitigation: The project will reduce governance risks by: (i) anchoring the activities within existing national legal frameworks, and the EU accession processes to ensure continuity beyond electoral cycles; (ii) institutionalizing cooperation via signed protocols and alignment with EU accession priorities; (iii) embedding project interventions within formal planning and budgeting processes in both countries to enhance institutional ownership and sustainability; (iv) strengthen the Lake Ohrid Committee to a higher executive level to ensure continuity across administrations; (v) maintaining continuous engagement with both political leadership and technical staff to ensure institutional memory and operational continuity during potential administrative changes.

INNOVATION

Institutional and Policy	Moderate	North Macedonia and Albania have relatively established legal and policy frameworks relevant to environment protection and biodiversity conservation aligned with EU and international environmental agreements. However, there remains a moderate risk that existing policies may not be fully operationalized or sufficiently harmonized across sectors which can result in fragmented implementation and weak coordination. In addition, the transboundary governance bodies are not fully playing their role as a coordinator and promotor of harmonized policies and joint strategies that will contribute to the improved management of the Lake Ohrid Basin. Mitigation: The project will address these risks by: (i) supporting the development of a master plan for Lake Ohrid that will integrate protected area management plans, fisheries management plan, tourism development plan, and presenting the plan for adoption to the Lake Ohrid Committee and the municipalities in the Lake Ohrid; (ii) promoting transboundary governance and supporting the Lake Ohrid Committee; (iii) developing Protocols to the Lake Ohrid Agreement related to (i) monitoring and information exchange, (ii) fisheries management and (iii) tourism; (iv) building institutional capacities across relevant ministries, protected area authorities, and municipal stakeholders to support integrated ecosystem management in the Lake Ohrid Basin;
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Technological	Low	The project includes solutions related to precision agriculture and nature nature-based erosion control that are technically mature and context-adapted. However, they still might pose some risk related to construction (for the constructed wetland and erosion measures), risk of pollutant release and risks to critical habitats and biodiversity. There is also a risk of insufficient capacities on local level to operationalize and maintain the established measures. Mitigation: The project will address these risks by: (i) prioritizing the use of technically mature, internationally validated tools and methodologies adapted to national conditions; (ii) strengthening technical capacity of national and local institutions through targeted training; (iii) ensuring close collaboration with national research institutions and technical partners in system design and implementation; (vi) promoting knowledge exchange and adaptive learning to enable refinement of technical solutions over the project lifecycle.
Financial and Business Model	Moderate	There is a moderate risk related to the long-term financial sustainability of the project interventions beyond the project period. Protected area authorities, municipalities, and sectoral agencies operate under constrained public budgets, and conservation financing remains limited and fragmented. Moreover, funding allocated by the countries for operations of the Lake Ohrid Committee is very limited and often dependent on donor support. Mitigation: The project will mitigate these risks by: (i) focusing on realistic, context-appropriate interventions aligned with national policies and institutional mandates; (ii) embedding financing considerations within various plans that will be developed with the support of the project; (iii) promoting the project results to create opportunities to further leverage existing public funding streams and to attract donor co-financing to support continuity of key project results.

EXECUTION

Capacity	Low	Both the implementing and executing agencies (UNDP and GWP) have considerable experience in designing and implementing projects that meet national biodiversity and climate change goals, also corresponding to international conventions of which Albania and North Macedonia are signatory parties. Moreover, they have vast experience in promoting transboundary cooperation for the sustainable management of shared natural resources, and in the specific region in particular (extended Drin River Basin to which Lake Ohrid belongs). Regarding capacities of local stakeholders, some gaps exist in technical, coordination, and enforcement capacity at municipal and agency levels. These will be addressed through training, technical assistance, and inter-agency coordination mechanisms.
Fiduciary	Low	GWP has undergone a micro-assessment for the implementation of the GEF Drin SAP project. It has demonstrated sound fiduciary performance checked through annual audits during the implementation of the foundational GEF Drin I Project.

Stakeholder	Low	Diverse and sometimes competing stakeholder interests (e.g., hydropower vs ecological flows, tourism vs conservation, agriculture vs, conservation, traditional vs. commercial fisheries) could affect implementation. The project includes stakeholder engagement, gender action, and communication strategies to manage expectations and build consensus. The design of the respective component builds on the broad and deep experience of UNDP and GWP in such activities, demonstrated in the successful implementation of GEF projects. UNDP's Social and Environmental safeguards contain the necessary activities to identify and manage such risks and ensure inclusivity.
Other		N/A. Safeguards Rating (PIF level): The project is expected to yield significant environmental and social benefits through ecosystem restoration, improved governance, and pollution reduction. However, several activities (e.g., construction of wetlands, reforestation, fisheries regulation, and tourism planning) may have localized environmental or social impacts, particularly during implementation. These impacts are likely to be site-specific, reversible, and manageable with mitigation measures. As such, the project will be required to: • Conduct an Environmental and Social Management Plan (ESMP) during the project preparation phase. • Undertake stakeholder consultations, including affected communities and vulnerable groups. • Apply gender and inclusion safeguards, aligned with GEF policies. No activities are expected to result in involuntary resettlement, significant habitat loss, or impact on indigenous peoples, and the project will avoid environmentally sensitive areas unless explicitly planned and managed under existing protected area frameworks.
Overall Risk Rating	Substantial	The experience of the implementing and executing agencies (both thematically and geographically) and the resources available to them, the consultation with and engagement of key stakeholders, indicate a partial moderate overall risk in terms of project implementation. The assigning of overall risk as substantial is due to the substantial risk related to the environmental and social risks.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

The proposed project aligns closely with IW Objective 3 under the GEF-8 International Waters (IW) Focal Area.

The project contributes to enhanced water security by safeguarding Lake Ohrid's hydrological integrity and water quality. Key threats-such as nutrient pollution, altered hydrological regimes, and sediment transport disruption are tackled through integrated watershed planning and demonstration of scalable mitigation measures. The updated lake water balance and water quality monitoring system will incorporate climate change considerations, informing adaptive water management strategies.

By strengthening transboundary coordination mechanisms and legal instruments (including formal protocols under the Lake Ohrid Agreement), the project fosters long-term cooperation between riparian states and supports improved resilience of the freshwater system.

The project is also aligned with Objective 1. Avoid and reduce land degradation through sustainable land management (SLM) and Objective 2. Reverse land degradation through landscape restoration under the GEF 8 Land Degradation Focal Area and Objective 1. To improve conservation, sustainable use, and restoration of natural ecosystems under the GEF 8 Biodiversity Focal Area.

Overall, the project embodies the core GEF-8 IW programming principles: it is demand-driven, strengthens governance, and enhances both ecological and socio-economic resilience in a globally significant transboundary basin.

Further, the proposed project contributes primarily to 6 of the 23 Kunming-Montreal Global Biodiversity Framework (KM-GBF) targets, and significantly to further 6 Targets, as outlined below.

Primary contributions:

- Target 1 - Plan and Manage all Areas to Reduce Biodiversity Loss

The project contributes to this Target through three interlocking instruments: the updated Lake Ohrid Watershed Management Plan aligned with EU WFD requirements; the new Lake Ohrid Master Plan that will integrate environmental, social and economic priorities to guide spatial planning coherently across both countries; and the harmonization of management and planning tools for geographically adjacent nationally established protected areas in the watershed (Output 2.1.2) which covers protected areas currently fragmented by incompatible national protection levels, management regimes and spatial plans. The Transboundary protocols covering monitoring, fisheries and tourism development (Output 2.1.5) will further strengthen the spatial governance architecture for biodiversity protection at the basin level.

- Target 2 - Restore 30% of all Degraded Ecosystems

The project contributes to this target primarily through activities on nature-based solutions for erosion control in the Sateska basin in North Macedonia (Output 3.1.3), which will bring approximately 8,000 hectares under ecological restoration. The construction of engineered wetlands for wastewater treatment (Output 3.1.1) represents a further ecosystem restoration investment, restoring the water purification and nutrient filtration functions that have been lost as natural lakeside wetlands have been degraded or destroyed. The rehabilitation of port and waterway infrastructure (Output 3.1.4) also contributes to restoring the ecological condition of the nearshore environment.

- Target 3 - Conserve 30% of Land, Waters and Seas

The project's target of 42,000 hectares of terrestrial protected areas under improved management corresponds to Target 3's requirement that areas be under effective conservation and management, not merely designated. The harmonization of management tools for adjacent protected areas across the two countries (Output 2.1.2) is specifically designed to work towards governance effectiveness, including harmonized zoning and coordinated enforcement. The project also supports the institutional reforms needed to apply consistent management across the transboundary property.

- Target 7 - Reduce Pollution to Levels That Are Not Harmful to Biodiversity

The proposed project aligns with Target 7's requirement to reduce excess nutrients, pesticides, plastic waste and other pollution to levels not harmful to biodiversity by 2030. The project addresses eutrophication and toxic pollution -identified as the biggest threat to Lake Ohrid's endemic biodiversity- through multiple complementary interventions: Constructed wetlands treat point-source wastewater before it reaches the lake. Precision agriculture demonstrations aim to reduce the nutrient and pesticide loading from the watershed's fertilized agricultural land. Nature-based solutions in the Sateska basin reduces the sediment and nutrient loading from eroded catchments. Port infrastructure improvements catalyzed through increasing the maturity of the intervention will enable the reduction of hydrocarbon and solid waste pollution from boating. Surveillance and investigative pollution monitoring provides the evidence base for further pollution management actions.

- Target 9 - Manage Wild Species Sustainably to Benefit People

The project makes a direct contribution to Target 9 through its fisheries-related activities. A joint fish stock assessment (Output 1.1.3) will provide the first transboundary, scientifically robust baseline of the status of Lake Ohrid's endemic fish populations -including the critically important Ohrid Trout and Belvica- that is needed to set evidence-based fishing quotas, minimum catchable sizes, gear restrictions and seasonal bans. Building on this, the Joint Fishery Management Plan (Output 2.1.1) will create the bilateral governance instrument for sustainable fishing that has been absent despite years of need. Training and equipment to enhance illegal fishing monitoring and control (Output 3.1.5) will provide the on-the-ground enforcement capacity to make the management plan effective.

- Target 10 - Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries, and Forestry

The project addresses all four sectors named in Target 10. In agriculture, precision agriculture demonstrations will introduce improved practices across approximately 8,000 hectares to reduce nutrient and pesticide runoff while maintaining productivity. In fisheries, the joint management plan and enforcement programme address the overexploitation and illegal fishing that are threatening endemic species. In aquaculture, the fisheries management plan will include measures to address allochthonous species related impacts. In forestry, the nature-based solutions for erosion control in the Sateska basin directly restores and improves forest land management.

Significant contributions:

- Target 4 - Halt Species Extinction, Protect Genetic Diversity, and Manage Human-Wildlife Conflicts

The fisheries-related activities of the project -fish stock assessment, joint management plan, and enforcement capacity- directly address human-induced extinction risk for the Ohrid Trout and Belvica species by creating the governance conditions for population recovery. The monitoring programme (Output 1.1.3) will also establish reference conditions for the lake's broader community of endemic species including invertebrates, providing the scientific basis for managing against further loss of genetic diversity. Addressing pollution will tackle a pressure leading the deterioration of the system possibly leading to species extinction.

- Target 5 - Ensure sustainable, legal and safe harvesting of wild species

The project's illegal fishing enforcement strand (Output 3.1.5) is a direct contribution, providing equipment and gender-sensitive training to authorities in both countries to monitor and control illegal fishing of endemic species. The joint fishery management plan establishing common minimum catchable sizes, fishing quotas and gear regulations will define the legal sustainable harvest levels to which enforcement must apply. Awareness campaigns for fishermen and their associations to promote compliance with the new management framework further reinforce this target.

- Target 8 - Minimize the Impacts of Climate Change on Biodiversity and Build Resilience

The project's hydrological and hydraulic modelling work (Output 1.1.2) explicitly incorporates climate change projections into the water balance for Lake Ohrid for the first time, addressing a significant deficiency in current management in both countries. This model will enable climate-informed water management that protects the ecological conditions on which endemic biodiversity depends. The Master Plan is intended to guide spatial planning in ways that build ecosystem resilience.

- Target 11 - Restore, maintain and enhance nature's contributions to people

The project contributes through constructed wetlands that restore water purification and nutrient cycling services lost due to the destruction of natural wetlands; through nature-based solutions that enables erosion control, water regulation and carbon sequestration in the Sateska catchment; through fisheries management that sustains the provisioning service of wild fish populations; through protected area management that maintains the biodiversity underpinning nature-based tourism; and through monitoring systems that provide the knowledge base for tracking ecosystem service delivery. The Master Plan is designed explicitly to integrate environmental, social and economic priorities, which in practice means embedding ecosystem service valuation into spatial planning decisions.

- Target 14 - Integrate biodiversity into decision-making across at every level

The updated LOWMP will incorporate biodiversity objectives alongside water quality and quantity objectives within a single integrated planning instrument. The Master Plan for Lake Ohrid will embed biodiversity considerations into spatial planning for both countries simultaneously. The harmonization of protected area management tools will embed biodiversity standards into planning frameworks for nearly half of the watershed's land area. Capacity building for authorities will ensure that biodiversity-integrated planning instruments are operationally applied.

- Target 21 - Ensure that knowledge is available and accessible to guide biodiversity action

The project makes a strong contribution through Output 1.1.1 (surveillance and investigative monitoring including establishment of reference conditions for ecological status aligned with WFD), Output 1.1.2 (hydrological and hydraulic models), Output 1.1.3 (transboundary monitoring programme), Output 1.1.4 (joint fish stock assessment), and the information exchange protocols and use of the Drin Information Management System. The transboundary monitoring programme will, for the first time, make lake-wide data consistently available to decision-makers in both countries. The project's knowledge management outputs (Output 4.1.3), including participation in IW:LEARN and preparation of knowledge products, will further widen access to learning from the project.

Finally, the project also aligns with Country and Regional Priorities:

- The project aligns with both Albania's and North Macedonia's EU accession agendas, particularly through assisting towards the implementation of the EU Water Framework Directive (WFD) and strengthening of national institutions to meet EU environmental acquis.
- The project also contributes to meeting UN Sustainable Development Goals (SDGs), especially SDG 6 (Clean Water), SDG 14 (Life Below Water), and SDG 15 (Life on Land).
- The project supports both countries' National Biodiversity Strategies, which prioritize the conservation of inland aquatic ecosystems and better integration of biodiversity into planning processes.
- Regionally, the project supports the Drin Coordinated Action (Drin CORDA) for the implementation of the Drin MoU process and implements priority measures from the Drin Strategic Action Programme (SAP) endorsed by both countries. It is closely aligned with transboundary cooperation frameworks supported by the GEF, UNECE Water Convention, and international donors (e.g., EU IPA).

- The project also responds to commitments under the UNESCO World Heritage Convention, given Lake Ohrid's designation, and builds upon efforts initiated by the UNESCO-IUCN Management Plans and the GEF/UNDP/GWP Drin project.
- The Project also aims to assist the riparian countries in fulfilling their obligations under the UN Convention to Combat Desertification (UNCCD) and in particular towards meeting (in the case of Albania) or setting (in the case of North Macedonia) Land Degradation Neutrality (LDN) targets.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations:

Private Sector:

Provide a brief summary and list of names and dates of consultations

National authorities were consulted for the design, structure and content of the project. Related perspectives and priorities were discussed in missions that GWP-Med had:

- in North Macedonia on 25-27 November 2024, including meetings with the Deputy Minister of Environment and Physical Planning and representatives from the Water and Nature Units, the Ministry of Transport and Communication, the Ministry of Agriculture (Fisheries Sector), the Hydro-Med Institute, the Faculty of Forestry (Reforestation department).
- in Albania on 2-3 December 2024, including meetings with representatives from the Water Resources Management Agency (AMBU), the National Agency for Protected Areas (NAPA), the Water Supply and Sewerage Association of Albania (SHUKALB) and the Institute of GeoSciences (IGEO).

Further, the structure and content of the proposed project was discussed and consulted with the appointed representatives of Albania and North Macedonia to the Drin Core Group and its four Expert Working Groups at the margins of the meetings listed below. Further, the structure and content of the proposed project was discussed as part of the meetings of the Expert Working Groups of the Drin Core Group to ensure coordination with the Drin CORDA process and full alignment with the GEF Drin Project.

- Expert Working Groups of the Drin Core Group comprising 46 representatives (25 women and 21 men) of institutions from the Drin Riparians (26 March 2025, Tirana)
- Drin Core Group meeting comprising 8 representatives, (5 women and 3 men) (27 March 27, 2025, Tirana)
- Expert Working Groups of the Drin Core Group comprising 46 representatives (25 women and 21 men) of institutions from the Drin Riparians (25 November 2025, Skopje)
- Drin Core Group meeting comprising 8 representatives, (5 women and 3 men) (26 November 2025, Skopje).

The revised PIF was discussed and consulted during the closure meeting of the regional project “Integrated Climate Resilient Transboundary Flood Risk Management in the Drin River Basin (Albania, North Macedonia, Montenegro)”, that was held on 17 April 2026 in Tirana, with the members of the Drin Group that participate in this AF Project Board.

The revised PIF was presented and further consulted with stakeholders during a two hours session in the framework of the 10th Drin Stakeholders Conference in Struga, Ohrid, North Macedonia, on 4 June 2026. A film was used to communicate the need for action ([The Plan to Save Europe's Oldest Lake.mp4](#)) and a presentation introduced the *actions - that would be possibly supported by the GEF- to address environmental and socio-economic pressures on the basin and strengthening the sustainable management of Lake Ohrid watershed*. A moderated discussion enabled feedback from the stakeholders regarding the development of scientific knowledge to drive transboundary governance reforms, including new joint plans as well as the means to use to bridging macro-level policies with localized nature-based solutions to strengthen the region's overall water security. The stakeholders appreciated the effort and agreed that the theory of change and planned project structure and activities are the appropriate and necessary means to address the identified root causes of environmental degradation, implement the priorities of the Lake Ohrid Watershed Management Plan, and enable effective transboundary management. During the session, stakeholders were provided with an overview of the GEF project cycle, including the preparation and approval process. It was clarified that upon GEF approval of the Lake Ohrid PIF, further inclusive consultations will take place during the Project Preparation Grant (PPG) phase to formulate the detailed project design. The consultation engaged a total of 67 stakeholder representatives (34 female and 33 male) from across the Drin Riparians, including 18 (11 female and 7 male) from North Macedonia and 10 (7 female and 3 male) from Albania. Having the perspectives of stakeholders from beyond the immediate Lake Ohrid littoral countries was beneficial both for the project structure discussions and for strengthening strategic linkages with the wider Drin Basin level.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNDP	GET	Regional	International Waters	International Waters: IW-1	Grant	3,170,280.00	301,175.00	3,471,455.00
UNDP	GET	North Macedonia	Biodiversity	BD STAR Allocation: BD-2	Grant	228,963.00	21,751.00	250,714.00
UNDP	GET	North Macedonia	Land Degradation	LD STAR Allocation: LD-1	Grant	651,669.00	61,909.00	713,578.00
Total GEF Resources (\$)						4,050,912.00	384,835.00	4,435,747.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

150000

PPG Agency Fee (\$)

14250

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNDP	GET	Regional	International Waters	International Waters: IW-1	Grant	117,390.00	11,152.00	128,542.00
UNDP	GET	North Macedonia	Biodiversity	BD STAR Allocation: BD-2	Grant	8,480.00	806.00	9,286.00
UNDP	GET	North Macedonia	Land Degradation	LD STAR Allocation: LD-1	Grant	24,130.00	2,292.00	26,422.00
Total PPG Amount (\$)						150,000.00	14,250.00	164,250.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
UNDP	GET	North Macedonia	Biodiversity	BD STAR Allocation	260,000.00
UNDP	GET	North Macedonia	Land Degradation	LD STAR Allocation	740,000.00
Total GEF Resources					1,000,000.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
IW-1-1	GET	3,170,280.00	26715351
BD-2-1	GET	228,963.00	1090433
LD-1	GET	651,669.00	2950000
Total Project Cost		4,050,912.00	30,755,784.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Environment and Physical Planning, Noth Macedonia	Public Investment	Investment mobilized	9000000
Recipient Country Government	Ministry of Environment and Physical Planning, Noth Macedonia	In-kind	Recurrent expenditures	256384
Recipient Country Government	Ministry of Agriculture, Forestry and Water Economy, Noth Macedonia	Public Investment	Investment mobilized	4500000
Recipient Country Government	Ministry of Agriculture, Forestry and Water Economy, Noth Macedonia	In-kind	Recurrent expenditures	200000
Recipient Country Government	Ministry of Transport and communications, North Macedonia	Public Investment	Investment mobilized	2000000
Recipient Country Government	Ministry of Transport and communications, North Macedonia	In-kind	Recurrent expenditures	100000
Recipient Country Government	Municipality of Ohrid, North Macedonia	Public Investment	Investment mobilized	3853957
Recipient Country Government	Municipality of Ohrid, North Macedonia	In-kind	Recurrent expenditures	145443
Recipient Country Government	Municipality of Struga, North Macedonia	Public Investment	Investment mobilized	4080000
Recipient Country Government	Municipality of Struga, North Macedonia	In-kind	Recurrent expenditures	120000
Recipient Country Government	Public Enterprise "Nacional Forests", North Macedonia	In-kind	Recurrent expenditures	1000000
Recipient Country Government	Public Enterprize "National Forests, North Macedonia"	In-kind	Recurrent expenditures	500000
Donor Agency	Prespa Ohrid Nature Trust PONT MKD (Albania)	Grant	Investment mobilized	1500000
Donor Agency	Civvica Swiss	Grant	Investment mobilized	100000
Private Sector	Chamber of Commerce/ Skopje Brewery, North Macedonia	Grant	Investment mobilized	400000
GEF Agency	UNDP CO North Macedonia	Grant	Investment mobilized	1000000

Others	Global Water Partnership	In-kind	Recurrent expenditures	500000
Recipient Country Government	Ministry of Environment of Albania	Public Investment	Investment mobilized	1500000
Total Co-financing				30,755,784.00

Describe how any "Investment Mobilized" was identified

Notes:

(i.) Ministry of Environment and Physical Planning, North Macedonia - An IPA project that aims to develop flood risk plans for river basins, allocating approximately 500,000 USD to the Drin River Basin and Lake Ohrid sub-basin. The IPA project "Further support of the reforms in Water sector" will invest 500,000 USD in sustainable drinking water and wastewater improvements for the Lake Ohrid region. The project "Improving Water Infrastructure in North Macedonia", funded by a €50 million EIB loan, will support municipal projects. Struga and Ohrid are set to receive approximately 8 million USD to enhance water and wastewater infrastructure in the Ohrid Lake region.

(ii.) Ministry of Agriculture, Forestry and Water Economy, North Macedonia - 1. Water Economy Programme: State-funded, annual budget of 8 million USD, focused on irrigation, dams, drainage, and agricultural water infrastructure; 1 million USD allocated for Ohrid Lake area. 2. Forestry Programme: State-funded, yearly budget of 10–15 million USD for forest protection, afforestation, fire prevention, and sustainable management; 1 million USD for Ohrid Lake area. 3. Fisheries and Aquaculture Programme: State-funded, annual budget of 1–2 million USD for fish stock management, aquaculture, restocking (including Ohrid trout), monitoring, and anti-poaching; 750,000 USD for Ohrid Lake region. 4. Agriculture Modernization Project: World Bank loan and state-funded, total budget of 46 million USD for supply chain modernization, advisory services, and institutional strengthening; 750,000 USD for Ohrid Lake region. 5. IPARD III Programme: EU and state-funded, total budget of 97 million USD for farm investments, food processing, rural tourism, environmental and climate measures, and rural economy diversification; 1 million USD for Ohrid Lake region.

(iii.) Ministry of Transport and communications, North Macedonia - The Vranishta WWTP project in Struga aims to upgrade the plant treating wastewater from Ohrid and Struga before it enters the Crn Drim river, with a budget of 2 million USD.

(iv.) Municipality of Ohrid, North Macedonia - 1. Reconstruction of a linear infrastructure facility for faecal and atmospheric sewage network for part of Malesija Street, Aleksandar Gusho, Trajche Dojchinovski, Prvi Maj, Vangel Nikoloski, Debarca and Momchilo Jordanovski – 553,706 USD. 2. Basic project for monitoring and management of the SCADA system for the water supply system of the city of Ohrid and development of a GIS system with integration of both systems – 1,174,780 USD. 3. Project for replacing the existing pumping and sewage treatment station "Metropol" of the municipality of Ohrid – 751,438 USD. 4. Project for reconstruction of the water supply line on ul. Klenoec – 554,913 USD. 5. Implementation of a project for line infrastructure for the primary sewage network from Dolno Lakočerej to the connecting shaft at Altanin Bridge – 819,720 USD.

(v.) Municipality of Struga, North Macedonia - 1. The central Struga water supply system is being upgraded with 1.5 million USD from the state budget. 2. The Southwest Region's Solid Waste Management System, funded by EBRD and the national budget (total 55 million USD), will invest an estimated 2.58 million USD in Struga for landfill, recycling, and waste transfer infrastructure.

(vi.) Prespa Ohrid Nature Trust PONT - 1. PONT provides annual grants of 3 million USD to support protected area management, with 1 million USD allocated to the Ohrid lake region. 2. PONT also funds environmental actors with 17 million USD for NGOs and community conservation, with 500,000 USD invested in the Ohrid Lake region.

(vii.) Civvica Swiss - Grant programs for biodiversity protection (reed belt study), NGO support, conservation activities, and capacity building.

(viii.) Chamber of Commerce/ Skopje Brewery, North Macedonia - Private companies, including Pivara Skopje Doo, support the protection of Ohrid Lake. Pivara Skopje Doo donates 1 MKD per bottle sold towards environmental activities, and with an annual production of 200 million bottles, their yearly contribution is estimated at 380,000 USD. Total private sector donations over three years are expected to reach 400,000 USD.

(ix.) UNDP - The "EU for Prespa" Programme, financed by the European Union and implemented by UNDP North Macedonia, has a total budget of approximately €16 million. The project aims to promote the Green Agenda for the Western Balkans within the transboundary Lake Prespa basin. It contributes to the preservation and improvement of the local ecological system through a series of interlinked capital investments, such as municipal wastewater and solid waste management systems. Additionally, it implements targeted measures to address water and soil pollution, protect endangered species, and encourage sustainable local economic and agricultural practices. Furthermore, the project will enhance transboundary cooperation while improving connectivity and mobility around the lake. Given the scientifically proven underground hydraulic connection between the two water bodies, and the nutrient pollution 'exported' from Prespa to Ohrid improvements in the water quality of Lake Prespa will directly contribute to enhancing the water quality of Lake Ohrid. Co-financing from this project is estimated at 1 M USD.

(x) Ministry of Environment of Albania – An EU funded project contributes to the protection and conservation of at least 25 per cent of the Albanian territory (at land and at sea) by 2030 through the establishment and the effective management of a system of Protected Areas, including NATURA 2000 sites and other effective area-based conservation measures. Activities to support strengthened capacities of the relevant institutions to effectively manage Protected Areas (PAs) according to the EU acquis and best practices, establish a performance monitoring system and support civil society for environmental protection and restoration of protected areas, cover the Lake Ohrid Watershed. Co-financing from this project is estimated at 1,5 M USD.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	UNDP	12/18/2025	Nancy Bennet	+19177746577	nancy.bennet@undp.org
Project Coordinator	UNDP	12/18/2025	Mr. Stamatios Christopoulos		stamatios.christopoulos@undp.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Betim Lamallari	GEF Operational Focal Point	Ministry of Environment and Physical Planning, Republic of North Macedonia	12/18/2025
Ledina Beqiraj Agalliu	GEF Operational Focal Point Secretary General	Ministry of Environment Albania	12/18/2025

ANNEX C: PROJECT LOCATION

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



Map 1. Lake Ohrid Basin

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

PIMS_10345_SESP Pre-Screening-Lake Ohrid_revised_20260526

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
No Contribution 0	Significant Objective 1	Principal Objective 2	Significant Objective 1

ANNEX F: TAXONOMY WORKSHEET

TAXONOMY WORKSHEET

<<Table below for now taken from GEF-7 PIF>>

Level 1	Level 2	Level 3	Level 4
☒ Influencing models			
	☒ Transform policy and regulatory environments		
	☒ Strengthen institutional capacity and decision-making		
	☒ Convene multi-stakeholder alliances		
	☒ Demonstrate innovative approaches		
	☐ Deploy innovative financial instruments		
☒ Stakeholders			
	☐ Indigenous Peoples		
	☒ Private Sector		
		☐ Capital providers	
		☐ Financial intermediaries and market facilitators	
		☐ Large corporations	
		☒ SMEs	
		☒ Individuals/Entrepreneurs	
		☐ Non-Grant Pilot	
		☐ Project Reflow	
	☒ Beneficiaries		
	☒ Local Communities		
	☒ Civil Society		
		☐ Community Based Organization	
		☒ Non-Governmental Organization	
		☒ Academia	
		☐ Trade Unions and Workers Unions	
	☒ Type of Engagement		
		☒ Information Dissemination	
		☒ Partnership	
		☒ Consultation	
		☒ Participation	
	☒ Communications		
		☒ Awareness Raising	
		☐ Education	
		☐ Public Campaigns	
		☐ Behavior Change	

☒ Capacity, Knowledge and Research			
	☐ Enabling Activities		
	☒ Capacity Development		
	☒ Knowledge Generation and Exchange		
	☐ Targeted Research		
	☐ Learning		
		☐ Theory of Change	
		☐ Adaptive Management	
		☐ Indicators to Measure Change	
	☐ Innovation		
	☒ Knowledge and Learning		
		☒ Knowledge Management	
		☐ Innovation	
		☒ Capacity Development	
		☒ Learning	
	☒ Stakeholder Engagement Plan		
☒ Gender Equality			
	☒ Gender Mainstreaming		
		☒ Beneficiaries	
		☒ Women groups	
		☒ Sex-disaggregated indicators	
		☐ Gender-sensitive indicators	
	☒ Gender results areas		
		☐ Access and control over natural resources	
		☒ Participation and leadership	
		☒ Access to benefits and services	
		☒ Capacity development	
		☒ Awareness raising	
		☐ Knowledge generation	
☒ Focal Areas/Theme			
	☐ Integrated Programs		
		☐ Commodity Supply Chains (¹ Good Growth Partnership)	
			☐ Sustainable Commodities Production
			☐ Deforestation-free Sourcing
			☐ Financial Screening Tools
			☐ High Conservation Value Forests
			☐ High Carbon Stocks Forests
			☐ Soybean Supply Chain
			☐ Oil Palm Supply Chain
			☐ Beef Supply Chain
			☐ Smallholder Farmers
			☐ Adaptive Management
		☐ Food Security in Sub-Sahara Africa	
			☐ Resilience (climate and shocks)
			☐ Sustainable Production Systems
			☐ Agroecosystems
			☐ Land and Soil Health
			☐ Diversified Farming
			☐ Integrated Land and Water Management
			☐ Smallholder Farming

			☐ Small and Medium Enterprises
			☐ Crop Genetic Diversity
			☐ Food Value Chains
			☐ Gender Dimensions
			☐ Multi-stakeholder Platforms
		☐ Food Systems, Land Use and Restoration	
			☐ Sustainable Food Systems
			☐ Landscape Restoration
			☐ Sustainable Commodity Production
			☐ Comprehensive Land Use Planning
			☐ Integrated Landscapes
			☐ Food Value Chains
			☐ Deforestation-free Sourcing
			☐ Smallholder Farmers
		☐ Sustainable Cities	
			☐ Integrated urban planning
			☐ Urban sustainability framework
			☐ Transport and Mobility
			☐ Buildings
			☐ Municipal waste management
			☐ Green space
			☐ Urban Biodiversity
			☐ Urban Food Systems
			☐ Energy efficiency
			☐ Municipal Financing
			☐ Global Platform for Sustainable Cities
			☐ Urban Resilience
	☒ Biodiversity		
		☒ Protected Areas and Landscapes	
			☒ Terrestrial Protected Areas
			☐ Coastal and Marine Protected Areas
			☒ Productive Landscapes
			☐ Productive Seascapes
			☐ Community Based Natural Resource Management
		☐ Mainstreaming	
			☐ Extractive Industries (oil, gas, mining)
			☐ Forestry (Including HCVF and REDD+)
			☒ Tourism
			☒ Agriculture & agrobiodiversity
			☒ Fisheries
			☐ Infrastructure
			☐ Certification (National Standards)
			☐ Certification (International Standards)
		☐ Species	
			☐ Illegal Wildlife Trade
			☒ Threatened Species
			☐ Wildlife for Sustainable Development
			☐ Crop Wild Relatives
			☐ Plant Genetic Resources
			☐ Animal Genetic Resources
			☐ Livestock Wild Relatives
			☒ Invasive Alien Species (IAS)
		☒ Biomes	

			☐ Mangroves
			☐ Coral Reefs
			☐ Sea Grasses
			☒ Wetlands
			☒ Rivers
			☒ Lakes
			☐ Tropical Rain Forests
			☐ Tropical Dry Forests
			☐ Temperate Forests
			☐ Grasslands
			☐ Paramo
			☐ Desert
		☐ Financial and Accounting	
			☐ Payment for Ecosystem Services
			☐ Natural Capital Assessment and Accounting
			☐ Conservation Trust Funds
			☐ Conservation Finance
		☐ Supplementary Protocol to the CBD	
			☐ Biosafety
			☐ Access to Genetic Resources Benefit Sharing
	☐ Forests		
		☐ Forest and Landscape Restoration	
			☐ REDD/REDD+
		☐ Forest	
			☐ Amazon
			☐ Congo
			☐ Drylands
	☒ Land Degradation		
		☒ Sustainable Land Management	
			☒ Restoration and Rehabilitation of Degraded Lands
			☒ Ecosystem Approach
			☐ Integrated and Cross-sectoral approach
			☐ Community-Based NRM
			☒ Sustainable Livelihoods
			☐ Income Generating Activities
			☒ Sustainable Agriculture
			☐ Sustainable Pasture Management
			☐ Sustainable Forest/Woodland Management
			☒ Improved Soil and Water Management Techniques
			☐ Sustainable Fire Management
			☐ Drought Mitigation/Early Warning
		☐ Land Degradation Neutrality	
			☐ Land Productivity
			☐ Land Cover and Land cover change
			☐ Carbon stocks above or below ground
		☐ Food Security	
	☒ International Waters		
		☐ Ship	
		☐ Coastal	
		☒ Freshwater	
			☐ Aquifer
			☐ River Basin
			☒ Lake Basin

		☒ Learning	
		☐ Fisheries	
		☐ Persistent toxic substances	
		☐ SIDS : Small Island Dev States	
		☐ Targeted Research	
		☒ Pollution	
			☐ Persistent toxic substances
			☐ Plastics
			☒ Nutrient pollution from all sectors except wastewater
			☒ Nutrient pollution from Wastewater
		☐ Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		☒ Strategic Action Plan Implementation	
		☐ Areas Beyond National Jurisdiction	
		☐ Large Marine Ecosystems	
		☒ Private Sector	
		☐ Aquaculture	
		☐ Marine Protected Area	
		☐ Biomes	
			☐ Mangrove
			☐ Coral Reefs
			☐ Seagrasses
			☐ Polar Ecosystems
			☐ Constructed Wetlands
	☐ Chemicals and Waste		
		☐ Mercury	
		☐ Artisanal and Scale Gold Mining	
		☐ Coal Fired Power Plants	
		☐ Coal Fired Industrial Boilers	
		☐ Cement	
		☐ Non-Ferrous Metals Production	
		☐ Ozone	
		☐ Persistent Organic Pollutants	
		☐ Unintentional Persistent Organic Pollutants	
		☐ Sound Management of chemicals and Waste	
		☐ Waste Management	
			☐ Hazardous Waste Management
			☐ Industrial Waste
			☐ e-Waste
		☐ Emissions	
		☐ Disposal	
		☐ New Persistent Organic Pollutants	
		☐ Polychlorinated Biphenyls	
		☐ Plastics	
		☐ Eco-Efficiency	
		☐ Pesticides	
		☐ DDT - Vector Management	
		☐ DDT - Other	
		☐ Industrial Emissions	
		☐ Open Burning	
		☐ Best Available Technology / Best Environmental Practices	
		☐ Green Chemistry	
	☐ Climate Change		
		☐ Climate Change Adaptation	
			☐ Climate Finance
			☐ Least Developed Countries

			☐ Small Island Developing States
			☐ Disaster Risk Management
			☐ Sea-level rise
			☐ Climate Resilience
			☐ Climate information
			☐ Ecosystem-based Adaptation
			☐ Adaptation Tech Transfer
			☒ National Adaptation Programme of Action
			☐ National Adaptation Plan
			☐ Mainstreaming Adaptation
			☐ Private Sector
			☐ Innovation
			☐ Complementarity
			☐ Community-based Adaptation
			☒ Livelihoods
		☐ Climate Change Mitigation	
			☐ Agriculture, Forestry, and other Land Use
			☐ Energy Efficiency
			☐ Sustainable Urban Systems and Transport
			☐ Technology Transfer
			☐ Renewable Energy
			☐ Financing
			☐ Enabling Activities
		☐ Technology Transfer	
			☐ Poznan Strategic Programme on Technology Transfer
			☐ Climate Technology Centre & Network (CTCN)
			☐ Endogenous technology
			☐ Technology Needs Assessment
			☐ Adaptation Tech Transfer
		☐ United Nations Framework on Climate Change	
			☐ Nationally Determined Contribution