



## **Part I: Project Information**

### **GEF ID**

10890

### **Project Type**

MSP

### **Type of Trust Fund**

GET

### **CBIT/NGI**

CBIT No

NGI No

### **Project Title**

Global Partnership for Mitigation of Underwater Noise from Shipping (GloNoise Partnership)

### **Countries**

Global, Argentina, Chile, Costa Rica, India, South Africa, Trinidad and Tobago

### **Agency(ies)**

UNDP

### **Other Executing Partner(s)**

IMO

### **Executing Partner Type**

Others

### **GEF Focal Area**

International Waters

### **Sector**

### **Taxonomy**

Focal Areas, Influencing models, Stakeholders, Gender Equality, Capacity, Knowledge and Research, International Waters, Learning, Ship, Large Marine Ecosystems, Pollution, Sustainable Development Goals,

Demonstrate innovative approaches, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Type of Engagement, Information Dissemination, Consultation, Participation, Partnership, Beneficiaries, Communications, Awareness Raising, Behavior change, Civil Society, Non-Governmental Organization, Academia, Private Sector, Large corporations, Gender results areas, Capacity Development, Participation and leadership, Knowledge Generation and Exchange, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Innovation, Enabling Activities, Indicators to measure change, Theory of change, Adaptive management

**Rio Markers**

**Climate Change Mitigation**

No Contribution 0

**Climate Change Adaptation**

No Contribution 0

**Biodiversity**

**Land Degradation**

**Submission Date**

2/16/2023

**Expected Implementation Start**

7/1/2023

**Expected Completion Date**

6/30/2025

**Duration**

24In Months

**Agency Fee(\$)**

185,250.00

**A. FOCAL/NON-FOCAL AREA ELEMENTS**

<b>Objectives/Programs</b>	<b>Focal Area Outcomes</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
IW-1-1	International Waters Focal Area Objective 1 ? Strengthening Blue Economy opportunities: Addressing pollution reduction in marine environments	GET	1,950,000.00	12,127,500.00
<b>Total Project Cost(\$)</b>			<b>1,950,000.00</b>	<b>12,127,500.00</b>

## B. Project description summary

### Project Objective

To establish a truly global partnership to engage and assist developing countries to raise awareness, build capacity, define baselines and promote international policy dialogue on the mitigation of underwater noise from shipping.

<b>Project Component</b>	<b>Financing Type</b>	<b>Expected Outcomes</b>	<b>Expected Outputs</b>	<b>Trust Fund</b>	<b>GEF Project Financing(\$)</b>	<b>Confirmed Co-Financing(\$)</b>
Component 1: Global toolkit development and policy analyses	Technical Assistance	Outcome 1: Global capacities on assessing and mitigating the impacts of underwater noise from shipping enhanced through roll-out of advanced assessment methodologies and analysis of policy directions.	Output 1.1. Shipping underwater Noise Assessment Toolkit for baseline analysis and environmental risk and impact assessment, inclusive of data collection and analysis methods, developed and rolled out  Output 1.2. Global policy options for mitigation of underwater noise from shipping analysed.	GET	450,000.00	2,799,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Capacity Building and Awareness Raising in Participating Developing Countries	Technical Assistance	Outcome 2: Enabling environment of lead pilot countries strengthened through capacity building, awareness raising and gender inclusion	<p>Output 2.1. Baseline studies and environmental risk and impact assessment of underwater noise from shipping using the Noise Assessment Toolkit carried out by lead pilot countries</p> <p>Output 2.2. Development of women professionals on assessment and mitigation of underwater noise from shipping facilitated through learning exchanges</p>	GET	950,000.00	5,908,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Fostering Partnerships on Underwater Noise Mitigation from Shipping	Technical Assistance	Outcome 3: Partnerships strengthened for more effective collaboration on mitigating underwater noise from shipping	<p>Output 3.1. Dialogues on mitigation of underwater noise from shipping advanced through linkages with regulatory organisations, industry, donor funded regional projects and other developing countries</p> <p>Output 3.2. A Global Strategic Partnership (GSP) established as a public-private platform for steering the policy agenda and strengthening of the regulatory framework for underwater noise reduction from shipping</p>	GET	215,000.00	1,337,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 4: Monitoring, Learning, Adaptive Feedback and Evaluation	Technical Assistance	Outcome 4: Knowledge sharing and learning mechanisms established for facilitating adaptive management , upscaling and replication	Output 4.1. Project monitoring, evaluation and reporting systems established and implemented  Output 4.2. Sustainability enhanced through knowledge sharing and communications, including contributions to portfolio learning via IW:LEARN	GET	160,000.00	995,000.00
<b>Sub Total (\$)</b>					<b>1,775,000.00</b>	<b>11,039,000.00</b>
<b>Project Management Cost (PMC)</b>						
				GET	175,000.00	1,088,500.00
				<b>Sub Total(\$)</b>	<b>175,000.00</b>	<b>1,088,500.00</b>
				<b>Total Project Cost(\$)</b>	<b>1,950,000.00</b>	<b>12,127,500.00</b>

Please provide justification

**C. Sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
Donor Agency	IMO	In-kind	Recurrent expenditures	800,000.00
GEF Agency	UNDP	In-kind	Recurrent expenditures	150,000.00
Recipient Country Government	Government of Argentina	In-kind	Recurrent expenditures	421,250.00
Recipient Country Government	Government of Chile	In-kind	Recurrent expenditures	421,250.00
Recipient Country Government	Government of Costa Rica	In-kind	Recurrent expenditures	421,250.00
Recipient Country Government	Government of India	In-kind	Recurrent expenditures	421,250.00
Recipient Country Government	Government of South Africa	In-kind	Recurrent expenditures	421,250.00
Recipient Country Government	Government of Trinidad and Tobago	In-kind	Recurrent expenditures	421,250.00
Private Sector	Joint Research Project	Grant	Investment mobilized	1,650,000.00
Other	GATERS Innovation Action Project	Grant	Investment mobilized	7,000,000.00
<b>Total Co-Financing(\$)</b>				<b>12,127,500.00</b>

**Describe how any "Investment Mobilized" was identified**

IMO. IMO's co-financing contribution to the project will be in-kind and will include technical support provided to the project team by our in-house experts from both the Marine Environment Division (MED) and the Maritime Safety Division (MSD), as well as IMO's facilitation of the Marine Environment



Protection Committee (MEPC), the Maritime Safety Committee (MSC) and their subcommittees, including the Sub-committee on Ship Design and Construction (SDC), which is currently undertaking a formal Review of the Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833), the main international instrument the project seeks to help implement. The committees, including their subcommittees, formal Organs of the Organization, unite IMO's 175 Member States around the issues within their purview, and have a global legislative role. Lastly, the co-financing will include IMO's parallel activities in support of the wider, global implementation of the above-mentioned 'Underwater Noise Guidelines'. The in-kind co-financing contribution from IMO will also support project management costs, including cost-sharing for the Project Director and Project Manager positions, as well provision of office space and services for the Project Management Unit. IMO's available in-kind contributions for project management are fully allocated with these contributions. The overall ratio of co-financing to the GEF grant for project management is 1.8:1, which is consistent for co-financing across the technical components. UNDP. UNDP Co-Financing will come from the Ocean Innovation Facility dedicated to identifying and financing a suite of pilot initiatives that demonstrate highly innovative approaches to ocean sustainability, cutting across most of the SDG14 targets and associated sustainability challenges. By providing seed financing, advice and guidance, technical, knowledge and networking support, the Facility will help to remove key barriers by demonstrating approaches that can deliver transformational changes in ocean and ocean-relevant land-based resource management. While the private sector is expected to be an important partner and beneficiary of the Facility, the Facility's resources and support can also be directed to NGOs, intergovernmental organizations, national and sub-national government agencies positioned to pilot replicable and scalable innovations for ocean transformation. While interventions (particularly technological from the private sector) which deliver positive 'returns on investment' will be encouraged, other types of interventions (such as policy reform and economic incentives that transform ocean use) will also be considered. Several of the ocean innovations supported by UNDP will contribute directly to the implementation of this highly innovative GloNoise Partnership project. Lead Pilot Countries (LPCs). The in-kind contributions from the LPCs are based on the costs for participation in IMO MEPC meetings for the countries, which are comparable for all IMO Member States with a Delegation to IMO, as well as on an estimation for the salaries and wages of staff from key ministries and agencies who will be involved in the project, e.g., through participating in workshops and seminars and providing feedback on the key project deliverables, such as the proposed global Toolkit, analysed policy options for management of underwater noise from shipping, etc. Private Sector. The Joint Research (JoRes) project has committed USD 1,650,000 of grant (investment mobilized) co-financing. The JoRES project is a global initiative uniting more than 50 leading industry companies from 17 countries aiming to focus on ship scale Computational Fluid Dynamics validation, hull and propeller designs, cavitation and noise reduction. The investment mobilized co-financing represents the total budget of the JoRES project, consisting of the companies' financial contributions. The technological innovations envisaged under the JoRES project are directly aligned with the objectives of the GloNoise Partnership. Representatives of the JoRES project will play an important role as global strategic partners to the GloNoise Global Strategic Partnership. Other. The investment mobilized contribution from the public-private University of Strathclyde coordinated GATERS Innovation Action Project corresponds to its funding from the European Commission under the Horizon 2020 research

funding programme (ID: 860337). The overall objective of GATERS is to exploit the potential benefits and impact of the Gate Rudder System (GRS) on shipping operations, mainly for the 'Retrofit' application of the GRS on ships, and to study its impact, amongst others, on the reduction of noise and vibration, including the positive environmental impact of the GRS associated with improvements of the aft-end vibrations, cavitation and reduced underwater radiated noise. The GATERS project is a public-private partnership uniting private sector companies, not-for-profit research organizations and universities, under the leadership of the University of Strathclyde's Department of Naval Architecture, Ocean & Marine Engineering.

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

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNDP	GE T	Global	International Waters	International Waters	1,950,000	185,250	2,135,250.00
<b>Total Grant Resources(\$)</b>					<b>1,950,000.00</b>	<b>185,250.00</b>	<b>2,135,250.00</b>

**E. Non Grant Instrument**

NON-GRANT INSTRUMENT at CEO Endorsement

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Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

**F. Project Preparation Grant (PPG)**

PPG Required **true**

**PPG Amount (\$)**

50,000

**PPG Agency Fee (\$)**

4,750

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNDP	GET	Global	International Waters	International Waters	50,000	4,750	<b>54,750.00</b>
<b>Total Project Costs(\$)</b>					<b>50,000.00</b>	<b>4,750.00</b>	<b>54,750.00</b>

## Core Indicators

**Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)**

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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**Indicator 5.1 Fisheries under third-party certification incorporating biodiversity considerations**

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
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Type/name of the third-party certification

**Indicator 5.2 Large Marine Ecosystems with reduced pollution and hypoxia**

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE
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**Indicator 5.3 Marine 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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**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)
<b>Shared water Ecosystem</b>				
<b>Count</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

<b>Shared Water Ecosystem</b>	<b>Rating (Expected at PIF)</b>	<b>Rating (Expected at CEO Endorsement)</b>	<b>Rating (Achieved at MTR)</b>	<b>Rating (Achieved at TE)</b>
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**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)**

<b>Shared Water Ecosystem</b>	<b>Rating (Expected at PIF)</b>	<b>Rating (Expected at CEO Endorsement)</b>	<b>Rating (Achieved at MTR)</b>	<b>Rating (Achieved at TE)</b>
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**Indicator 7.3 Level of National/Local reforms and active participation of Inter-Ministerial Committees (IMC; scale 1 to 4; See Guidance)**

<b>Shared Water Ecosystem</b>	<b>Rating (Expected at PIF)</b>	<b>Rating (Expected at CEO Endorsement)</b>	<b>Rating (Achieved at MTR)</b>	<b>Rating (Achieved at TE)</b>
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**Indicator 7.4 Level of engagement in IWLEARN through participation and delivery of key products(scale 1 to 4; see Guidance)**

<b>Shared Water Ecosystem</b>	<b>Rating (Expected at PIF)</b>	<b>Rating (Expected at CEO Endorsement)</b>	<b>Rating (Achieved at MTR)</b>	<b>Rating (Achieved at TE)</b>
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**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)
<b>Female</b>	3,615	600		
<b>Male</b>	8,085	1,400		
<b>Total</b>	11700	2000	0	0

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

The GloNoise Partnership is a foundational project that could lead to a second phase. A follow-up phase would have the potential to scale up global environmental benefits (including core indicators 5 and 7) within select large marine ecosystems (LMEs). Direct beneficiaries (Core Indicator 11): The end target of 2,000 direct beneficiaries, of whom 600 are women, is largely based on the estimated non-monetary benefits to be generated through building capacities on assessing and mitigating the impacts of underwater noise from shipping. This includes specialists at the global and regional levels benefitting from increased knowledge and skills at implementing risk-based assessment tools and methodologies; people participating in the online GloNoise Toolkit trainings; people in the six LPCs acquiring skills and knowledge through capacity building and learning-by-doing assessments; people participating in national level seminars and conferences; people in other developing countries benefitting through twinning arrangements with the LPCs; and stakeholders participating in regional and global dialogues and workshops. The 30% gender disaggregation is considered a reasonable estimation for strengthening women participation and building capacities of women professionals in the field, taking into account that the sector is predominantly represented by men.



## Part II. Project Justification

### 1a. Project Description

#### Changes in alignment with the project design with the original PIF:

Changes in alignment with the project design with the original PIF are described below.

PIF	At endorsement
<b>Component 1: Global toolkits preparations, baseline studies and policy development</b>	<b>Component 1: Global toolkit development and policy analyses</b>
<b>Outcome 1:</b> Global toolkit(s), for ?baseline information gathering and analysis? and ?noise-related marine environmental risk and impact assessment? developed implemented and global and LPCs-level baselines, risks, impacts and policy options assessed and reported	<b>Outcome 1:</b> Global capacities on assessing and mitigating the impacts of underwater noise from shipping enhanced through roll-out of advanced assessment methodologies and analysis of policy directions
Output 1.1: Shipping underwater Noise Assessment Toolkit(s) for baseline analysis and environmental risk and impact assessment, inclusive of data collection and analysis methods, developed and documented. Output 1.2: Global and national capacity building workshops conducted in order to roll out the Noise Assessment Toolkit(s) to relevant regional experts and LPCs. Output 1.3: LPCs carried out ?baseline studies? and ?environmental risk and impact assessment of underwater noise from shipping? using the Noise Assessment Toolkit(s) and developed the national baseline reports. Output 1.4: Global policy options for mitigation of underwater noise from shipping were analyzed and developed	Output 1.1: Shipping underwater Noise Assessment Toolkit for baseline analysis and environmental risk and impact assessment, inclusive of data collection and analysis methods, developed and rolled out. Output 1.2: Global policy options for mitigation of underwater noise from shipping analysed.

The Component 1 title was slightly revised to reflect moving the baseline studies (and Output 1.3) to Component 2, which is focused on building capacities of the Lead Pilot Countries (LPCs) and replacing emphasizing policy ?analyses? rather than policy ?development?. Under this component the project will conduct a gap analysis of existing policy measures with a view to making recommendations on policy directions. The phrasing of Outcome 1 has been revised to better capture the intended results, i.e., enhanced global capacities. Outputs 1.1 and 1.2 in the PIF were combined into a single output, 1.1

in the version presented in the CEO endorsement. Output 1.1 includes development and roll-out of the Toolkit, rather than having these two aspects in separate outputs. As discussed above, carrying out risk assessments using the Toolkit in the LPCs is covered under Component 2 and, therefore, Output 1.3 included in the PIF has been shifted into Component 2.

PIF	At endorsement
<b>Component 2: Capacity building and awareness raising in participating developing countries</b>	<b>Component 2: Capacity building and awareness raising in participating developing countries</b> ( <i>no change</i> )
<b>Outcome 2:</b> Capacity building and awareness raising activities targeted at developing countries were carried out nationally and regionally towards understanding the issue of underwater noise from shipping and its mitigation	<b>Outcome 2:</b> Enabling environment of Lead Pilot Countries strengthened through capacity building, awareness raising and gender inclusion
<p>Output 2.1: Developed the awareness raising course materials on ?underwater noise from shipping, its significance, impacts, mitigation methods and regulatory aspects?.</p> <p>Output 2.2: Capacity building workshops delivered based on Outputs 2.1 and 1.1 at regional and national levels.</p> <p>Output 2.3: An International Expert Workshop / Forum organized on ?state of knowledge and required future steps on shipping underwater noise mitigation? and the outcome documented for use in future policy making.</p> <p>Output 2.4: Implementation of a gender specific scholarship in the project to develop women experts on the subject.</p>	<p>Output 2.1. Baseline studies and environmental risk and impact assessment of underwater noise from shipping using the Noise Assessment Toolkit carried out by lead pilot countries.</p> <p>Output 2.2. Development of women professionals on assessment and mitigation of underwater noise from shipping facilitated through learning exchanges.</p>

The phrasing of Outcome 2 was revised to reflect the primary result expected, i.e., strengthened enabling environment of the LPCs through capacity building, awareness raising and gender inclusion. Outputs 2.1 and 2.2 in the PIF were combined into a single output, 2.1 in the version presented in the CEO endorsement request. The main focus under this output is to build capacities of the LPCs in applying the Toolkit developed under Output 1.1 through conducting baseline studies and environmental risk and impact assessments. Output 2.3 in PIF has been integrated as an activity under Output 4.2 in the CEO endorsement request version. With respect to Output 2.4 in the PIF (Output 2.2 in the CEO endorsement request), through stakeholder consultations and deliberations among the PPG team members, it was concluded that more women professionals could be reached through facilitating learning exchanges rather than through a gender specific scholarship. Learning from practitioners working on actual underwater noise assessments and mitigation strategies would also likely be more effective in developing capacities within the 2-year timeframe of project implementation.

PIF	At endorsement
<b>Component 3: Formation of Global Public-Private Partnerships on Underwater Noise Mitigation from Shipping</b>	<b>Component 3: Fostering partnerships on underwater noise mitigation from shipping</b>
<b>Outcome 3:</b> Global Public-Private Partnerships in the form of a GIA (Global Industry Alliance) and a GSP (GloNoise Strategic Partnership) formed and engaged in project activities	<b>Outcome 3:</b> Partnerships strengthened for more effective collaboration on mitigating underwater noise from shipping
<p>Output 3.1: Established a Global Industry Alliance (GIA) as a private-sector collaboration platform dealing with operational and technical measures for reduction of underwater noise from shipping.</p> <p>Output 3.2: GIA engaged in the project, identified ship quietening technical and operational measures and developed feasibility aspects and a roadmap for their future implementation.</p> <p>Output 3.3: Established a GloNoise Strategic Partnership (GSP) as a public-private platform for in-kind support for implementation of the project and steering the policy agenda for strengthening of the regulatory framework for underwater noise reduction from shipping.</p> <p>Output 3.4: GSP supported relevant knowledge-based studies and made a submission(s) to IMO on the result of such studies for consideration by the MEPC.</p>	<p>Output 3.1. Dialogues on mitigation of underwater noise from shipping advanced through linkages with regulatory organisations, industry, donor funded regional projects and other developing countries.</p> <p>Output 3.2. A GloNoise Strategic Partnership (GSP) established as a public-private platform for steering the policy agenda and strengthening of the regulatory framework for underwater noise reduction from shipping.</p>

The title of Component 3 has been revised to 'Fostering partnerships on underwater noise mitigation from shipping', to capture the broad partnership building focus of the project. Based on experience gained on other Glo-X projects, namely GloFouling and GloLitter, it was decided that establishing a Global Industry Alliance (GIA) within the 2-year timeframe of the GloNoise project was largely infeasible and it would be more appropriate to encourage public-private dialogue and explore the options and modalities of a GloNoise GIA. For this reason, Outputs 3.1 and 3.2 in the PIF were reconsidered. Output 3.1 in the CEO endorsement version includes the following activity: 'Strengthen engagement with the industry/private sector and other key stakeholders, participating in regional and global dialogues on emerging issues associated with the impacts and management of underwater noise from shipping, with a potential creation of a Global Industry Alliance (GIA) to encourage long-term engagement of the private sector, including beyond the lifetime of this project?'. The scope of Output 3.1 extends beyond engagement with the industry/private sector, e.g., activities include linking with national, regional and multi-national regulatory organisations, engaging with other GEF-financed (and other donor) projects, advocating to incorporate underwater noise from shipping issues, and promoting broader participation of other developing countries through twinning arrangements with the LPCs. The GloNoise Strategic Partnership (GSP) remains in the project strategy; Outputs 3.3 and 3.4 in the PIF have been consolidated into a single GSP output (3.2).

PIF	At endorsement
<b>Component 4: Monitoring, learning, adaptive feedback and evaluation</b>	<b>Component 4: Monitoring, learning, adaptive feedback and evaluation</b> <i>(no change)</i>
<b>Outcome 4:</b> The coordination, monitoring and evaluation of project carried out on a regular basis and knowledge management and information sharing between all stakeholders accomplished	<b>Outcome 4:</b> Knowledge sharing and learning mechanisms established for facilitating adaptive management, upscaling and replication
Output 4.1: Project coordination structure is in place at global and national levels. Output 4.2: Project monitoring, evaluation and reporting systems established and implemented. Output 4.3: Project communication and dissemination activities inclusive of dissemination of results of Components 1 to 3 planned and implemented. Output 4.4: Project participated in portfolio learning via IW:LEARN.	Output 4.1. Project monitoring, evaluation and reporting systems established and implemented. Output 4.2. Sustainability enhanced through knowledge sharing and communications, including contributions to portfolio learning via IW:LEARN.

The phrasing of Outcome 4 has been revised with a focus on how knowledge sharing and learning mechanism, such as project level M&E will contribute towards facilitating adaptive management, upscaling and replication. Outputs 4.1 and 4.2 in the PIF have been combined to a single M&E output (4.1). Output 4.2 in the CEO endorsement version covers project communications and knowledge management; this output includes Outputs 4.3 and 4.4 in the PIF. For example, portfolio learning via IW:LEARN is an activity in Output 4.2 in the CEO endorsement version, rather than represented as a stand-alone output.

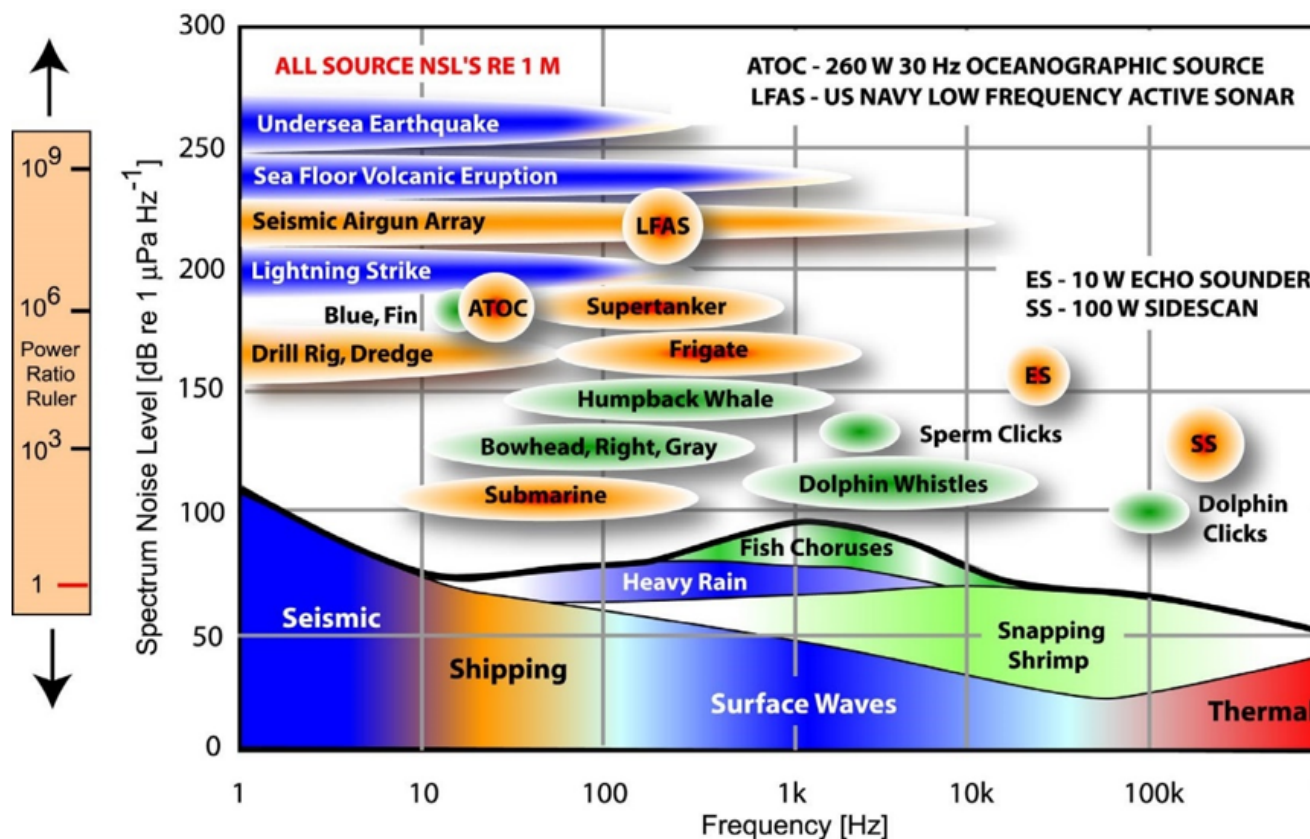
***Changes in the end target for GEF 7 Core Indicator 11:***

The indicative end target for GEF 7 Core Indicator 11 (direct beneficiaries) presented in the PIF was 11,700, of whom 3,615 (approx. 30%) are women. As described in the PIF narrative, the estimated beneficiaries are primarily those engaged in the fishing capture industry, and also includes individuals who will take part in project activities, including those attending capacity building activities, national stakeholder meetings, and those who directly contribute to the project activities and deliverables. As outlined in the project strategy description, the underlying aim of the project is on strengthening the enabling environment associated with assessment and mitigation of the impacts of underwater noise from shipping, with a particular emphasis on developing capacities of professionals in developing countries. Benefits to the fisheries sector, as well as to other development sectors, such as ecotourism, are expected to materialise at a later stage, when mitigation measures are agreed and implemented and biodiversity and marine ecosystems respond accordingly. The target for Core Indicator 11 was, therefore, revised to 2,000, of whom 600 (30%) are women. This target is primarily based on the estimated non-monetary benefits to be generated through building capacities on assessing and mitigating the impacts of underwater noise from shipping.

## Global environmental problems, root causes and barriers that need to be addressed

### *Global environmental problem:*

The effects of anthropogenic underwater noise on marine life have become an issue of global significance (UN 2018). Water is an excellent medium for sound transmission and marine mammals, fishes and many aquatic invertebrates use sound for communication and /or gaining information about their environment (Popper *et al.* 2020). Man-made underwater sound can interfere with these biological functions and lead to effects ranging from very subtle behavioural reactions to death at very high exposures and depending on the physical properties of the received sound. Anthropogenic underwater sound comes from many sources such as geophysical surveys, sonars (Naval and others), powered vessels (often described as shipping), and energy exploration and production (see *Figure 1* of the *Project Document* below).



*Project Document Figure 1: Overview of anthropogenic and other marine sound sources (*

Shipping is one of the major sources of underwater sound in the marine environment with ships of different sizes producing varied frequencies of sound. First there are small leisure crafts and boats with

a length of up to 50 metres e.g., recreational crafts, jet skis, speed boats, operational work boats, hover crafts. Then there are medium sized ships with a length of between 50 and 100 metres, e.g., support and supply ships and many research vessels. The third group includes large vessels with a length of greater than 100 metres. This category includes container/cargo ships, super-tankers, and cruise liners (see OSPAR 2009).

Sounds from shipping have a wide range in frequencies from about 10 Hz extending up to and above 1 kHz. Sound levels vary between app. 160 and well above 200 dB re 1  $\mu$ Pa re 1m (OSPAR 2009; Erbe *et al.* 2019). The exact characteristics of the sound emissions depend on variables such as vessel type, size and operational mode. In general, the larger the ship gets, the more intense becomes its generated sound levels and the lower becomes its sound frequency. In line with this trend, large commercial vessels produce relatively loud and predominately low frequency sounds with the strongest energy concentrated below several hundred Hz with most broadband source levels generally in the 180 - 190 dB re: 1 $\mu$ Pa range (OSPAR 2009). Large vessels dominate low frequency background noise in many marine environments worldwide and due to the steady increase in shipping over the past decades (estimated at 4 % per year globally), potential pressures on the marine environment will increase too (Erbe *et al.* 2019).

The impact and effects of shipping noise have been studied mainly in marine mammals (e.g. porpoises, dolphins, whales and seals) and less so in fishes and invertebrates (see Erbe *et al.* 2019 and Popper *et al.* 2020). They include a variety of behavioural responses (avoidance, attraction, other), masking, which is the effect whereby shipping noise decreases the ability to detect a wanted sound, temporary or permanent shifts in hearing threshold (TTS[1]1, PTS[2]2), and stress (see Erbe *et al.* 2019). There is also the possibility that shipping noise has ecosystem effects via impacts through the food chain (if lower trophic levels are affected to a significant extent; see for example Popper *et al.* 2020). Finally, as with other sources of sound there can be economic consequences if fishery resources are adversely affected by shipping noise (see UN 2018).

Due to its ubiquitous nature, global increase and the documented effects on marine life, shipping noise has been identified by several policy bodies such as the UN, IMO, OSPAR[3]3 and the EU, as an important issue which needs appropriate environmental management (see IMO 2009; OSPAR 2009; EC 2010; UN 2018). For example, in Europe, the EU has put into place the Marine Strategy Framework Directive (MSFD) which requires Member States to achieve 'Good Environmental Status' (GES) in their marine environment. The MSFD defines 11 qualitative descriptors for GES, one of which states that 'the introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment'. The EU has decided on two indicators that further specify

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GES with one of them explicitly dealing with continuous low frequency sound as for example emitted by shipping (details in EC 2010 and EC 2017).

***Threats and Root Causes:***

Underwater sound introduced by ships into the ocean environment originates from a number of sources with the main source of sound being the mechanical operation of machinery in particular the propeller. As far as the sound due to propulsion is concerned, modern powered vessels typically produce mainly low frequency (i.e., <1000 Hz) sound from hydrodynamic flow noise, on-board machinery, dominant when the propeller is cavitating. For ships, the overall radiated sound levels and frequency spectrum relate to many factors including vessel size, speed, loading condition, age, engine type and propeller design. Larger vessels (exceeding 100 m) typically generate louder, lower frequency sounds than smaller vessels.

The main threats and root causes contributing to the environmental problems that will be addressed by the GloNoise Partnership project are described below:

**Underwater noise due to shipping is a rising trend:** There is evidence that low frequency ambient noise is influenced to a large extent by shipping traffic. There are well documented increases in the total number and concentration of commercial vessels and low frequency ambient noise levels in some areas that demonstrate that maritime commercial traffic significantly affects average levels of low frequency ambient noise levels (see McDonald *et al.* 2006, Andrew *et al.* 2011 and Erbe *et al.* 2009; overview in Thomsen *et al.* 2021). As a result of the ever-increasing volume of international commercial shipping, this sector is expected to contribute to underwater noise more and more unless action on the mitigation of this sound source is taken.

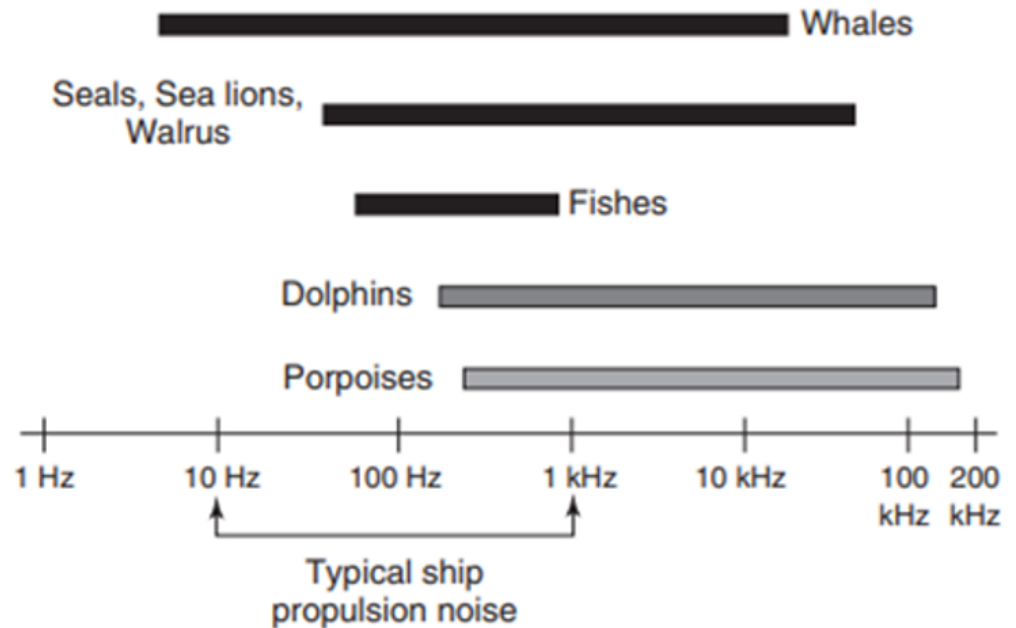
**Marine life essential communication functions are under increasing stress:** As indicated before, sound is critically important for most marine animals including marine mammals as its production and detection serves important biological functions such as communication, foraging, reproduction, navigation, and predator avoidance. Where there is an overlap between the frequencies of the anthropogenic sound sources and those of the sound used by marine animals, there can be interference with such important biological functions. The predominately low frequency sounds associated with large commercial vessels directly overlap with typical low frequency communication sounds and hearing of many marine mammals, particularly large whales, some seals and sea lions and fishes (see *Figure 2* of the *Project Document* below).



[1] TTS: Temporary Threshold Shifts.

[2] PTS: Permanent Threshold Shifts.

[3] OSPAR is the Convention for the Protection of the Marine Environment of the North-East Atlantic. It is the current legislative instrument regulating international cooperation on environmental protection in the North-East Atlantic.



*Project Document Figure 2: Typical hearing ranges for groups of marine animals versus typical frequencies of noise of commercial shipping<sup>4</sup>*

Studies have shown that marine animals may alter their behaviour in response to noise from vessels. Also, research shows that such alterations may have biological costs and can be strongly affected by physical and environmental factors. An important consideration for shipping noise, as a chronic and widely distributed low frequency sound source, is masking of biologically significant sounds (i.e., interference with the clear reception of important signals). Masking is strongly dependent on frequency overlap and spatial-temporal relationships between signals and noise. This can result in interference with sounds used in breeding, foraging, and navigation that are critical to species survival (see Clarke *et al.* 2009 and Erbe *et al.* 2016).

**Climate change is affecting the ocean soundscape.** Global warming is changing the chemical composition of the Ocean, which might speed up sound transmission (Affatati *et al.* 2022; but see Reeder & Chiu, 2010). It is also possible that an increase in sea surface temperature due to global warming reduces the total amount of acoustic energy in the Ocean and in fact might decrease sound



levels (Ainslie *et al.* 2021). This issue needs further research. Increases in noise are expected in areas such as the Arctic, due to the area opening up to shipping (see Halliday *et al.* 2017).

***Barriers hindering coordinated management of the impacts of underwater noise from shipping:***

**Barrier 1a: Inconsistent risk assessment methodologies:** There are ongoing risk assessments of the impacts of underwater noise from shipping; however, different approaches and methodologies are applied and there is limited coordination among specialist practitioners. These differences concern use of terminology although progress has been made with recent ISO standards (ISO 2017). But they also relate to data collection, for example on how to measure noise, data analysis and the interpretation of results and especially how to address mitigation (see guidelines by WODA 2013; example of risk assessment by McQueen *et al.* 2020 and recent review on how to apply risk assessment to mitigation by Popper *et al.* 2022).

**Barrier 1b: Lack of common policy framework:** From an information and policy point of view, there has been significant progress in developing guidelines for managing the impacts of anthropogenic noise in general (for example Boyd *et al.* 2008; Prideaux 2016) and for specific sources such as dredging (see WODA 2013). As far as shipping is concerned, IMO have agreed on voluntary *Guidelines for reduction of noise from commercial shipping to address adverse impacts on marine life* (MEPC.1/Circ.833 of 7 April 2014). These guidelines are voluntary in nature, deal mainly with ship technology aspects and have received minimal attention in developing countries. There is a need for further policy development in support of promoting studies, policy development and also practical reduction of the underwater noise due to shipping.

**Barrier 2: Limited awareness and capacities in developing countries:** Awareness about the issue of anthropogenic underwater noise and its impacts on the marine environment in developing countries is generally limited. This is partly due to a limited understanding of the technical subject matter and partly down to an absence of institutional structure and processes to develop information exchange and coordinated action among the diverse public and private sector entities affecting, and affected by, anthropogenic underwater noise. Because of these barriers, institutional, policy and legal arrangements are often insufficient to address the issue.

**Barrier 3: Lack of mechanisms for fostering multi-stakeholder partnerships:** Whilst a multitude of stakeholders, both public and private, are affecting, and affected by, underwater noise from shipping, there is often a lack of dedicated mechanisms for fostering multi-stakeholder partnerships to effectively collaborate on the management of the impacts of underwater noise from shipping. This is particularly

the case in developing countries where most ship ownership, shipbuilding, shipping operations and cargo transportation are based.

**Barrier 4: Insufficient data and knowledge sharing on the impacts of underwater noise from shipping:** From a scientific perspective, there is a lack of knowledge on the effect of shipping noise for most marine species (especially invertebrates and fishes but also lesser studied marine mammals; see Erbe *et al.* 2019). One of the gaps is that although marine traffic and thus the potential pressures arising from it is relatively well described even on a global scale (see, for example Thomsen *et al.* 2011; Halpern *et al.* 2015), there is very little data on related ambient underwater noise levels. It is true that in some areas, such as the Pacific, sound levels have been increasing, which could be due to the increase in shipping, but data coverage is very limited (see Erbe *et al.* 2019). This lack of baseline data was one of the main reasons why the EU MSFD continuous noise indicator for GES is primarily an incentive for a systematic mapping of shipping noise on a regional scale (see Dekeling *et al.* 2014). UN 2018 clearly points out the lack of data on both noise and marine species in Western Africa, the Pacific Islands regions and Southeast Asia. It combines this finding with a call to more international cooperation on the issue.

#### **Baseline scenario and associated baseline projects**

##### ***Past and ongoing efforts:***

The international dialogue on how underwater noise may negatively affect marine life intensified in the past two decades. One of the first international efforts on the subject of 'underwater noise from shipping' was a 2004 symposium hosted by the US National Oceanic and Atmospheric Administration (NOAA) entitled 'Shipping Noise and Marine Mammals: A Forum for Science, Management, and Technology.' In this stakeholders' forum, while uncertainties and complexities regarding the potential effects of shipping noise were acknowledged, there was recognition that large vessels can represent a substantial contribution to the overall low frequency ambient noise levels.

A key action agreed by the stakeholders was the need to identify ship quieting technologies and how these could be scaled up to large commercial vessels. This led to a follow-on NOAA symposium in 2007 entitled 'Potential Application of Quieting Technology on Large Commercial Vessels.' As a result, the stakeholders agreed that they should focus specifically on technical aspects and costs-benefits of various noise-reduction options but at the same time on how shipping may be encouraged via regulatory, economic, public awareness to uptake of vessel-quieting technologies. One recommendation was to advance international awareness and action proposals to member countries at

the IMO. Accordingly, the USA submitted a document to IMO's Marine Environment Protection Committee (MEPC) entitled "Shipping noise and marine mammals" (MEPC 57/INF.4). This document was a broad introduction to the topic, advising MEPC on noise from commercial ships and its potential adverse impact on marine life, and requested IMO Member States to engage their stakeholders in efforts on the identification of potential adverse impacts associated with vessel noise and the potential mitigation of those impacts.

Formal consideration of this issue at the IMO took place at the 58th Session of the MEPC in 2008, which led to the setting up of a Correspondence Group (CG) to review potential quieting technologies for large commercial vessels (MEPC 58/19). The outcome of this CG activity was the development of the "Guidelines for ship design and operational modifications to accomplish vessel quieting" (MEPC 59/19; MEPC 60/18). The MEPC efforts concentrated primarily on propeller design and modification to reduce cavitation, but also considered hull design, on-board machinery, and operational modifications to reduce the aggregate impacts of ship noise on marine life. This finally led to the adoption of the voluntary *Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life* (MEPC.1/Circ.833 of 7 April 2014)..

It is worth noting other international developments which took place in parallel with the IMO efforts to address underwater noise from shipping. These include the development of technical measurement standards for underwater sound from ships (ANSI S12.64) and related measurement protocols developed by the International Standards Organization (ISO). Additionally, the Arctic Marine Shipping Assessment (AMSA, 2009) highlighted potential impacts of novel shipping noise on Arctic ecosystems as shipping becomes more common in these areas. Furthermore, the International Whaling Commission's Environmental Concerns Scientific Working Group convened a special session in 2010 on potential masking impacts of shipping noise and other low frequency sound. Finally, the European Union (EU) began to develop mechanisms to regulate continuous low frequency noise through its Marine Strategy Framework Directive (MSFD).

On-going efforts include existing legal and policy frameworks, research, existing measures, and international collaboration and capacity building. Both UN 2018 and Erbe *et al.* 2019 provide comprehensive reviews on such efforts. However, as can be seen, most of the past and existing efforts are concentrated in developed countries, mainly in North America and Europe, with little participation of developing countries.

***Existing legal and policy frameworks:***

## *Global level*

The UN Convention on the Law of the Sea (UNCLOS) does not specifically address underwater noise. However, marine underwater noise can be considered as a form of pollution, which is addressed by UNCLOS, and requires signatory States to take measures to prevent, reduce and control pollution in order to preserve ecosystems as well as marine species. UNCLOS also includes State-level obligations and provisions concerning pollution and marine environmental protection from shipping.

The 2017 United Nations (UN) declaration 'Our ocean, our future: call for action' (A/71/L.74 of 30 June 2017) included a specific reference to addressing underwater noise. This was followed in 2018 by the UN Informal Consultative Process on Oceans and the Law of the Sea, which focused on the issue, with contributions from both governmental and non-governmental stakeholders, resulting in a Secretary-General report on 'Oceans and Law of the Sea' (UN, 2018). In 2019, UN General Assembly resolution 74/19 (A/RES/74/19 of 10 December 2019) also explicitly included underwater noise and encouraged the International Maritime Organization (IMO) to take action on shipping noise, in particular by looking at energy efficiency and noise reduction measures in tandem.

Other international efforts such as the Rio Declaration on Environment and Development call for a precautionary approach when managing human impacts on the environment which in turn will guide risk assessment frameworks that will be discussed in more detail later. Of importance in this context is also the UN Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources. Other measures and guidance include the work of the Food and Agriculture Organization of the United Nations (FAO) concerning fishing vessels. The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London Convention) and its 1996 Protocol has discussed noise from dredging activities. The Convention on Biological Diversity, the Convention on the Conservation of Migratory Species of Wild Animals and the International Whaling Commission have considered the impacts of underwater noise from various sources on marine biodiversity or specific marine species, as well as mitigation measures. In this context it is noteworthy that the Convention on Biological Diversity produced a comprehensive review of the impacts of anthropogenic underwater noise on marine biodiversity and approaches to manage and mitigate them (Harding and Cousins 2022).

As explained earlier, the IMO has issued the non-mandatory guidelines for the reduction of underwater noise from commercial shipping (IMO 2014) that include a set of advice on issues such as prediction of noise levels via modelling, need for standards and references when measuring noise, guidance on vessel design considerations and operational measures to reduce noise impacts such as the reduction of

speed (depending on propeller design, safety, and energy efficiency) and changing the shipping route to avoid sensitive marine areas.

The issue of underwater noise and its effects on marine life is also taken into account through IMO designated Particular Sensitive Sea Areas (PSSAs). These are areas considered deserving of special protection due to their recognized ecological, socio-economic or scientific significance, and which may be vulnerable to damage by ships. Through the establishment of these areas, specific measures to protect the environment are applied to international shipping. The 2005 Revised guidelines for the identification and designation of Particular Sensitive Sea Areas (resolution A.982(24), as amended by resolution MEPC.267(68)), recognize that noise from ships can adversely affect the marine environment and living resources of the sea.

A significant shortcoming of the current international framework is that these general provisions and international policy frameworks are of a non-legally binding nature. Additionally, global awareness of the impacts of underwater noise from shipping on the marine environment is generally limited.

#### *Regional level*

On a regional level, policy frameworks addressing anthropogenic noise (including in some cases, shipping noise) are mainly located in the European Union (EU MSFD), The North-East Atlantic (via OSPAR and ASCOBANS, *Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas*), the Mediterranean (for example via ACCOBAMS, *Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area*) and the Baltic (via ASCOBANS and HELCOM, the Baltic Marine Environment Protection Commission, or Helsinki Commission). The work in some of these fora is mainly dedicated to strategies, roadmaps, and guidance. Both OSPAR and HELCOM are providing tools for the management of noise (non-shiping related) for the MSFD. With the adoption of the Marine Strategy Framework Directive (MSFD), underwater noise appeared explicitly in European legislation. The MSFD focuses on the 'distribution in time and space of loud, low- and mid-frequency impulsive sounds' and 'trends in continuous low frequency noise (as generated by shipping)' (EC 2010). Following a Commission Decision in 2017 Member States are now required to set threshold values for levels of underwater noise that do not adversely affect the marine environment (EC 2017).

#### *National level*

Regulation of underwater noise applies noise criteria in some countries. Noise criteria describe received levels of noise that should not be exceeded in order not to cause harm to marine life. They have been developed and applied both for behavioural response and injury in a variety of countries, for example in the US (see NMFS 2018), in Germany (BSH 2011) and in Denmark (Tougaard 2021). However, regulated activities are mainly seismic surveys and pile driving for offshore wind farms, both leading to the emission of high intensity impulsive sounds, which differs markedly from underwater noise from shipping.

No national criteria exist for shipping noise as yet. Concerning frameworks for managing shipping noise on a national level, the Port of Vancouver's Enhancing Cetacean Habitat and Observation (ECHO) Program is of particular relevance.[1] The ECHO program aims at a better understanding and management of shipping impacts on whales (in particular killer whales, *Orcinus orca*). In 2017-19, voluntary vessel slowdown trials were conducted in key habitats for killer whales. These involve a reduction of vessel speed to 11 knots. In addition, the Port of Vancouver reduces harbour due rates for such vessels that meet noise reduction standards.

#### ***Research and technology status:***

**Noise monitoring and quantification:** Notably, the MSFD has triggered a variety of projects aiming at systematically monitoring ambient noise in the Baltic (BIAS program, *Baltic Sea information on the acoustic soundscape*), the wider North Sea (JOMOPANS (*Joint Monitoring Programme for Ambient Noise North Sea*)), the Atlantic (JONAS, *Joint Framework for Ocean Noise in the Atlantic Seas*) and the Mediterranean Sea (Quiet Med). All of these programmes have been deploying noise monitoring stations in the respective study areas to document a baseline of ambient noise (and possibly a trend over time) and most have been working on the development of standards both for the measurement and analysis of underwater ambient noise. This includes the application of numerical modelling of the underwater noise and the production of noise maps that can be used in spatial risk assessment of noise (see guidelines in Dekeling *et al.* 2014). To mention here is also the International Quiet Ocean Experiment which is an international scientific program to promote research (monitoring and sound modelling for example) to improve the knowledge on the underwater soundscape and impacts on marine life (see <https://www.iqoe.org/>).

In 2022, in the context of the United Nations Decade of Ocean Science for Sustainable Development (The Ocean Decade - <https://www.oceandecade.org/>), JPI Oceans, a pan-European intergovernmental platform aiming to increase efficiency and impact of research and innovation for sustainably healthy and productive seas and oceans, selected five projects dealing with the effects of anthropogenic noise pollution on marine ecosystems and the development of innovative seismic sources as quieter and

effective alternatives to conventional marine geophysical exploration. These projects are due to start by the end of 2022, as officially endorsed UN Oceans Decade project.[2]

**Underwater noise mitigation measures/technologies:** There has been significant progress in developing mitigation measures for high intensity impulsive sounds over the past decade (summarised in Thomsen & Verfuss 2019 and in Thomsen *et al.* 2021). Concerning shipping noise, the aforementioned IMO Voluntary Underwater Noise Guidelines set forth criteria on how to mitigate noise impacts specifically for shipping. Hence, as far as shipping is concerned, the measures for noise reduction are to some extent known, though these are not generally widely applied yet.

#### ***International cooperation and capacity building:***

**Capacity building activities to date:** In the report of the Secretary General to the General Assembly, the UN clearly emphasises the need and the benefits of international collaboration and capacity building on the topic of anthropogenic underwater noise (UN 2018). Workshops and scientific conferences are important tools to foster knowledge transfer and collaboration. Amongst such conferences is the International Conference on the Effects of Noise on Aquatic Life (Aquatic Noise), which is held every three years since 2007. One key aspect of this conference is that it includes scientists from different disciplines (e.g., physics and biology) as well as other stakeholders (regulators, industry); which allows for information sharing across a wide range of issues (see <https://an2022.org/>). On shipping noise reduction, as discussed before, several international symposiums as have been organised by NOAA, and several more in Europe. The above discussed baseline scenario clearly indicates the need for capacity building in developing countries in particular. .

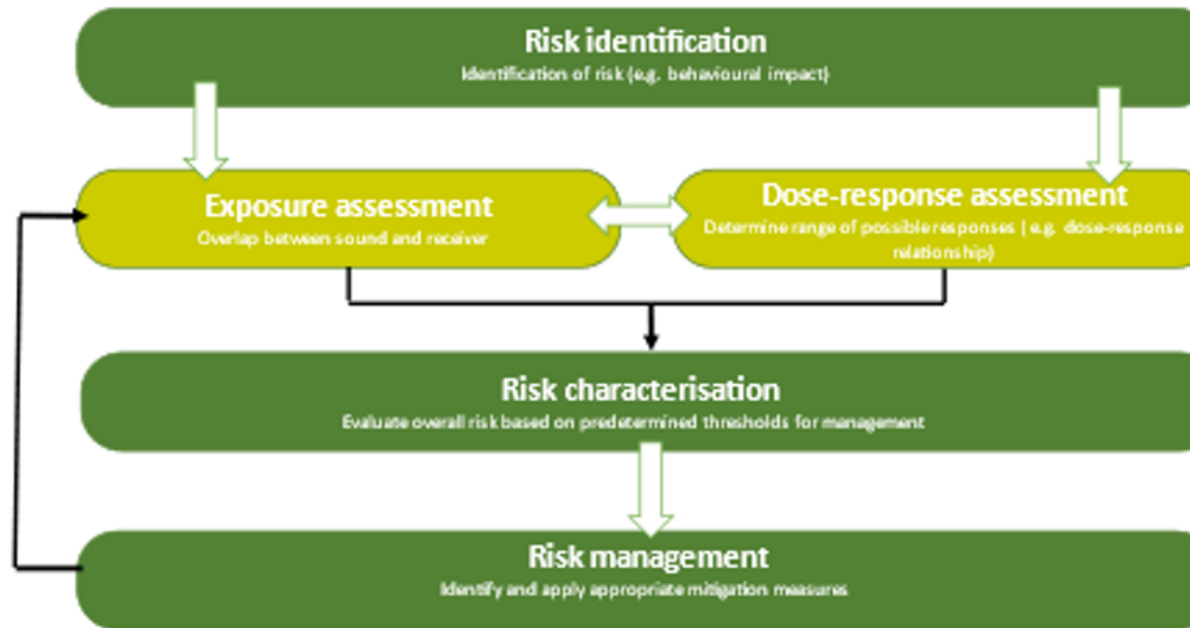
**Impact assessment studies and need for application to shipping sector:** Background documents and especially technical guidelines to assess noise impacts have been developed by policy bodies such as the Convention on Migratory Species of Wild Animals (CMS; see Prideaux 2016) and organizations such as the World Organization of Dredging Associations (WODA ,WODA 2013). Building on earlier work by the European Marine Board (Boyd *et al.* 2008), WODA 2013 emphasises the use of a risk-based approach to impact assessments of underwater sound. In this context, there is broad appreciation among regulators and scientists that the basic way of dealing with potential effects of anthropogenic sound is the risk-based approach.

In general terms, a risk assessment is the systematic process of evaluating the potential risks imposed by an activity or project. More specifically, it involves a stepwise procedure, including (i) risk identification; (ii) exposure assessment; (iii) dose?response assessment; (iv) overall characterisation of

risk, which finally leads to (v) risk management and the selection of appropriate mitigation measures. It is important to point out that mitigation measures should only be applied when risks are evident and where the level of sound is likely to cause significant impacts that lead, for example, to population or ecosystem level consequences or harm to individuals of specially protected species. This process is shown in *Figure 3* of the *Project Document*.

[1] See <https://www.portvancouver.com/environmental-protection-at-the-port-of-vancouver/maintaining-healthy-ecosystems-throughout-our-jurisdiction/echo-program>.

[2] See <https://www.jpi-oceans.eu/en/turning-volume-five-new-projects-underwater-noise-marine-environment-awarded-funding>.



*Project Document Figure 3: Overview of the risk-based approach (Thomsen et al. 2021)*

In line with this, UN 2018 emphasized the importance of guidance documents in international collaboration and capacity building. At the same time, it also stressed that such documents and toolboxes should be tailored to the socioeconomic and cultural context of specific countries. In the specific case of shipping no such technical guidance is available yet. Under the baseline scenario, a clear gap exists in relevant toolkits for underwater noise impact assessment due to shipping.



**Funding aspects:** Concerning funding for noise studies, a variety of mechanisms are available both from governments (e.g., US Navy) and industry associations (for example via the Joint Industry Program for Sound and Marine Life, International Organization of Oil and Gas Producers, IOGP; see <https://www.soundandmarinelife.org/>). Yet, in part owing to the location of knowledge-centres on this topic, studies are mainly undertaken by institutions from developed countries. There appears to be a clear underrepresentation of the shipping industry as well as of developing countries in the efforts to conduct larger scale noise studies. Funding opportunities are further disproportionately available to developed instead of developing countries.

As far as international collaboration and cooperation is concerned, the baseline scenario clearly indicates the existence of a considerable gap in this area. Most collaborations have been in developed countries and there is a clear need for engagement of developing countries in these efforts.

***Past and ongoing GEF and other donor financed projects:***

The EU has funded a variety of large-scale joint monitoring projects investigating impulsive and continuous sound, including from shipping (e.g. BIAS, JONAS, JOMOPANS, Quiet Med 1-2; see 29; overview in Merchant *et al.* 2022). In addition, the EU and other institutions have funded research which is relevant to impulsive and continuous sound. Of particular relevance for shipping are the following donor funded initiatives: AQUO (2012?2015, EU FP7 Ship source modelling and quieting), NAVAIS 2018?2020 (EU H2020; Sustainable ship design, including noise), PIAQUO (2019?2023; LIFE, Noise optimised propellers and real-time ecosystem and propeller noise monitoring), PRONOVI (2018?2021 JPI Oceans Propeller cavitation noise modelling), SATURN (2021?2025 EU H2020 Shipping noise, effects, quieting; standardisation), SILENV (2009?2012 EU FP7; Ship source characterisation) and SONIC (2012?2015; EU FP5 Ship source characterisation; summarised and reviewed by Merchant *et al.* 2022).

**Proposed alternative scenario with description of outcomes and components of the project**

The baseline scenario shows that some progress has been made over the past two decades to understand the effects of anthropogenic underwater noise from shipping on marine life. These efforts have mainly concentrated in the developed countries. There have been important policy initiatives and regulatory actions and research on ambient noise in some regions including the development of methods for data collection and analysis. Some progress has also been made in proposing the use of operational and technical measures to reduce noise from shipping, including through the IMO?s voluntary underwater noise guidelines. International collaboration and dialogue between experts and regulators have also

increased in the past two decades with the establishment of important scientific meetings covering the effects of anthropogenic noise on aquatic life. Technical guidelines for assessing noise impacts for some sectors have been developed including those for dredging. The application of the risk-based approach as a framework for noise impact studies has also been considered and advocated as best practice.

The review of the baseline scenario shows considerable gaps in dealing with underwater noise from shipping as a global marine environmental issue. First and foremost is the very limited participation of developing countries in this important effort thus far.[1] Filling this gap through the engagement of developing countries is an essential requirement because underwater noise from shipping is a global issue, and because of the important and decisive role developing countries play in international shipping in terms of shipbuilding, ship operations, ship flag registration, supply of seafarers and their level of dependency on shipping for imports and exports.

Also, despite some advances made so far under the baseline scenario, there are profound gaps in the understanding of the impacts of underwater noise from shipping on aquatic life which are not likely to be solved by the existing baseline scenario and ongoing efforts. Thus, collection of baseline ambient noise data, their analysis, and understanding of the worldwide scale of underwater noise from shipping need yet to be addressed.

While regulatory mechanisms such as specific national requirements set by port and/or flag states and international approaches such as IMO's voluntary guidelines may need to be strengthened through policy discussion, the challenge in mitigating underwater noise from shipping is also a technological issue that can be handled to some extent by the industry and private sector. Thus, systematic engagement of industry in any mitigation efforts is of vital importance.

Based on the above, the alternative scenario this project advocates supports progress to be made in the following areas:

**Capacity building and awareness raising in developing countries:** This is essential for addressing the global issue of underwater noise from shipping, in particular in developing countries, where the baseline scenario indicated that capacity and awareness are limited. Engagement of developing countries on this subject is extremely important due to their high stake in international shipping.

**Scientific and technical progress on understanding shipping noise scale and impacts:** As with many complex and evolving global maritime environmental issues, scientific and technical progress is needed in order to advance on better understanding of the subject. Under the alternative scenario, new research is needed to better understand the overall scope and biological significance of disturbance and masking from shipping noise as well as the way underwater noise can be mitigated. For example, on the technology side, the requirement may be expressed as follows:

- ? Quantification of the link between ship noise reduction and regional ambient noise levels, as well as ambient noise levels themselves in many parts of the world.
- ? Coordinated sound measurements for vessels with means of tracking movement and other operational conditions including ship route and position via Automatic Identification System (AIS).
- ? Implementation, efficacy testing, and cost/benefit analyses of quieting technologies and operational measures for ships.
- ? Better understanding of the relationship between sound and propeller cavitation and standardized individual vessel sound signatures for different ship classes and sizes under various operating and maintenance conditions.

**Strengthening the underwater noise reduction regulations for ships:** The IMO voluntary underwater noise guidelines are being reviewed based on new evidence and proposals made for improving the regulatory framework for shipping noise reduction. Under the alternative scenario, the project seeks to capacitate LPCs in the implementation of the IMO guidelines and in their engagement in global policy dialogues, including in IMO Committee meetings. The project will not propose new regulations at national or international level.

**Environmental risk assessment of noise:** Based on the analysis under the baseline scenario, there is an urgent need for the development of risk-based guidance and training material specific to shipping, which can be applied on a global level, with a particular focus on developing countries. In such guidance, methodology and techniques for doing the impact assessment need to be addressed alongside aspects such as marine species, environmental and socioeconomic specificities of countries and particular geographies. Promotion and implementation of such tools also need to be catalysed under the alternative scenario.

**Promotion of the uptake of quietening technologies:** There has been some emphasis on noise reduction (quieting) technologies to address anthropogenic underwater noise. These are reflected both in IMO's voluntary Underwater Noise Guidelines and in the 2018 UN dedicated report on the subject.

Under the alternative scenario, efforts will be made to identify ways of accelerating the uptake of the noise reduction technologies for ships. This requires industry engagement as outlined below.

**Industry engagement:** In achieving the above, the proactive involvement of industry is essential. This gap will be covered by the project via increased engagement with the private sector. The GloNoise Global Strategic Partnership will bring industry players together in order to promote relevant technologies as well as operational practices to mitigate the scale of this major global environmental issue.

**Developing countries engagement, international collaboration and knowledge sharing:** Currently, there is limited engagement of developing countries as well as little international cooperation with regards to South-North collaboration on underwater noise mitigation. Under the alternative scenario, this collaboration will be established and enhanced via wider dissemination efforts and creation of strategic partnership networks. In particular, the engagement of environmental organizations and key organizations with a mandate of protecting marine mammals and other species will be sought, so that the project can benefit from their particular expertise. As a pertinent example, the International Whaling Commission has endorsed this project, and a letter to that effect has been included in *Annex 18* to the Project Document.

### Project Strategy:

IMO, UNDP and the GEF have co-developed a longstanding, successful cooperation model through a sequence of so-called 'Glo-X' partnership projects, including:

- ? GloBallast[2] (2000-2004 and 2007-2017) on the reduction of transfer of Invasive Aquatic Species in ship's ballast water;
- ? GloMEEP[3] (2016-2019) on the reduction of GHG emissions from international shipping;
- ? GloFouling Partnerships[4]<sup>4</sup> (2019-2025) on the reduction of impacts of ship hull fouling on transfer of Invasive Aquatic Species as well reduction of GHG emissions.

In this model, a three-tier governance structure (global, regional and national) is used with most of the 'on-the-ground' work done at the national level. The GloNoise Partnership project will follow this model of project implementation and governance, and will closely benefit from the experience gained through many years of successful Glo-X project delivery, which will in turn benefit the participating Lead Pilot Countries..

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The following Lead Pilot Countries (LPCs), situated adjacent to nine large marine ecosystems (LMEs), were selected based on a technical review of the expressions of interests submitted by 13 IMO Member States:

[1] There has been some involvement of developing countries in regional projects/studying impact and looking at potential solutions. One good example is ACCOBAMS Guidelines developed, in which Northern African countries also participated. See: [https://accobams.org/wp-content/uploads/2019/04/MOP7.Doc31Rev1\\_Methodological-Guide-Noise.pdf](https://accobams.org/wp-content/uploads/2019/04/MOP7.Doc31Rev1_Methodological-Guide-Noise.pdf)

[2] Website: <https://globallast.imo.org/>.

[3] Website: <https://glomeep.imo.org/>.

[4] Website: <https://glofouling.imo.org/>.

<b>Lead Pilot Country</b>	<b>Large Marine Ecosystem</b>
Argentina	Patagonian Shelf LME
Chile	Humboldt Current LME
Costa Rica	Pacific Central-American Coastal LME
	Caribbean Sea LME
India	Arabian Sea LME
	Bay of Bengal LME
South Africa	Benguela Current LME
	Agulhas Current LME
Trinidad and Tobago	Caribbean Sea LME

Criteria considered in the selection of the LPCs include:

- ? Country's proven record of relatively strong policy agenda on environmental protection.
- ? Existence of the basic political will in the country on the subject.

- ? The level of interest of the country for promotion of policy making and/or noise mitigation efforts including policies, strategies and regulations.
- ? Countries with higher stakes in protection of international waters resources and marine life.
- ? Countries with real underwater noise issues.
- ? Countries with significant regional influence including leading participants in LMEs-related activities.

Information provided by the Lead Pilot Countries in response to IMO's Call for Expressions of Interest, is compiled in *Annex 12* to the *Project Document (Profiles of the Lead Pilot Countries)*. Brief summaries are provided here:.

Argentina	<p>Argentina has an extensive maritime coastline and the country's exclusive economic zone (EEZ) occupies the majority of the Patagonian Shelf large marine ecosystem (LME). Marine shipping is primarily associated with the foreign trade flows, particularly exports of agricultural products, from the port facilities situated along the Patagonian coast. Currently, the Argentine Naval Prefecture is seeking to address the issue of underwater noise through developing the draft new Maritime, River and Lake Navigation Regime (REGINAVE) chapter entitled "Underwater noise from ships and its adverse effects on aquatic fauna?". Between 27 February and 6 March 2021, the first campaign involving an acoustic survey and a survey of the effects of seismic prospecting activities on marine fauna in the sectors near the Namuncur? ? Burdwood Bank marine protected area was carried out.</p> <p>Argentina is a Member of the International Whaling Commission (IWC). Since its establishment in 2018, Argentina has coordinated the Anthropogenic Underwater Noise Working Group (AUN WG) of that organization. Through the IWC, Argentina has actively participated in rounds of consultations carried out by IMO on revising the 2014 underwater noise guidelines.</p>
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Chile	<p>Chile has a number of large ports along the country's 6,435 km long coastline, servicing marine transportation in the adjacent Humboldt Current LME. Underwater noise has been identified as a priority issue, with the creation of the 'Operating Committee for Strengthening of the Management of Underwater Noise Control and the prevention of its impacts on biodiversity'. The main purpose of this committee is to support and enhanced coordination, systematization, management and elaboration of measures, programmes, plans and projects of the different member institutions. Two projects are being developed to minimize the threats of underwater noise and collisions between ships and cetaceans. The "Real-time Acoustic Warning System" project, promoted by the WWF is aimed at alerting vessels on the migration of whales in the Gulf of Corcovado. The second project, 'The Blue Boat Initiative' is being implemented by the MERI Foundation in partnership with the Ministry of Environment, and involves deployment of artificial intelligence powered monitoring buoys, forming a whale early warning systems for vessels. The initiative is also establishing protocols for the protection of whales in maritime traffic routes.</p> <p>Supported by the Inter-sectoral Coordination Working Group on Underwater Noise, established in 2018 and chaired by the Ministry of Environment, the Government of Chile has made important progress towards creating the requisite institutional framework for effective management of underwater noise from shipping.</p>
Costa Rica	<p>Costa Rica handles maritime transport along the country's Pacific Coast, part of the Pacific Central-American Coastal LME, and on the Caribbean Coast, which is within the Caribbean Sea LME. Proposed infrastructure projects in recent years for developing marinas near important cetacean habitats and close to marine protected areas highlights the need to strengthen national capacities on assessing and mitigating impacts associated with underwater noise from shipping (and other sources) on resident and migratory cetacean populations and other globally significant marine biodiversity. The ONDAS initiative, led by a group of researchers, has installed acoustic recorders off the coast of Costa Rica and Panama since 2016 to better understand the acoustic landscape, sources of noise and spatial and temporal changes of certain cetacean species.</p> <p>Although there are no specific legal frameworks in place regarding underwater noise, the Government of Costa Rica as implemented important regulatory and institutional reforms. For example, Executive Decree No. 41003 MOPT-SP-MINAE establishes maritime safety zones to reduce the likelihood of collisions of commercial ships with cetaceans in the Costa Rican Pacific. The creation of the National Maritime Commission through Executive Decree No. 38014-MINAE-SP-MOPT-RE-MIVAH-TUR, aligns policies and planning instruments associated with marine matters for effective management of marine ecosystems.</p>

India	<p>Most of the shipping traffic from the North Atlantic to the Asia Pacific region and back passes through the Indian Ocean Region (IOR). India has seen a steady increase in traffic across the 12 major ports in the country and 205 non-major ports, along its 7,500 km long coastline and sea-islands. India has recognised the importance of underwater noise and deliberated on the issue in the run up to the MEPC-75 and 76; and a paper was forwarded for the MEPC-76, proposing an Underwater Domain Awareness (UDA) framework to bring policy and technology intervention along with acoustic capacity and capability building.</p> <p>The Government of India considers underwater noise as a priority issue, from environmental and strategy aspects. A research study conducted by the Maritime Research Centre (MRC) in 2018 in collaboration with the Indian Maritime Foundation, concluded that ship movement in the Arabian Sea, Bay of Bengal and the Indian Ocean will cause noise levels to double every 10 years, affecting marine life. Apart from extensive research undertaken, India also has proven expertise and experience in designing and certifying silent ships, undertaking acoustic radiation analysis, developing acoustic hygiene procedures, attenuating structure-borne noise from noise-critical machinery, optimising propellers for cavitation margin, etc. Four passenger vessels for Andaman &amp; Nicobar Administration contracted for building in 2016 at the Cochin Shipyard were provided features to reduce underwater noise to the extent feasible and, in fact, many of the reduction features were understood to add improvement to crew and passenger comfort.</p> <p>With Indian waters extending across both the Arabian Sea LME and Bay of Bengal LME, India is well positioned to provide regional leadership in marine governance as well as make substantive contributions towards further development of technological mitigation measures.</p>
South Africa	<p>South Africa is a major international marine shipping location, having eight commercial ports along the country's 3,000+ km Indian Ocean and Atlantic Ocean coastlines, within the Agulhas Current LME and Benguela Current LME, respectively. The South African waters are also primary habitats and migration routes for globally significant marine biodiversity. In 2014, South Africa launched Operations Phakisa 'Blue Oceans Economy', with four priority sectors, including marine transport and manufacturing activities (coastal shipping, trans-shipment, boat building); offshore oil and gas exploration; aquaculture and marine protection services; and ocean governance.</p> <p>With recent bunkering activities in Algoa Bay in the Eastern Cape, environmentalists are calling on the South African Maritime Safety Authority (SAMSA) to halt activities, suggesting that vessel noise is a major contributing factor to declining penguin populations. SAMSA has taken steps to increase awareness on the need to reduce underwater noise from shipping, e.g., activities associated with underwater hull cleaning. As a member of several regional bodies, including the Benguela Current Convention, Nairobi Convention, The Indian Ocean Rim Association and the Maritime Technology Cooperation Centre, South Africa is well positioned to lead in the dissemination of best practices to other countries in the region.</p>



Trinidad and Tobago	<p>Trinidad and Tobago (T&amp;T) is the southernmost island of the Lesser Antilles and one of the most industrialised nations in the English-speaking Caribbean. &amp;T's maritime boundaries lie among the three countries of Venezuela, Grenada and Barbados encompassing a marine exclusive economic zone that is significantly larger than the country's terrestrial space. T&amp;T has eight (8) major port areas with thirty (30) International Ship and Port Facility Security (ISPS) compliant port-facilities conducting trade of petroleum, chemical, dry and liquid bulks, containers, general cargo and break bulk. The west coast of Trinidad and Gulf of Paria is considered a major maritime area as most port facilities, jetties and industrial complexes are located there.</p> <p>T&amp;T has a vested interest in a thriving regional maritime infrastructure and is an avid supporter of a Caribbean maritime economy that facilitates seaborne trade in a modernised and sustainable manner as T&amp;T is a member of CARICOM (Caribbean Community) and is a strong advocate for safe, secure and environmentally sound shipping. Maritime services is underscored as one of seven (7) key national economic sectors that is considered instrumental in the effort to diversify the economy away from oil and gas in light of fluctuations in global petroleum market conditions. With passage of the amended shipping legislation, transition to a statutory maritime authority with greater levels of autonomy and decision making by an appointed board will allow greater levels of efficiency and flag state resources to be allocated to the regulation, expansion and sustainability of the maritime industry. Underwater noise is currently being discussed at the drafting Committee for the Shipping (Pollution Prevention) Bill which is expected to be passed in the coming one to two years, after stakeholder consultation with industry stakeholders, including shipbuilders, owners and operators.</p>
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The project implementation strategy for the GloNoise Partnership is based on the well-developed 'Glo-X' family of projects and includes:

- A.** A global component (Tier 1) with the mandate of developing global tools, guidance documents and resources, providing international coordination, information dissemination, awareness raising and establishing a strong cooperation with industry, NGOs and other stakeholders.
- B.** A regional component (Tier 2), providing regional coordination and harmonization, information sharing and capacity building.
- C.** A country component (Tier 3) that establishes a fast-track partnership of Lead Pilot Countries (LPCs) for GEF-eligible countries in the priority regions. LPCs are expected to perform activities that will raise awareness on the issue of anthropogenic noise from shipping and to build capacity aiding future management of the issue.

It is expected that Tier 1 would focus on development of awareness-raising materials (for example technical guidance documents), building capacity in countries to implement existing guidelines and mostly to collect more information to support IMO's policy dialogue as well as global guidance documents (toolkits) for implementation by experts at national levels. Concerning Tier 2, GloNoise will aim to establish a dialogue with regional bodies that are already dealing with underwater noise from shipping, and which have in some cases, convened expert groups on the issue such as for example OSPAR, HELCOM, ASOBANS, ACCOBAMS, UNEP/MAP and the EU. With regard to Tier 3, the

focus will be on capacity building and awareness raising efforts as well as baseline studies in some selected countries. Overall, the GloNoise Partnership project will have large elements of Tier 1 and 3 and smaller level of activities under Tier 2.

### **Theory of Change**

The project baseline is informed by IMO's technical guidelines on mitigating the adverse effects of underwater noise from shipping, and by policy discussions at multiple levels which are heavily weighted toward input from the developed world. The project's theory of change indicates causal pathways aimed at advancing the baseline towards the alternative scenario, and at facilitating the achievement of longer-term outcomes, i.e., a more inclusive and comprehensive approach to understanding and reducing detrimental impacts of underwater noise from shipping on marine biodiversity.

The project theory of change is shown in schematic form in *Figure 4* of the *Project Document*, reflecting progress across four causal pathways towards achievement of the envisaged longer-term outcomes and generation of global environmental benefits.

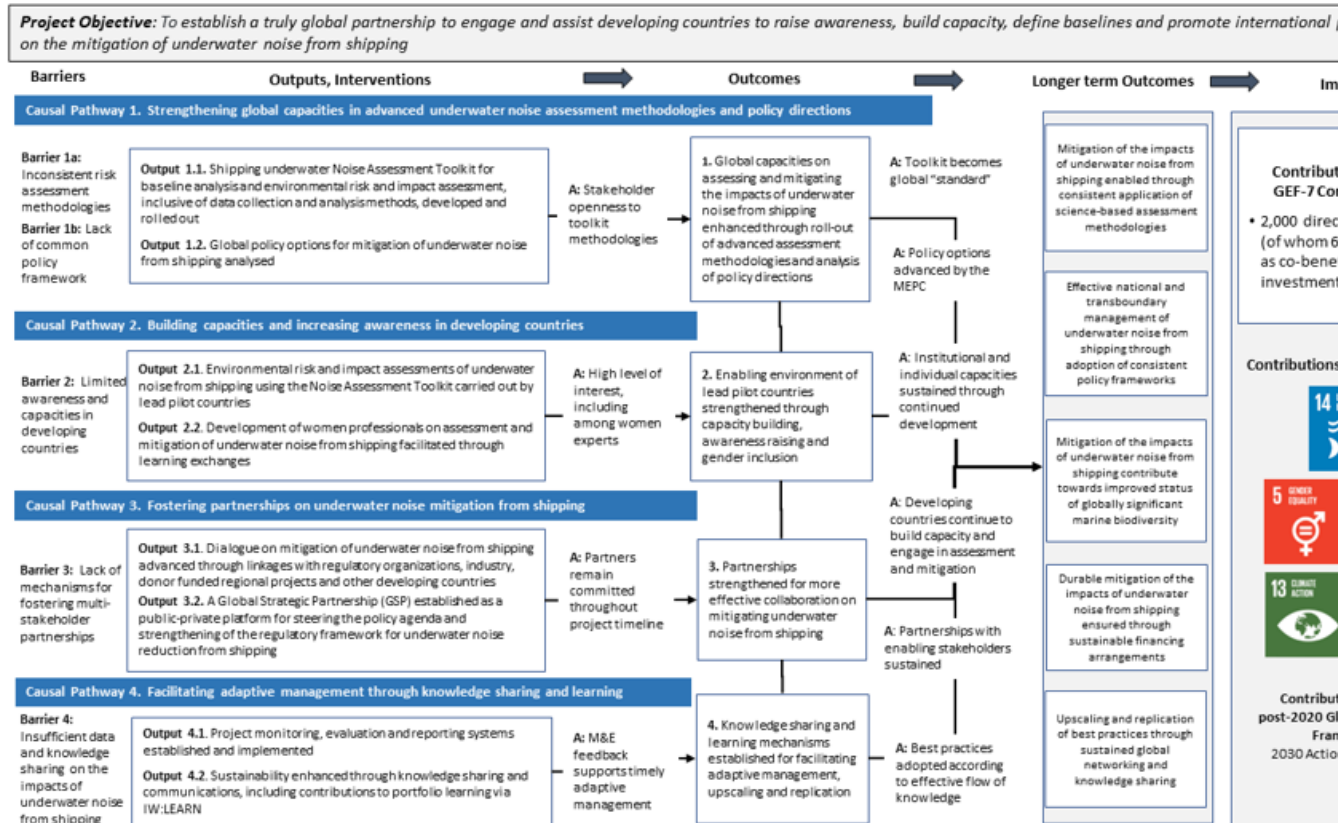
The first causal pathway (*Strengthening global capacities in advanced under water noise assessment methodologies and policy directions*) addresses the important barriers hindering adoption of common approaches on assessing and mitigating the impacts of underwater noise from shipping. As described in the barriers analysis, there are disparate and inconsistent methodologies being applied to assess risks and impacts of underwater noise from shipping and there is a lack of a common policy framework. The project strategy includes development and roll-out of a Noise Assessment Toolkit, for underwater noise from shipping, based on the findings of a comprehensive gap analysis on best practices and lessons learned. Global policy options will also be analysed to assess potential policy directions moving forward. Achievement of the project level outcome of 'increasing global capacities on assessing and mitigating the impacts of underwater noise from shipping enhanced through roll-out of advanced assessment methodologies and analysis of policy directions' largely depends on the assumption that stakeholders are open to applying the methodologies outlined in the Toolkit. The path towards longer-term outcomes includes consistent application of science-based assessment methodologies, which contribute towards mitigation of the impacts of underwater noise from shipping and improved status of globally significant marine biodiversity. It is assumed that the Toolkit may help advances towards a global 'standard' and that the MEPC advances the recommended policy options.

One of the primary aims of this project is strengthening capacities and involvement of developing countries in the assessment and mitigation of the impacts of underwater noise from shipping. Through the second causal pathway (*Building capacities and increasing awareness in development countries*), the project will address the barrier of limited awareness and capacities in developing countries by supporting capacity building in the Lead Pilot Countries on the application of the Toolkit, demonstrating risk assessments on selected marine ecosystems. Resources are also allocated to specifically help facilitate development of women professionals on assessment and mitigation of the impacts of underwater noise from shipping. Achievement of Outcome 2, i.e., the enabling environments of Lead Pilot Countries strengthened through capacity building, awareness and gender inclusion, it is assumed that there will be a sustained high level of interest among experts and other stakeholders in the lead pilot countries, including women. Moving towards longer-term outcomes, including effectively managing the impacts of underwater noise from shipping in national and regional waters, it is important that the engaged countries remain committed to developing both institutional and individual capacities and increase regional dialogue on knowledge sharing and agreement on common goals for management of transboundary marine ecosystems. Moving towards longer-term outcomes, this project will leverage the long-standing record of the IMO in developing transboundary institutional platforms for maritime safety, bilge control, waste, etc., and connect national and regional noise management into a similar global management structure.

Considering the global dimension of shipping, mitigation of the impacts of underwater noise requires engagement with a broad range of stakeholders, including regulatory agencies, industry, civil society, research institutes, regional organizations, governance mechanisms, and the donor community. The third causal pathway in the theory of change (*Fostering partnerships on underwater noise mitigation from shipping*) addresses the lack of mechanisms for sustaining multi-stakeholder partnerships. In addition to the LPCs and other stakeholders from developing countries, the Global Strategic Partnership (GSP) will involve strategic partners (e.g., see endorsement letters from an initial set of partners compiled in *Annex 18* to the Project Document) from the shipping industry, NGOs, the scientific community and other key stakeholders. The GSP will be a public-private platform for sharing experiences, facilitating dialogue on emerging science and mitigation advances, and fostering multi-stakeholder engagement, with the aim of achieving broader implementation of the IMO voluntary underwater noise guidelines. It is paramount that the partners engaged throughout the project's implementation period, including the GSP, are able to continue managing shipping noise in a sustained way after project closure. Achievement of durable longer-term outcomes requires constructive stakeholder engagement and sustainable financing commitments.

The science regarding both the assessment and mitigation of the impacts of underwater noise from shipping is evolving as knowledge continues to be generated and lessons from research are analysed and interpreted. The fourth causal pathway (*Facilitating adaptive management through knowledge sharing and learning*) responds to the fact that there is currently insufficient data and knowledge sharing. Knowledge generated during the project and lessons captured through monitoring and evaluation activities will be shared, communicated and disseminated to the stakeholder community,

feeding into existing knowledge platforms, including the GEF IW:LEARN and others. 1% of the project budget is dedicated to IW:LEARN activities. Achievement of upscaling and replication depends on effective flow of information and stakeholder willingness to adopt best practices. There are important inter-linkages across the other pathways of the theory of change, e.g., the global Toolkit will need be adaptable to emerging science and stakeholders must be committed to continued development of institutional and individual capacities.



Project Document Figure 4: Project theory of change

### Component 1: Global toolkit development and policy analyses

Component 1 is focused on strengthening global capacities through consolidating best practices on assessing the risks associated with underwater noise from shipping into a Global Toolkit, and on analysing policy options for advancing the policy framework on mitigation of impacts of underwater noise.

### Outcome 1: Global capacities on assessing and mitigating the impacts of underwater noise from shipping enhanced through roll-out of advanced assessment methodologies and analysis of policy directions

Results expected through achievement of Outcome 1 include:

- ? Global Noise Assessment Toolkit developed and functional on a publicly accessible online platform; (b) 100 visits to the Toolkit by the end of the project, (c) 400 people (of whom 120 are women) participating in online Toolkit training webinars
- ? Analysed policy options on strengthening management of the impacts of underwater noise from shipping presented at an IMO Committee meeting

The Outcome 1 results will be achieved through the implementation of the following two outputs.

***Output 1.1. Shipping underwater Noise Assessment Toolkit for baseline analysis and environmental risk and impact assessment, inclusive of data collection and analysis methods, developed and rolled out***

The activities under this output start with an analysis of existing underwater noise risk assessment methodologies, evaluating strengths and weaknesses and preparing a conceptual model for a global Noise Assessment Toolkit for baseline analyses and environmental risk and impact assessments. The Toolkit is envisaged to be a framework, providing guidance to users on the types of risks and impacts to consider in an assessment of the levels and types of underwater noise in a particular water body. This guidance may, where applicable, draw on available methodologies, datasets, and examples of completed assessments.

The Toolkit will contain the relevant elements of an environmental and social management framework (ESMF), which sets out the principles, rules, guidelines, and procedures for screening, assessing, and managing the potential social and environmental risks and impacts of forthcoming but as yet undefined interventions. This approach will provide a means to ensure consistency with UNDP social and environmental standards (SES). The project Chief Technical Advisor, after receiving induction training on UNDP SES from UNDP SES Specialists, will oversee the development of the Toolkit. The terms of reference for development of the Toolkit will include a provision specifying that consistency with UNDP SES shall be included in the design of the Toolkit.

Based on the conceptual model, a Noise Assessment Toolkit will be developed and rolled out firstly among expert practitioners, receiving feedback and allowing for improvements in the process. Considering that the science on underwater noise is evolving, it will be important to develop the Toolkit in a way that enables regular updates, including in line with updates envisaged to be made to

IMO's voluntary underwater noise guidelines. The Toolkit will be rolled out after review by IMO and UNDP. The developer of the Toolkit will deliver trainings to the host institution(s) on the functional operation details and help roll it out through a series of webinars and, potentially, self-paced training modules, advocating for equitable participation of women.

Indicative activities under Output 1.1 include:

1.1.1. Conduct an analysis of existing underwater noise risk assessment methodologies, evaluate strengths and weaknesses, and prepare conceptual model for a global Noise toolkit for baseline analysis and environmental risk and impact assessment, ensuring consistency with UNDP social and environmental standards.
1.1.2. Develop a Noise Assessment Toolkit (includes updating the Toolkit according to feedback received during roll-out sessions and providing technical support for one year).
1.1.3. Organise a stakeholder workshop, obtaining feedback on the Toolkit.
1.1.4. Deliver training to the host institution/IMO on the functional operation of the Toolkit, data requirements, updating possibilities, establishment of regional groupings, etc.
1.1.5. Roll out the Toolkit through a series of webinars and self-paced training modules, advocating for the equitable participation of women.

***Output 1.2. Global policy options for mitigation of underwater noise from shipping analysed***

Under this output, a gap analysis of current global and regional policies, guidelines and standards associated with mitigation of underwater noise from shipping will be conducted. The project will not propose new regulations; the regulatory framework in the form of the IMO voluntary underwater noise guidelines is in place. The analysis will follow a strategic environmental and social assessment (SESA) approach, assessing gaps in identifying potential adverse impacts associated with policy options. The key findings of the analysis report, including main gaps and recommendations on potential policy options, will be presented at one or more IMO Committee meetings, helping to advance the global dialogue on strengthening policy and regulatory frameworks on effective management of underwater noise from shipping. Review of the IMO voluntary underwater noise guidelines was initiated by the Sub-Committee on Underwater Noise during the PPG phase. The findings of the policy gap analysis are expected to feed into this process.

The terms of reference for conducting the policy analysis will include a provision describing that the analysis should follow a SESA approach. The gap analysis report, including recommendations on

potential released only after review and approval by IMO and UNDP, confirmed through decision of the Executive Committee.

Indicative activities under Output 1.2 include:

1.2.1. Following a SESA approach, conduct a gap analysis of current global, regional and national policies, guidelines and standards associated with mitigation of underwater noise from shipping and prepare recommendations for global policy options, ensuring consistency with UNDP social and environmental standards.

1.2.2. Present the key findings of the analysis report, including main gaps and recommendations on potential policy options at one or more IMO Committee meetings.

## **Component 2: Capacity building and awareness raising in participating developing countries**

As described under the baseline scenario evaluation, there is limited capacity and awareness among developing countries on issues associated with the impacts of underwater noise from shipping. Capacities of professionals in the LPCs will be strengthened by delivering learning-by-doing trainings on the application of the Toolkit developed under Output 1.1, and awareness among the broader stakeholder communities in these countries will be enhanced. This component also includes a dedicated output on developing capacities of women professionals in the LPCs.

### **Outcome 2: Enabling environment of lead pilot countries strengthened through capacity building, awareness raising and gender inclusion**

Results expected through achievement of Outcome 2 include:

? (a) Six risk assessments by LPCs (one per LPC) completed and results circulated among responsible governmental entities; (b) 150 people (of whom 45 are women) in the LPCs participating in capacity building

? 12 internal presentations (two per LPC) on risks, impacts and/or management of underwater noise from shipping made by LPC experts (with at least one female participant per country involved)

The Outcome 2 results will be achieved through the implementation of the following two outputs.

***Output 2.1. Environmental risk and impact assessments of underwater noise from shipping using the Noise Assessment Toolkit carried out by lead pilot countries***

National task forces will be established in the LPCs to oversee the capacity building activities. In order to ensure key stakeholders are involved in the capacity building process, the national task forces will oversee the development of a project specific stakeholder engagement plan for each of the LPCs, ensuring that vulnerable groups are included and that the process is adapted to each LPCs context. Professionals from the LPCs will be capacitated to use the global Toolkit and carry out the LPCs? baseline studies, risk assessments and preparation of relevant reports. Specific issues in actual ecosystems in LPCs will be assessed, with evaluation of different species as much as possible, e.g., marine mammals, fishes, invertebrates, turtles, etc. The project will not propose new regulations or undertake implementation of mitigation measures. The risk assessments completed under this output may include mitigation recommendations, depending on the level of risk. Such mitigation measures may include rerouting of ships, adjustments to the speed of ships, etc. One of the main ambitions of the project is to capacitate the LPCs in order to enable their administrations to propose measures specific to their geographies to better manage the risks associated with underwater noise from shipping in their waters.

Equitable participation of women will be promoted in the capacity building sessions, and trainings will also include discussion of other UNDP SES Programming Principles when conducting risk-based assessments. Outreach will extend to other national level stakeholders through convening national seminars in the LPCs.

Indicative activities under Output 2.1 include:

2.1.1. Overseen by national task forces, develop project specific stakeholder engagement plans for each of the six LPCs, to ensure key stakeholders are involved in the capacity building process.
2.1.2. Deliver capacity building workshops in the LPCs on the use of the Noise Assessment Toolkit, advocating for the equitable participation of women.
2.1.3. Applying the Toolkit developed under Output 1.1, the LPCs carry out environmental risk and impact assessments of underwater noise from shipping (and potentially other sound sources of interest), evaluating different species if possible, e.g., marine mammals, fishes, invertebrates, turtles, etc.
2.1.4. Convene national level seminars on the results of the baseline studies and environmental risk and impact assessments, with participation by governmental, research, civil society and private sector stakeholders.



***Output 2.2. Development of women professionals on assessment and mitigation of underwater noise from shipping facilitated through learning exchanges***

This output focuses on developing women professionals in the six LPCs on assessment and mitigation of underwater noise from shipping. This will be delivered through arranging learning exchanges with organizations implementing innovative and emerging approaches, and also supporting women in participating in international conferences and workshops. The national task forces in the six LPCs will agree on the method of deciding the candidates who will benefit from these activities.

Indicative activities under Output 2.2 include:

2.2.1. Arrange learning exchanges for women professionals from Lead Pilot Countries, with organizations implementing innovative and emerging approaches to assessing and mitigating underwater noise from shipping.
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2.2.2. Support women professionals in participating in international conferences on reducing anthropogenic underwater sound and mitigating effects to aquatic life.
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**Component 3: Fostering partnerships on underwater noise mitigation from shipping**

Component 3 focuses on fostering partnerships, one of the main aims of the GloNoise Partnership project, recognising that multiple stakeholders are engaged in and have varying degrees of interests and influence regarding management of the impacts of underwater noise from shipping.

**Outcome 3: Partnerships strengthened for more effective collaboration on mitigating underwater noise from shipping**

Results expected through achievement of Outcome 3 include:

? Two new references to underwater noise from shipping in marine ecosystem diagnostic analyses and/or or regional strategic action plans

? Ten meetings, conferences, and or dialogues on advocating for increased stakeholder engagement in assessing and mitigating underwater noise from shipping

The Outcome 3 results will be achieved through the implementation of the following two outputs.

***Output 3.1. Dialogue on mitigation of underwater noise from shipping advanced through linkages with regulatory organizations, industry, donor funded regional projects and other developing countries***

Under Output 3.1, the project will engage with ongoing dialogues among regulatory entities, in order to help facilitate improved flow of information on global policies, regulations and joint efforts to reduce anthropogenic underwater sound and mitigate effects to aquatic life. Engagement will also extend to the industry/private sector, exploring opportunities and modalities for creating a Global Industry Alliance (GIA), to provide a platform for industries to share knowledge and strive for collaborative action towards achieving sustainable and cost-effective measures for mitigating the impacts of underwater noise from shipping. The project will facilitate participation of women in these dialogues, as well as with linkages with other complementary projects and through twinning arrangements, as described below.

The project will also link up with other GEF-financed projects, as well as those funded by other donors. The transboundary and multi-country projects in the GEF International Waters portfolio offer important opportunities to achieve results at scale. For example, there may be opportunities to incorporate underwater noise mitigation measures into green shipping strategies, such as those outlined in the GEF-UNDP-PEMSEA Sustainable Development Strategy for the Seas of East Asia. Another example is the Strategic Action Programme for the Sustainable Management of Living Organic Resources by the Small Island Developing States of the Western and Central Pacific, which includes a goal to increase coordination with the shipping industry. There may also be an opportunity to reflect underwater noise from shipping issues in the ecosystem diagnostic analysis planned to be completed in the GEF-7 project Strengthening the stewardship of an economically and biologically significant high seas area – the Sargasso Sea (GEF ID 10620). These are only a few examples; the project will actively explore entry points with GEF IW projects, as well as with other complementary investments.

This output also includes promoting participation and partnerships in other developing countries, e.g., through twinning arrangements with the LPCs. Examples of proposed twinning arrangements are listed below – these will be confirmed in the early phase of project implementation.

<b>Lead pilot country</b>	<b>Proposed twinning arrangement</b>
South Africa	Madagascar
India	Malaysia, Georgia

Indicative activities under Output 3.1 include:

3.1.1. Link with national, regional and international regulatory organizations, fostering improved flow of information on global policies, regulations and joint efforts to reduce anthropogenic underwater sound and mitigate effects to aquatic life.
3.1.2. Strengthen engagement with the industry/private sector and other key stakeholders, participating in regional and global dialogues on emerging issues associated with the impacts and management of underwater noise from shipping, with a potential creation of a Global Industry Alliance (GIA) to encourage long-term engagement of the private sector, including beyond the lifetime of this project.
3.1.3. Engage with GEF and other donor funded marine ecosystem projects, advocating to incorporate underwater noise from shipping considerations into diagnostic analyses and development of strategic action plans.
3.1.4. Promote participation of other developing countries, through twinning arrangements with the Lead Pilot Countries and other collaborative arrangements.

***Output 3.2. A Global Strategic Partnership (GSP) established as a public-private platform for steering the policy agenda and strengthening of the regulatory framework for underwater noise reduction from shipping***

The Global Strategic Partnership (GSP) will be organized via inviting membership, defining terms of reference and drafting a strategic action plan outlining specific activities and the way GSP members will contribute. Described further in the stakeholder engagement description, the GSP aims to be a multi-stakeholder coalition of countries, private industries, non-governmental Organizations and centres of excellence at global, regional and national levels. The types of members include national government partners, shipping and ports sector, technology providers, universities, and environmental organizations and institutions. The GSP will organise thematic dialogues, support knowledge-based studies and review and comment on policy options, including those recommended under Output 1.2. The project will facilitate and encourage inclusion of women in the GSP related activities.

Indicative activities under Output 3.2 include:

3.2.1. Establish the GloNoise GSP through developing a terms of reference, and drafting a 5-year strategic action plan
3.2.2. Organise thematic dialogues on priority issues outlined in the strategic action plan, support knowledge-based studies on shipping underwater noise, review and comment on policy options, including those recommended under Output 1.2.

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## **Component 4: Monitoring, learning, adaptive feedback and evaluation**

Component 4 is focused on ensuring adaptive management is supported through effective monitoring and evaluation, communications and knowledge management during project implementation and extending beyond the lifetime of the project, facilitating achievement of longer-term outcomes.

### **Outcome 4: Knowledge sharing and learning mechanisms established for facilitating adaptive management, upscaling and replication**

Results expected through achievement of Outcome 4 include:

- ? One online global knowledge forum on assessing and mitigating underwater noise from shipping convened
- ? Stakeholder recommendations integrated into a project sustainability plan based on end-of-project feedback
- ? One GEF IW Conference participated in, and two Experience Notes produced and disseminated through IW:LEARN channels

#### ***Output 4.1. Project monitoring, evaluation and reporting systems established and implemented***

The activities under this output are designed to put in place enabling procedures and protocols to facilitate effective monitoring and evaluation. The project inception workshop is a critical milestone on the implementation timeline, providing an opportunity to validate the project document, including the screening of social and environment risks; confirming governance implementation arrangements; assessing changes in relevant circumstances and making adjustments to the project results framework accordingly; verifying stakeholder roles and responsibilities; updating the project risks and agreeing to mitigation measures and responsibilities; and agreeing to the multi-year work plan. An inception workshop report will be prepared and disseminated among the Global Project Task Force (GPTF) members.

GPTF and Executive Committee meetings will be convened regularly, providing oversight and guidance to the implementation of the project. The GEF core indicators and other project metrics will be monitored and evaluated according to the Monitoring Plan. The implementation of the project safeguard management plans, including the Stakeholder Engagement Plan and the Gender Action Plan, will be monitored and evaluated during the project implementation timeframe. Adaptive management

measures will be implemented according to feedback from the M&E activities, and the safeguard management plans will be updated accordingly. Project results and M&E findings will be documented in project progress reports, including the annual GEF project implementation reports (PIRs).

According to GEF requirements for medium-sized projects, an independent terminal evaluation will be conducted prior to project closure. The management responses to the terminal evaluation and the final results achieved will be documented in the final report of the project.

Indicative activities under Output 4.1 include:

4.1.1. Organise the project inception workshop, including review of work plan, project results framework, tracking tools, stakeholder engagement plan, other safeguard frameworks and plans; a record of the inception workshop will be documented in a project inception report.
4.1.2. Implement elements of the project governance structure, including convening regular meetings of the Executive Committee (ExCom) and the Global Project Task Force (GPTF).
4.1.3. Carry out regular monitoring and evaluation of the GEF core indicators and other metrics included in the project results framework, and conduct regular monitoring and evaluation of the SESP, Gender Action Plan, Stakeholder Engagement Plan, and other safeguard frameworks and management plans
4.1.4. Prepare the GEF Project Implementation Reports (PIRs) and other progress reports.
4.1.5. Procure and support an independent terminal evaluation of the project, according to UNDP and GEF guidelines.
4.1.6. Prepare the final report for the project; including the PIR for the last year of implementation, the terminal evaluation report, and the management response to the terminal evaluation report.

***Output 4.2. Sustainability enhanced through knowledge sharing and communications, including contributions to portfolio learning via IW:LEARN***

Under this output, the GloNoise Partnership communications and knowledge management strategy and action plan will be developed and implemented. Aspects such as project website, project dissemination activities, project visibility aspects, etc. will be defined and implemented to achieve this output. This output also includes development of a sustainability plan for the project, providing a practical framework for facilitating further progress towards achievement of longer-term outcomes and global environmental benefits, as outlined in the project Theory of Change. Gender equality and women's empowerment considerations will be incorporated into the communications and knowledge management strategy.

The project will participate in an international expert workshop or forum, e.g., the International Conference on the Effects of Noise on Aquatic Life?, which has convened on a three-year cycle since

2013, starting in Budapest that year, followed by Dublin in 2016, in Den Haag in 2019 and in Berlin in 2022. The next conference is expected in 2025. The project will also design and organise an online knowledge forum, showcasing the knowledge generated on the project and in the sector in general.

An end-of-project stakeholder feedback survey will help inform the development of the sustainability plan.

The results produced by the GloNoise Project will substantially contribute to the GEF knowledge base and to relevant GEF IW processes, events and activities. To this end, the Project will closely collaborate with the GEF International Waters Learning and Resource Exchange Network (IW:LEARN) Project[1] to facilitate uptake of lessons learned and knowledge exchange. 1% of the project budget is dedicated to IW:LEARN activities. Activities under this output include:

- ? Participation to the GEF International Waters Conferences[2] (landmark biannual events of the IW portfolio). Depending on the schedule decided by IW:LEARN, the project will commit its contribution to at least one IW Conference throughout the duration of the project and will ensure the participation of representatives from the LPCs;
- ? Production of at least two Experience Notes to showcase worthy results to be disseminated through IW:LEARN channels and the GloNoise website;
- ? Participation to IW:LEARN Twinning with other GEF relevant projects and programs;
- ? Contribution to IW:LEARN.net with relevant content (i.e. multimedia material, data visualization, etc.), including to social media and newsletters;
- ? Participation to GEF Communities of Practice (CoPs), when relevant.

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[1] More info at [www.iwlearn.net](http://www.iwlearn.net)

[2] More info on GEF IW Conferences: <https://iwlearn.net/events/conferences>

Indicative activities under Output 4.2 include:

4.2.1. Develop and implement a GloNoise Partnership communications and knowledge management strategy and action plan, including creation and updating of a project website/webpage, production and dissemination of knowledge products and communication materials, and targeted awareness raising.
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4.2.2. Participate in an International Expert Workshop / Forum (e.g., the International Conference on the Effects of Noise on Aquatic Life) on 'state of knowledge and required future steps on shipping underwater noise mitigation' and the outcome documented for use in future policy making.
4.2.3. Design and convene an online knowledge forum on assessing and mitigating the impacts of underwater noise from shipping.
4.2.4. Develop and initiate the implementation of a GloNoise Partnership sustainability plan, including formulating recommendations for follow-up actions.
4.2.5. Participate and contribute towards portfolio learning via IW:LEARN.

**Alignment with GEF focal area**

Global shipping is truly international and transboundary and its environmental problems such as underwater noise radiation require international coordination and cooperation. As such, the GloNoise Partnership project is strongly linked and is fully in line with the GEF-7 International Waters (IW) focal area strategy related to development of transboundary collaboration on marine environmental protection and Blue Economy developments. It also supports the IW's objective of sustaining healthy coastal and marine ecosystems.

According to the International Waters focal area programming strategy, GEF-7 encourages decisions towards achieving the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, in particular Sustainable Development Goals 14 (Life below Water). The GloNoise Partnership fully aligns with this GEF-7 priority area with its strong focus on the impact on marine life. Also, the goal of the GEF-7 strategy is to maintain globally significant biodiversity in landscapes and seascapes via the following main objectives:

- i. Mainstream biodiversity across sectors as well as landscapes and seascapes;
- ii. Address direct drivers to protect habitats and species; and
- iii. Further develop biodiversity policy and institutional frameworks.

One such area of consideration for protection of biodiversity is the earth's hydrosphere and oceans (i.e., International Waters) which the GloNoise Partnership concentrates on. Further examination of the above 'Objective 2 - Address direct drivers to protect habitats and species', GEF-7 provides three main entry points; one of which is 'International Waters Focal Area/Coastal and Marine Protected Areas'. The GloNoise Partnership closely relates to this entry point and will in particular support its 'Objective 1 - Strengthening Blue Economy opportunities'.

Promoting Blue Economy solutions for sustainable development requires key actors, including the marine transport sector, to aim for more sustainable use of marine and coastal resources. For this purpose, GEF encourages transboundary collaborations such as those advocated under the Large Marine Ecosystems (LMEs) concept in order to foster an holistic understanding of the issues, root causes, and solutions, applicable to large bodies of waters. GEF-7 aims for strengthening Blue Economy opportunities, through three areas of strategic actions:

- i. Sustaining healthy coastal and marine ecosystems;
- ii. Catalysing sustainable fisheries management; and,
- iii. Addressing pollution reduction in marine environments.

The proposed GloNoise Partnership links in particular to strategic actions 1 and 3. Specifically, the project is directly aligned with strategic action 3 on pollution reduction in the marine environment. Addressing pollution reduction in marine environments, GEF-7 aims to support a variety of policy developments, promote public-private partnerships and stimulate private sector engagement. One specific area highlighted in the GEF-7 Programming Directions is:

?Increase understanding of marine noise in a transboundary context potentially through target research, towards stimulating the adoption by private sector of good practices aiming at avoiding and mitigating the impacts of marine noise on marine fauna.?

The GloNoise Partnership fully supports this element of GEF-7 Programming Directions through concentrating on marine noise in a transboundary context (including the partnership of Lead Pilot Countries) as well as including promotion of public-private partnership for more effective environmental governance in the form of a Global Strategic Partnership (GSP). GEF support for developing countries in understanding and assessing their marine underwater noise due to shipping will provide an important catalyst for fostering effective multi-stakeholder collaboration on the effective management of this global issue.

The reduction of noise from shipping is expected to require alternative and quieter machinery power systems for ships, which means a transition from diesel-based prime movers to, for example, fuel cells with fairly low noise and vibration levels. Additionally, it is expected that the reduction of ship operation speed would be another technical / operational measure for noise abatement purposes. Both the move to fuel cell technologies and slower navigation would lead to significant reductions in shipping fuel consumption and therewith contributing to lowering greenhouse gas emissions.



### **Incremental/additional cost reasoning and expected contributions from the baseline**

Without this project, globally significant marine species in developing countries would be less studied and less protected ? irrespective of their economic or biodiversity value. Enforcement would result in a disconnected patchwork of regulations and avoidance of certain ports, as well as more flag-shopping, gravitating towards the regulatory path of least resistance. To avoid this, a more global approach of cooperation and data sharing as well as development of best practices with input from all countries and stakeholders is necessary. This is where the GloNoise Partnership project seeks to make a contribution. The GEF investment facilitates and leverages global cooperation to help fill the knowledge gaps and initiate the process of deploying that information to encourage a more comprehensive implementation of the IMO voluntary underwater noise guidelines. Laying this specific foundation of global cooperation provides clear global environmental benefits to marine life, which shares the aquatic soundscape with international shipping.

### **Global environmental benefits**

One of the important global benefits of the project relates to the fact that **the GloNoise Partnership heavily concentrates on developing countries where awareness and knowledge on the subject of underwater noise from shipping is limited**. This focus will bring significant benefits in creating capacity, understanding the baselines, catalysing subsequent activities and helping with buy-in for future national, regional and international policies.

The project represents the first-ever initiative to promote national-regional-global action in understanding and assessment of the scale of underwater noise from international shipping and its impacts on marine life. As a result of the global partnerships developed, the risk-based assessment of underwater noise carried out and the country baseline studies completed, the project will result in significant transboundary synergy of diverse players which is essential for dealing with this issue. GEF support is instrumental for the creation of this globally oriented platform for collaboration and partnership with developing countries.

**The project will provide substantial global environmental benefits via a move towards the reduction of underwater noise in the world's coastal waters and LMEs where the majority of marine life exists.** In doing so, the GloNoise Partnership will contribute to the reduction of a major environmental stress for marine life and the protection and sustainability of marine resources and future Blue Economy objectives.

An important global environment benefit generated by this project will be the **increased human capital** of marine professionals in the Lead Pilot Countries, better enabling stakeholders from developing countries to be more meaningfully involved in regional and global dialogues and to make science-based contributions to decision-making processes on regulatory, technological and other conservation management measures regarding the impacts of underwater noise from shipping.

This project will provide an opportunity for the GEF to pursue its mandate related to the protection of marine life and associated biodiversity and its strategic priorities related to enabling long-term policy reforms at global, regional and national levels as well as the move towards Blue Economy. Without the intervention of the GloNoise Partnership and due to the aforementioned limited awareness and capacity in developing countries, it is unlikely that the issue of underwater noise from shipping will receive the required attention on a global level and, as a result, it is unlikely that globally oriented policy developments (for example at the IMO) can be pushed beyond the current baseline scenario.

A further global benefit relates to the **alignment of the project with global efforts towards achieving the objectives of UN SDG 14 on 'life below water' and UN SDC17 on 'partnerships for the goals'**. This project is designed in line with the mandate of the UN Agenda 2030, which IMO is committed to helping achieve, as well as with the mandate and priorities of IMO's Marine Environment Protection Committee in relation to helping advance the global policy dialogue on the mitigation of underwater noise, and related issues including, but not limited to, protection of the marine environment and the reduction of greenhouse gas emissions from shipping.

The observation that the GEF funding in support of the GloNoise Partnership will bring to the table a significant level of added baseline funding in the form of co-financing can be considered another global benefit with positive environmental impacts.

### **Innovative nature, sustainability and potential for scaling up**

The GloNoise project aims to deliver tangible benefits to marine biodiversity and ecosystem via contributing to reduction of underwater noise from shipping. For this purpose, it seeks to use innovative risk-based approaches to underwater noise impact assessment, embarks on wide ranging capacity building in developing countries and forms a truly global partnership that would act as a platform for innovation and future sustainability and scalability of the undertaken efforts as outlined below.

#### ***Innovative nature:***

The project will implement innovative risk-based impact assessment of underwater noise due to shipping and as such will elevate the current knowledge on the subject. With use of such techniques, the project will promote the international efforts whereby best practice solutions will be examined and promoted in developing countries as a way of reducing marine underwater noise.

The project also seeks new and effective partnerships between public and private sectors that will be unique in the area of international and transboundary efforts on underwater noise reduction. To ensure transboundary nature of the project activities, the global-regional-national actions will ensure the engagement of key stakeholders at all levels.

The GloNoise Partnership project focuses on developing countries, in which shipping plays significant roles and as such is one of the first initiatives to do so on the topic of underwater noise from shipping. This innovative and welcome development worldwide will bring more impetus to policy development within the IMO arena. One of the main ambitions of the project is to capacitate the LPCs in order to enable their administrations to engage in IMO Committee meetings more actively, adding their voice to the management of the risks of underwater noise from shipping.

Overall, GloNoise will develop a truly innovative international, multi-stakeholder platform on underwater noise from shipping with developing countries as well as public-private partnerships at its core. It will catalyse further understanding of the subject, use innovative impact assessment methods, and promote best practice and technologies that would mitigate the underwater noise by shipping.

***Sustainability:***

This project delivers sustainability structures to ensure project results advance long after GEF funding ceases. The main sustainability structure is an **institutional framework** that serves as the foundation on maritime underwater noise and upon which future efforts on capacity building, knowledge creation, policy making and implementation of best practice at national, regional and international levels will evolve into key project partnerships (LPCs and GSP) initiated under this project. These partnerships will act as sustaining fabric for future transboundary and global **governance** of the management of the impacts of underwater noise from shipping. Engaging with existing national and regional institutions (such as Regional Seas programmes, GEF LME programmes, etc.) that are key stakeholders for such transboundary issues and will help ensure longer term sustainability of the efforts as well.

**Financial** sustainability will be advanced through strengthening multi-stakeholder dialogues and promoting win-win scenarios of mitigating underwater noise for industry and ecosystem health. Broader adoption of risk-based assessment approaches is intrinsically connected to cost-effectiveness by balancing science-based probable ecosystem impacts against real shipping costs from best practice operational and technology changes.

The GloNoise Partnership project will encourage the formation of national task forces that will act as seeds for longer-term, cross-sectoral institutional mechanisms at the national level. Raising awareness and building capacity in the developing countries will involve engagement of national experts that will sustain such efforts at the national level, with outreach to senior level government officials, to enhance **socio-political sustainability**. The proposed twinning arrangements between the LPCs and other developing countries will broaden the awareness and strengthen capacities. Improved management of the impacts of underwater noise from shipping is expected to generate socioeconomic benefits, e.g., in the ecotourism and fisheries sectors. Increased awareness among these sectors and other segments of local and national economies will help expand stakeholder engagement and strengthen advocacy efforts with respect to adoption of management measures.

Fundamental to this project is protecting marine biodiversity from maritime shipping noise. Commercial shipping noise impacts marine fauna physiology and behaviour that in turn impact breeding, foraging, prey avoidance, etc. and therefore the sustainability of the marine ecosystems in which they live. In this context, the project has a strong focus on **environmental sustainability**.

***Potential for scaling up:***

Scaling up to achieve wider participation in global shipping noise management is the driving force behind engaging pilot countries in this project. Used successfully in other Glo-X projects, the lessons learned by each pilot country can be applied to other countries of similar level of development, commercial shipping traffic, marine ecosystem resources, etc. It will be critical to communicate the benefits derived by pilot countries from collaborative marine sound scape management between commercial interests and governmental, environmental, and social interests. Highlighting these benefits will ensure wider participation and the scaling up of this effort beyond the immediate project. For example:

? Lead Pilot Counties (LPCs) participating in the GloNoise Partnership project will be expected to pass on acquired knowledge and experience gained through the project to other countries in their regions via twinning arrangements and other regional activities.

? New knowledge and experience gained by LPCs and regional partners through their participation in the GloNoise Partnership project will be beneficial to the Lead Pilot Countries as they engage in IMO Committee meetings on the topic of underwater noise reduction due to shipping beyond the existing voluntary 2014 IMO Underwater Noise Guidelines.

This project is expected to act as a catalyst for future scaled up activities in this area via promotion of awareness on this important environmental issue, via development of technical capacity and institutional capacity while working with stakeholders.

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[1] More info at [www.iwlearn.net](http://www.iwlearn.net)

[2] More info on GEF IW Conferences: <https://iwlearn.net/events/conferences>

#### **1b. Project Map and Coordinates**

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

The project map is presented in *Annex D*.

#### **1c. Child Project?**

**If this is a child project under a program, describe how the components contribute to the overall program impact.**

#### **2. Stakeholders**

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

**Civil Society Organizations**

**Indigenous Peoples and Local Communities**

**Private Sector Entities** Yes

**If none of the above, please explain why:**

**Please provide the Stakeholder Engagement Plan or equivalent assessment.**

**Summary of previous stakeholder engagement activities**

Stakeholder consultations during the PPG phase were initiated through an IMO Circular Letter sent to all 175 IMO Member States, and Associate Members, in September 2022, which described the GloNoise Partnership project and invited countries to submit expressions of interest to participate as a Lead Pilot Country. Thirteen (13) countries submitted expressions of interest, which included filled out questionnaires outlining the key underwater noise issues, institutional arrangements and ongoing and planned initiatives.

Shortly after the publication of the Circular Letter, the Chief of IMO's Department of Partnerships and Projects, in a presentation made in the margins of the 72<sup>nd</sup> IMO Technical Cooperation Committee meeting in October 2022, presented the GloNoise Partnership project to Member States, Associate Members, intergovernmental organizations and non-governmental organizations in attendance. A list of accredited participants in attendance is contained in IMO document TC 72/INF.1 (enclosed for reference). In the presentation, the objectives of the project were highlighted, and Member States were encouraged to express an interest to step forward and become a Lead Pilot Country. A subsequent series of conversations has taken place with developing countries from across the globe, which led to the abovementioned thirteen expressions of interest.

A separate set of conversations is ongoing between the IMO Secretariat and Member States which have already been focusing on underwater noise issues, including through research and policy initiatives. This has led to the inclusion of Transport Canada as a Strategic Partner in the GloNoise Global Strategic Partnership (GSP). Sweden and other countries have further expressed an interest.

Consultations with international organizations and NGOs are also ongoing, including with the World Wildlife Fund and other interested parties. The International Whaling Commission, the global body responsible for management of whaling and conservation of whales was the first to step forward and be confirmed as a strategic partner.

Conversations with various private sector parties are taking place, which have led to the inclusion of strategic partners SGS Société Générale de Surveillance SA's Marine Field Services & Monitoring Division, the Korea Research Institute of Ships & Ocean Engineering, BIMCO - one of the world's largest international shipping associations, representing 60% of global merchant shipping measured in tonnage. We are further delighted to have the Royal Institute of Naval Architects, an international professional organisation for naval architects on board. Further conversations have been ongoing with the International Association of Classification Societies (IACS), who have distributed an invitation to join the GloNoise Partnership project as strategic partner to their membership of global classification societies.

In February 2023, in a meeting in London between the Chair of the UN's Joint Group of Experts on the Scientific Aspects of Marine Environment Protection (GESAMP) and IMO Secretariat colleagues, the Chair conveyed GESAMP's interest in principle to support the GloNoise Partnership with scientific research and reporting.

Collaboration will further be sought with other underwater noise related projects, whether funded by public or private donors. Two projects which have already agreed to share their experiences and results with the GloNoise Partnership, and become members of the Global Strategic Partnership, are the JoRES Project and the GATERS Innovation Action Project:

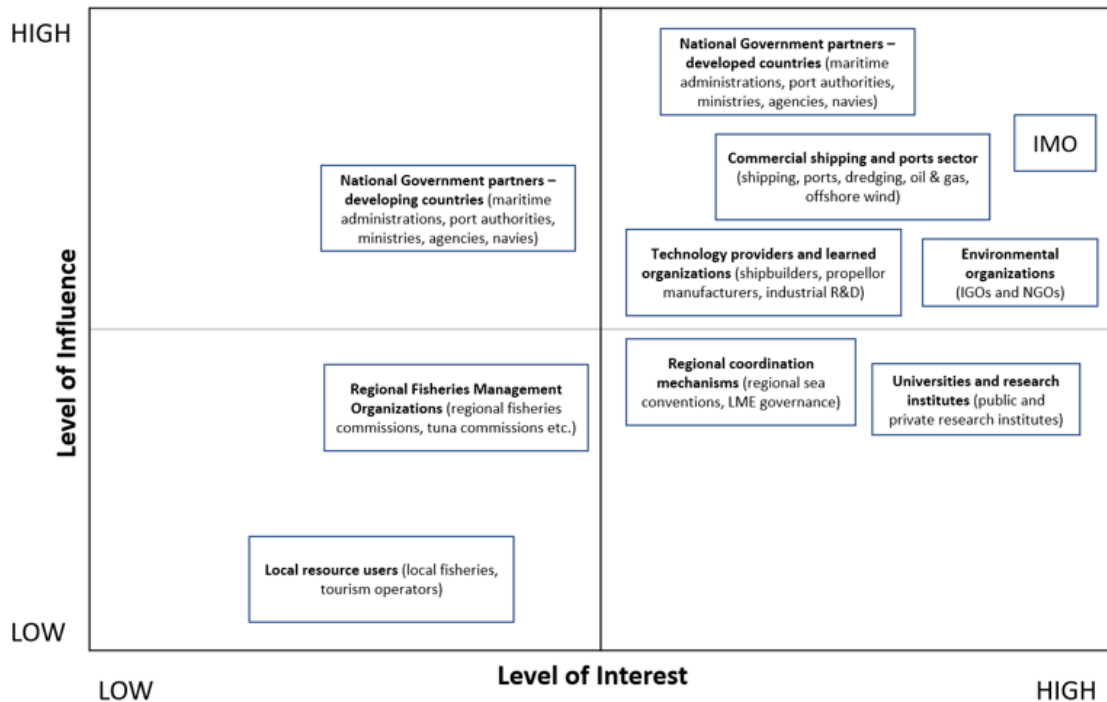
- The industry-funded Joint Research Project (JoRES) has the mission to collect and develop a full set of ship performance data. The project unites more than 50 leading companies from across 17 countries, and has a budget of USD 1.65M.
  
- The University of Strathclyde coordinated GATERS Innovation Action Project is funded by the European Commission under its Horizon 2020 research funding programme (ID: 860337). The overall objective of GATERS is to exploit the potential benefits and impact of the Gate Rudder System (GRS) on shipping operations, mainly for the 'Retrofit' application of the GRS on ships, and to study its impact, amongst others, on the reduction of noise and vibration, including the positive environmental impact of the GRS associated with improvements of the aft-end vibrations, cavitation and reduced underwater radiated noise.

Initial conversations have been had with other ongoing projects, and further collaborations are expected.

Letters from confirmed Global Strategic Partners have been included in **Annex 18**. Further strategic partners will come on board during the implementation period of the project, as we aim to build a truly global partnership of cross-sectoral strategic partners.

## Project Stakeholders

Stakeholder influence and interests are represented below.



**Figure 8: Stakeholder influence and interests**

## Stakeholder Engagement Programme

The purpose and goals of the stakeholder engagement plan are summarised below.

1. Adding value to project activities.
2. Encouraging adherence to values of transparency, trust, equity, and fairness.
3. Promoting responsiveness to identified needs and the highest ethical standards and respects for differing priorities and values.
4. Including different types of stakeholder groups.
5. Being flexible to adapt to changing circumstances.
6. Fostering well-coordinated and planned implementation.
7. Generating and responding to feedback

Stakeholder group	Why included (interests)	Engagement methods
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National Government partners	Primary objective of the project is to strengthen capacities of developing countries. The LPCs and other countries are interested in being more meaningfully engaged in the global issue management of underwater noise from shipping	<ul style="list-style-type: none"> <li>? Membership in the Global Project Task Force.</li> <li>? National Task Forces</li> <li>? Membership in the GSP.</li> <li>? Participation in capacity building activities, stakeholder dialogues, and analyses of policy options.</li> <li>? Project communications and knowledge management.</li> </ul>
Shipping and ports sector	The interest of this stakeholder group is to be included in policy level discussions and share knowledge of feasibility of mitigation measures.	<ul style="list-style-type: none"> <li>? Membership in the GSP.</li> <li>? Participation stakeholder dialogues.</li> <li>? Project communications and knowledge management.</li> </ul>
Technology providers and learned organizations	The interest of this stakeholder group is to be included in policy level discussions and share knowledge of feasibility of mitigation measures, including technological ones.	<ul style="list-style-type: none"> <li>? Membership in the GSP.</li> <li>? Participation stakeholder dialogues.</li> <li>? Project communications and knowledge management.</li> </ul>
Environmental organizations	Environmental organizations actively advocate for protection of marine biodiversity and marine ecosystems, and promote for strengthened assessment and mitigation of the risks and impacts of underwater noise from shipping	<ul style="list-style-type: none"> <li>? Membership in the GSP.</li> <li>? Participation in capacity building activities, stakeholder dialogues, and analyses of policy options.</li> <li>? Project communications and knowledge management.</li> </ul>
Regional coordination mechanisms	This stakeholder group is interested in sustainable management of marine ecosystems and equitable ocean governance.	<ul style="list-style-type: none"> <li>? Membership in the GSP.</li> <li>? Participation in capacity building activities, stakeholder dialogues, and analyses of policy options.</li> <li>? Project communications and knowledge management.</li> </ul>

Universities and Research Institutes	Universities and research institutes are interested in the development of assessment methodologies and mitigation approaches.	<ul style="list-style-type: none"> <li>? May contribute directly to the development of the Toolkit.</li> <li>? Membership in the GSP.</li> <li>? Participation in (and/or delivery of) capacity building activities, stakeholder dialogues, and analyses of policy options.</li> <li>? Project communications and knowledge management.</li> </ul>
Resource users, e.g., large fisheries commissions and local resource users (fishers, tourism operators, etc.)	The interests of local resource users is on the how mitigation measures may impact the resources they are reliant upon.	<ul style="list-style-type: none"> <li>? Project communications and knowledge management.</li> </ul>

### Resources and Responsibilities

Responsibilities for stakeholder engagement activities are distributed across the following positions.

The **Project Director**, who will also be the chairperson of the Project Board, has overall responsibility for the implementation of the project.

The **Project Board** will provide strategic oversight to the project, including stakeholder engagement objectives.

The **Global Project Task Force**, including representatives from the Lead Pilot Countries, will provide strategic guidance on facilitating national level stakeholder engagement and foster learning across the participating countries, also extending to the twinning countries.

The **Project Manager** will have responsibility for the day-to-day implementation of the project and be tasked with the important role of ensuring that stakeholders are engaged according to plan.

The **Chief Technical Advisor** will support the Project Manager in the implementation of the stakeholder engagement plan.

### **Grievance Redress Mechanism**

The Implementing Partner (IMO) will establish and implement a transparent, fair, and free-to-access project-level Grievance Redress Mechanism (GRM), which will be put in place at the start of implementation. All stakeholders may raise a grievance at any time to the Project Management Unit, the Implementing Partner (IMO), Implementing Agency (UNDP), or the GEF.

**The mandate** of the GRM will be to:

- (i) receive and address any concerns, complaints, notices of emerging conflicts, or grievances (collectively *?grievance?*) alleging actual or potential harm to affected person(s) (the *?claimant(s)?*) arising from the project.
- (ii) assist in resolution of grievances between and among project stakeholders; as well as the various government ministries, agencies, and NGOs, and others (collectively, the *?Stakeholders?*) in the context of the project.
- (iii) Conduct itself at all times in a flexible, collaborative, and transparent manner aimed at problem solving and consensus building.

**The functions** of the GRM will be to:

- (i) Receive, log and track all grievances received.
- (ii) Provide regular status updates on Grievances to Claimants, Project Board members and other relevant stakeholders, as applicable.
- (iii) Engage the Project Board members, LPC government institutions and other relevant stakeholders in grievance resolution.
- (iv) Process and propose solutions and ways forward related to specific grievances *within a period not to exceed sixty (60) days* from receipt of the grievance.
- (v) Identify growing trends in grievances and recommend possible measures to avoid the same.

- (vi) Receive and service requests for, and suggest the use of, mediation or facilitation.
- (vii) Elaborate grievance reports, make said reports available to the public, and more generally work to maximize the disclosure of its work (including its reports, findings, and outcomes).
- (viii) Ensure increased awareness, accessibility, predictability, transparency, legitimacy, and credibility of the GRM process.
- (ix) Collaborate with partner institutions and other NGOs and other entities to conduct outreach initiatives to increase awareness among stakeholders as to the existence of the GRM and how its services can be accessed.
- (x) Ensure continuing education of PB members and their respective institutions about the relevant laws and policies that they will need to be aware of to participate in the development of effective resolutions to grievances likely to come before the GRM.
- (xi) Monitor follow up to Grievance resolutions, as appropriate.

In addition to the project-level GRM, UNDP's Accountability Mechanism, consisting of the Stakeholder Response Mechanism (SRM) and Social and Environmental Compliance Unit (SECU), provide additional options for grievance redress. Further information can be found on the UNDP website at:

<http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/>

### **Monitoring and Reporting**

The implementation of project stakeholder engagement plan will be regularly monitored and evaluated. The Chief Technical Advisor will oversee the monitoring and evaluation activities, and results will be documented in progress reports and reported to the Global Project Task Force and Project Board.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

**Select what role civil society will play in the project:**

**Consulted only; Yes**

**Member of Advisory Body; Contractor;**

**Co-financier;**

**Member of project steering committee or equivalent decision-making body;**

**Executor or co-executor;**

**Other (Please explain)**

Problems related to anthropogenic underwater noise are inter-disciplinary by nature, so the success of the project largely depends on the involvement and cooperation of a broad group of stakeholders. Likewise, international shipping and its related underwater noise pollution is truly an international issue and thus require engagement of various countries when considering mitigation. Thus, the GloNoise Global Strategic Partnership (GSP) aims to be a multi-stakeholder coalition of countries, private industries, non-governmental organizations and centres of excellence both at global, regional and national levels. The following types of institutions and organizations are expected to play a role:

- ? *National Government partners:* Maritime administrations; port authorities, environmental agencies and ministries, etc. These are generally the public sector organizations.
- ? *Shipping and ports sector:* Shipping, ports and possibly other sectors that operationally emit underwater sound such as dredging, oil and gas offshore wind industry. These are generally the private sector organizations.
- ? *Technology providers and learned organizations:* Shipbuilders, propeller manufacturers, and industrial R&D organisations that could play major role in noise reduction of ships. These are generally the private sector organizations.
- ? *Universities* that focus on underwater noise from shipping research. These are generally public organization but potentially can be private organizations as well.
- ? *Environmental Organizations and Institutes:* National and regional relevant institutions including marine research institutes, NGOs, Regional Sea Conventions and related International/Regional Organizations dedicated to protection of cetaceans, etc. These are generally public or private organizations.

The GSP will help with promotion of policy options and supporting the LPCs via development of multi-stakeholder knowledge-exchange and enabling partnerships. The project will also recruit strategic Member State partners for inclusion in the GSP. These will include the Members States that have been prominent in the discussions at MEPC and SDC including those below:

- ? Australia
- ? Canada

- ? Chile
- ? New Zealand
- ? United Kingdom
- ? United States
- ? Regional Seas Bodies
- ? Governmental departments
- ? NGOs (e.g., IWC, IFAW, WWF, FOEI)

Endorsement letters from the International Whaling Commission (International Organization), SGS Soci?t? G?n?rale de Surveillance SA?s Marine Field Services & Monitoring Division (Private Sector), the Royal Institute of Naval Architects (International Professional Organization) and Transport Canada (Government Agency) were obtained during the PPG phase and are compiled in *Annex 18* to the Project Document. Further prospective GSP participants may sign up at any stage during the project preparation phase and the project implementation phase.

A *Stakeholder Engagement Plan* (*Annex 7* to the Project Document) has been developed to guide the implementation team. Stakeholder engagement will take place at two stages:

? Engagement of primary stakeholders leading to LPCs and GSP: Stakeholder consultations during the PPG phase were initiated through an IMO circular letter sent to all 175 IMO Member States and Associate Members which described the GloNoise Partnership project and invited countries to submit expressions of interest to participate as a Lead Pilot Country. Thirteen (13) countries submitted expressions of interest, which included filled in questionnaires outlining the key underwater noise issues, institutional arrangements and ongoing and planned initiatives. In the margins of the 72nd IMO Technical Cooperation Committee meeting in October 2022, in a presentation to Member States, Associate Members and Intergovernmental organizations in attendance, made by the Chief of IMO?s Department of Partnerships and Projects, the GloNoise Partnership project was highlighted to a broader set of stakeholders and Member States were encouraged to express an interest to step forward and become a Lead Pilot Country or strategic partner.

? Engagement of other project beneficiaries and wider stakeholders during the execution of the project: This will take place via a process of setting up a National Task Force in each LPCs that would ensure that engagement of all stakeholders in the project. This model has been used very successfully under Glo-X member of projects and will be implemented under this project.

Component 3 of the project has been devoted to not only engage key stakeholders in the form of the GSP but also through fostering partnerships through participation in multi-stakeholder dialogues, workshops and with other GEF IW projects. The *Stakeholder Engagement Plan* also includes a description of the project?s grievance redress mechanism (GRM) and information on UNDP?s Accountability Mechanism.

The project will connect with similar projects based on similar approaches to share resources and collective knowledge management products, and to facilitate dissemination through global ongoing South-South and global platforms, the GEF IW:LEARN platform, the UN South-South Galaxy knowledge sharing platform and PANORAMA[1].

In addition, the project will explore opportunities for meaningful participation in specific events where IMO-UNDP could support engagement with the global development discourse on underwater noise. The project will furthermore provide opportunities for regional cooperation with countries that are implementing innovative technologies and approaches.

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[1] <https://panorama.solutions/en>

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

#### **Provide the gender analysis or equivalent socio-economic assesment.**

The IMO's Strategic Plan and High-level Action Plan specifically address the goal of strengthening the role of women in the maritime sector (High-level Action 3.5.2) in line with the United Nations General Assembly (UNGA) resolution A/RES/72/147. That resolution which highlights the need raised in previous resolutions regarding "Strengthening the institutional arrangements for support of gender equality and the empowerment of women" calls upon all actors, including Governments, the United Nations system and its specialized agencies, other international organizations and civil society to intensify and accelerate action to achieve the full and effective implementation of the Beijing Declaration and the Platform for Action. In addition, the World Maritime Day theme for 2019 was "Empowering Women in the Maritime Community". This provided an opportunity to raise awareness of the importance of gender equality, in line with the UN's Sustainable Development Goals (SDGs), and to highlight the important contribution of women within the maritime sector.

At the operational level, the Programme for the Integration of Women in the Maritime Sector (IWMS) remains the primary vehicle for supporting the SDG 5 to "Promote gender equality and empower women". The project will operate in accordance with the above-mentioned SDG and High-level Action and also in line with the UNDP Gender Equality Strategy 2022-2025 and the GEF Policy on Gender Equality (SD/PL/02, July 01, 2018).





groups based on the absolute deviation from gender parity. Countries in Group 1 are closest to gender parity, while those in Group 5 are further (i.e., have the greatest gender disparity).

The **Gender Inequality Index (GII)** measures gender inequalities (the loss in human development due to inequality between female and male achievements) in three key dimensions ? reproductive health, empowerment, and labour market. Reproductive health is measured by maternal mortality ratio and adolescent birth rates; empowerment is measured by the shares of parliamentary seats held and population with at least some secondary education by each gender; and labour market participation is measured by the labour force participation rates for women and men.

### **GENDER ACTION PLAN**

Recognizing the importance of diverse and inclusive marine science in addressing ocean sustainability challenges in the 21st century as envisaged by the United Nations Decade of Ocean Science for Sustainable Development (2021-2030), the gender action plan for the GloNoise Partnership project aims to help facilitate gender equity and women?s empowerment in the field of underwater noise from shipping. The gender mainstreaming strategy includes:

- ? Ensure equitable opportunities for women in participating in development and training of risk and impact assessment methodologies.
- ? Facilitate equitable representation and opportunities for women in the recruitment of the project team, establishment of national task forces, as well as the Global Strategic Partnership.
- ? Offer mentoring opportunities, e.g., through learning exchanges with scientists and institutions conducting state-of-the-art research in the field.

Specific project level actions are outlined below.

#### *Gender Mainstreaming Framework*

<b>Objective</b>	<b>Project level actions</b>
Facilitating women empowerment	? Advocate for equitable representation of women in the Project Board, Global Project Task Force, and National Task Forces

Objective	Project level actions
Enhancing gender equality	<ul style="list-style-type: none"> <li>? Output 1.1. Ensure inclusion of women in the trainings delivered on the GloNoise Toolkit.</li> <li>? Output 2.1. Ensure inclusion of women in the environmental risk and impact assessments in the LPCs.</li> <li>? Output 2.1. Advocate for women participation in the national seminars convened in the LPCs.</li> <li>? Output 2.2. Arrange learning exchanges for women professionals in the LPCs, and support women professionals in participating in regional and international conferences.</li> <li>? Output 3.1. Facilitate participation of women through twinning arrangements, e.g., mentoring provided by women professionals in the LPCs.</li> <li>? Output 3.2. Ensure inclusion of women in the GSP dialogues and meetings.</li> <li>? Output 4.2. Incorporate gender equality considerations in the project communications and knowledge management strategy and action plan.</li> </ul>
Promoting gender awareness	<ul style="list-style-type: none"> <li>? Deliver gender awareness training to project team members and contracted partners.</li> </ul>
Providing equal opportunity employment	<ul style="list-style-type: none"> <li>? Ensure terms of reference, recruitment notices, etc. provide equal employment opportunities for women.</li> </ul>

The project team will also encourage participating women professionals to consider joining relevant regional and global communities of practice, such as:

? **IMO's Women in Maritime Associations (WIMA)**: Seven WIMAs have been established in West and Central Africa, in Eastern and Southern Africa, in the Arab States, Asia, the Caribbean, Latin America and the Pacific, covering some 152 countries and territories and over 490 participants. The GloNoise Partnership project will aim to engage WIMAs, where they exist in the proposed Lead Pilot Countries or their respective regions, to, for example, raise awareness of women in maritime at GloNoise activities/training events. The GloNoise Partnership project will make strategic use of IMO's annual women in maritime day, 18th May, to highlight the important role of women in leadership roles in maritime administrations and environmental protection. Where possible, events will be organized, potentially together with other ongoing Glo-X projects, to place specific focus on gender equality and equality of opportunities in the maritime industry.

? **Women in Marine Mammal Science (WIMMS)**, an initiative formed to establish a global community of marine mammal scientists whose aim is to help women achieve their full career potential in this field.

? **Network of Women in Marine Science (WIOMSA)**, which addresses gender equality issues facing women marine scientists in the Western Indian Ocean (WIO) region.

### Roles and Responsibilities

The roles and responsibilities associated with implementation of the gender action plan are described below.

<b>Position / Function</b>	<b>Roles and Responsibilities</b>
Project Board	The Project Board will provide strategic oversight to the project, ensuring that the interests of the representative members are considered, including gender mainstreaming objectives.
Global Project Task Force	The GPTF will be used to raise awareness of, and emphasize, the importance of the inclusion of women at all levels of the activities this project intends to undertake both at the national, regional and global levels.
Chief Technical Advisor	The Chief Technical Advisor will be responsible for overseeing the implementation and monitoring of the progress of implementing project safeguards plans, including the SESP, Stakeholder Engagement Plan and Gender Action Plan, to ensure that UNDP's socioeconomic standards (SES) are fully met and the reporting requirements are fulfilled.
Project Assistant	The Project Assistant will be responsible for ensuring effective implementation of the gender action plan, including training, monitoring and evaluation, and regular review of the plan.

### **Monitoring and Evaluation**

The implementation of the gender action plan will be regularly monitored and evaluated. Progress towards achievement of the gender mainstreaming objectives will be monitored and evaluated on an annual basis at a minimum. Results will be documented in annual project implementation reports (PIR) and other progress reports. Adaptive management measures will be put in place, as needed, to adjust the plan to current circumstances and findings obtained through monitoring and evaluation.

Monitoring and evaluation of the implementation of the gender action plan are included in the project M&E plan, with costs allocated accordingly, and gender mainstreaming indicators are integrated into the project results framework, specifically the following:

<b>Indicator</b>	<b>End of Project Target</b>
<b>Core Indicator 11 (IRRF Indicators 4.1.1, 4.2.1):</b> Number of direct project beneficiaries disaggregated by gender as a co-benefit of GEF investment (individual people)	2,000 (of whom 600 are women)

<p><b>Indicator 3:</b> (a) Global Noise Assessment Toolkit developed and functional through a publicly accessible online platform; (b) number of visits to the online Toolkit by the end of the project; (c) number of people participating in online Toolkit training webinars (gender disaggregated)</p>	<p>(a) Global Noise Assessment Toolkit developed and functional on a publicly accessible online platform; (b) 100 visits, (c) 400 people (of whom 120 are women) participating in online Toolkit training webinars</p>
<p><b>Indicator 5:</b> (a) Number of underwater noise marine environmental risk assessments by LPCs using the approved Global Toolkit; (b) number of people in the LPCs participating in capacity building (gender disaggregated)</p>	<p>(a) One risk assessment per LPC completed and results circulated among responsible governmental entities; (b) 150 people (of whom 45 are women) in the LPCs participating in capacity building</p>
<p><b>Indicator 6:</b> Number of internal presentations on risks, impacts and/or management of underwater noise from shipping made by LPC experts to relevant stakeholders (gender disaggregated)</p>	<p>12 internal presentations (2 per LPC) made by LPC experts (with at least one woman per country participating)</p>

[1] UNESCO, 2017. "Gender Mainstreaming in Marine Science", Gender and Science.

[2] UNDP, 2022. Human Development Report 2021/2022.

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

Yes

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

**Improving women's participation and decision making** Yes

**Generating socio-economic benefits or services for women**

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

Yes

**4. Private sector engagement**

**Elaborate on the private sector's engagement in the project, if any.**

As indicated within the project description, the industry/private sector engagement is important to this project due to the need for technical and operational ship quietening technologies for noise mitigation. Involving industry from the very early stages of the risk assessments also ensures a better buy-in to any regulatory measures at later stages beyond the project lifetime. Industry sector candidates for the GloNoise Global Strategic Partnership (GSP) include the following:

- ? Marine/Naval engineering companies including acoustic specialists
- ? Port authorities
- ? Shipbuilding companies
- ? Classification societies
- ? Environmental consultants including acoustic specialists

Private/industry sector enterprises and associations are expected to share experiences and emerging technologies through GSP roundtable dialogues, technology demonstrations, short presentations, etc. For example, the Joint Research (JoRES) project, a global initiative uniting more than 50 leading industry companies and one of the project's co-financing partners, is working on technological innovations that are expected to contribute to reduction of underwater noise from shipping. The GATERS project is a public-private partnership investigating, demonstrating and assessing retrofitting solutions regarding specific noise-reduction technologies on gate rudders. Classification societies are working towards improving standards on ship design and architecture to better address noise reduction ? this is an example of the private sector regulating itself. Another example is the current offerings of SGS Soci?t? G?n?rale de Surveillance on sound profiles around offshore oil rigs. Also, shipping lines could present what they are doing in the underwater noise space, e.g., regarding retrofitting and maintenance.

The project will also explore the potential creation of a Global Industry Alliance (GIA) on underwater noise, similar to the GIAs set up under the GEF-UNDP-IMO GloMEEP project, the GEF-UNDP-IMO GloFouling Partnerships project, and the Norway-FAO-IMO GloLitter Partnerships project to encourage long-term engagement of the private sector, including beyond the lifetime of this project. The project's limited implementation period of 24 months, paired with the existing experience with the creation and engagement of GIAs, which can often take a rather long period of time, make that the project will explore the creation of a GIA as one of the possible options for the engagement with the Private Sector.

## 5. Risks to Achieving Project Objectives

**Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):**

The identified risks that could affect the implementation and results of the project are described in the risk register in **Annex 5**, along with proposed mitigation measures and recommended risk owners who would be responsible to manage the risks during the project implementation phase. The social and environmental risks that were assessed as part of the *Social and Environmental Screening Procedure* (SESP) are also consolidated into the risk register. The SESP (see **Annex 4**) was updated during the PPG phase, as required by UNDP's Social and Environmental Standards (SES). The overall risk-rating for the project is ?Moderate?.

*Extracted from Project Document Annex 4: UNDP Social and Environmental Screening Procedure (SESP)*

<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
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<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
<p><b>Risk 1:</b> Lack of capacity may limit the effectiveness of duty-bearers (government agencies) from advancing country-country level focus on issues associated with underwater noise from shipping.</p>	<p>I = 3 L = 3</p>	<p>Moderate</p>	<p>The project strategy has a specific focus on strengthening capacities of developing countries on assessing and mitigating the risks and impacts of underwater noise from shipping. The likelihood of this risk is considered moderately likely (L=3). The impact of this risk is rated as intermediate (I=3), because the potential impacts would be low to medium in magnitude.</p>	<p>The selection of the six lead pilot countries (Argentina, Chile, Costa Rica, India, South Africa, and Trinidad and Tobago) was based on review of information provided by the countries through an expression of interest process. The participation of the countries in the expression of interest confirms their interest in increasing national level capacities and also their openness to take part in the trainings proposed under the project. Under Output 2.1, in-person and online capacity building activities are planned with the lead pilot countries to strengthen national level enabling environments for management of the impacts of underwater noise from shipping on marine ecosystems. In order to ensure key stakeholders are involved in the capacity building process, national task forces will</p>



<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
				<p>oversee the development of project specific stakeholder engagement plans for each of the six LPCs. Specialists will be recruited to deliver capacity building and the project Chief Technical Advisor will be responsible to ensure inclusive and effective delivery of the trainings and other capacity building activities.</p>

<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
<p><b>Risk 2:</b> Future regulatory framework developed for underwater noise reduction from shipping may lead to a decrease in international trade with inequitable economic and social consequences for developing countries.</p>	<p>I = 3 L = 2</p>	<p>Moderate</p>	<p>The likelihood of this risk is rated as low (L=2), as international trade is likely to continue to increase. The potential impact of this risk is considered intermediate (I=3) because the consequences of possible future changes in the regulatory framework would likely be fairly site-specific, e.g., rerouting traffic to avoid migratory pathways of certain marine wildlife.</p>	<p>The project will not propose new regulations; the regulatory framework in the form of the IMO voluntary underwater noise guidelines is in place. The analysis will follow a strategic environmental and social assessment (SESA) approach, assessing gaps in identifying potential adverse impacts associated with policy options. The key findings of the analysis report, including main gaps and recommendations on potential policy options, will be presented at one or more IMO Committee meetings. The findings of the policy gap analysis are expected to feed into this process. The terms of reference for conducting the policy analysis will include a provision describing that the analysis should follow a SESA approach. The gap analysis report,</p>

<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
				including recommendations on potential released only after review and approval by IMO and UNDP, confirmed through decision of the Executive Committee.

<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
<p><b>Risk 3:</b> Project activities and approaches might not fully incorporate or reflect views of women and ensure equitable opportunities for their involvement and benefit.</p>	<p>I = 3 L = 3</p>	<p>Moderate</p>	<p>The likelihood of this risk is rated as moderately likely (L=3), based on available information on the typical levels of participation of women in underwater noise risk assessment and management planning. The potential impact of the risk is considered intermediate (I=3) because the number of people potentially affected is low, including a few professionals in each of the six lead pilot countries.</p>	<p>During the PPG phase, this risk was assessed in the gender analysis and managed through the Gender Action Plan, which will be integrated into overall project management systems. The gender analysis and gender action plan will be regularly reviewed and updated to account for gender differentiated impacts. The project strategy includes a dedicated output (Output 2.2) on developing capacities of women professionals, including through learning exchanges and participation in regional and international workshops and conferences. Women participation will also be facilitated across the other project outputs, including capacity building activities on the global Underwater Noise Toolkit in Output</p>

<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate, Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
				<p>1.1, application of the Toolkit among the lead pilot countries in Output 2.1, involvement in stakeholder dialogues and workshops in Output 3.1, representation in the GloNoise Strategic Partnership in Output 3.2, and in communications and knowledge management in Output 4.2.</p> <p>The Project Assistant, reporting to the Project Manager and Chief Technical Advisor, will oversee the monitoring of the gender action plan.</p>

<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
<p><b>Risk 4:</b> Poorly assessed risks may result in unintended damage to sensitive marine ecosystems and biodiversity.</p>	<p>I = 4 L = 2</p>	<p>Moderate</p>	<p>The likelihood of this risk is rated as low (L=2), as the risk assessment methodologies applied on the project will be selected from vetted tools and approaches. Considering the science on the risks and impacts associated with underwater noise from shipping is evolving and the potential geographic scale of the risk assessments may be large, the impact of this risk is rated as extensive (I=4).</p>	<p>Under Output 1.1 (Activity 1.1.1), the project will conduct an analysis of existing underwater noise risk assessment methodologies, evaluate strengths and weaknesses, and prepare conceptual model for a global Noise toolkit for baseline analysis and environmental risk and impact assessment. The Toolkit will contain the relevant elements of an environmental and social management framework (ESMF), which will also provide a means to ensure consistency with UNDP social and environmental standards (SES). The project Chief Technical Advisor, after receiving induction training on UNDP SES from UNDP SES Specialists, will oversee the development of the Toolkit. The terms of reference for development</p>

			<p>of the Toolkit will include a provision specifying that consistency with UNDP SES shall be included in the risk assessment framework. The Toolkit will be rolled out after review and approval by IMO and UNDP, confirmed through decision of the Executive Committee. Substantial resources are allocated for delivering capacity building to the lead pilot countries on the application of the Toolkit methodologies. The risk assessments completed under Output 2.1 may include mitigation recommendations, depending on the level of risk. Such mitigation measures may include rerouting of ships, adjustments to the speed of ships, etc. The project will not propose new regulations or support implementation of mitigation measures. The project seeks to better enable the LPCs to implement the IMO voluntary underwater noise guidelines. This</p>
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<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
				<p>may entail mitigation measures depending on national analyses and deliberations and based on locally specific conditions. Any mitigation measures will be the sovereign decision of the countries themselves at a later stage.</p>



<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
<p><b>Risk 5:</b> The assessment methodologies on the risks and impacts of underwater noise to shipping to marine biodiversity may be sensitive to climate change, such as ocean acidity and associated temperature, and potential mitigation measures, e.g., rerouting, may result in increased greenhouse gas emissions.</p>	<p>I = 3 L = 3</p>	<p>Moderate</p>	<p>The likelihood of this risk is rated as moderately likely (L=3), considering the evolving science on the risks and impacts associated with underwater noise from shipping. The potential impact is rated as intermediate (I=3) because possible mitigation measures would likely be specific to certain migratory pathways that are sensitive to underwater noise.</p>	<p>The Noise Toolkit to be developed under Output 1.1 will be based on an analysis of existing methodologies and current tools and approaches. The Toolkit will contain the relevant elements of an environmental and social management framework (ESMF), which will also provide a means to ensure consistency with UNDP social and environmental standards (SES). The project Chief Technical Advisor, after receiving induction training on UNDP SES from UNDP SES Specialists, will oversee the development of the Toolkit. The terms of reference for development of the Toolkit will include a provision specifying that consistency with UNDP SES shall be included in the risk assessment framework. The Toolkit will be rolled out after</p>

			<p>review and approval by IMO and UNDP, confirmed through decision of the Executive Committee.</p> <p>The risk assessments completed under Output 2.1 may include mitigation recommendations, depending on the level of risk. Such mitigation measures may include rerouting of ships, adjustments to the speed of ships, etc. The project will not propose new regulations or support implementation of mitigation measures. The project seeks to better enable the LPCs to implement the IMO voluntary underwater noise guidelines. This may entail mitigation measures depending on national analyses and deliberations and based on locally specific conditions. Any mitigation measures will be the sovereign decision of the countries themselves at a later stage.</p> <p>Complementary measures in the industry to transition towards a lower carbon footprint, e.g., introduction of zero</p>
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<i>Risk Description</i>	<i>Impact and Likelihood (1-5)</i>	<i>Significance (Low, Moderate Substantial, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures for risks rated as Moderate, Substantial or High</i>
				or low carbon fuel sources, would help moderate risks associated with re-routing or other mitigation measures.
<p><b>Risk 6:</b> Stakeholders involved in project activities may be at a heightened risk of virus exposure, e.g., stakeholder meetings, workshops, by a possible prolonged or recurrent COVID-19 pandemic or similar disease outbreak.</p>	<p>I = 3 L = 3</p>	<p>Moderate</p>	<p>The likelihood of the risk of a prolonged or recurrent COVID-19 pandemic during the implementation phase of the project is rated as moderately likely (L=3). Considering that there are no field level activities included in the project strategy, the potential impact of the risk is rated as intermediate (I=3). While in-person trainings are preferred for some of the capacity building activities, delivering these trainings remotely will be feasible if needed.</p>	<p>COVID-19 related risks and opportunities have been assessed during the PPG phase and are annexed to the Project Document. Adaptive management measures will be implemented to reduce the risk of virus exposure during a prolonged or recurrent COVID-19 pandemic, or similar crisis. For example, virtual meetings will be held where feasible. Other possible mitigation measures, as warranted, will be implemented, e.g., ensuring physical distancing, providing personal protective equipment, avoiding non-essential travel, delivering training on risks and recognition of symptoms, etc.</p>

The identified risks will be further reviewed during monitoring of the SESP and safeguard instruments during project implementation. To meet the SES requirements the following were prepared during the PPG phase: (i) Stakeholder analysis and Stakeholder Engagement Plan (**Annex 7**) and (ii) Gender analysis and Gender Action Plan (**Annex 8**). Targeted analyses of underwater noise risk assessment methodologies and of policy options for management of underwater noise from shipping will be conducted during the project implementation phase.

In accordance with UNDP's SES guidelines, the following safeguard assessments were also completed during the PPG phase:

- ? Climate and Disaster Screening Report (see **Annex 10**)
- ? Covid-19 Risks and Opportunities (see **Annex 11**)

Project implementation will also ensure full adherence to government, IMO and UNDP directives related to COVID-19. The project will institute adaptive management as needed to reduce the risks of community spread. For example, meetings will be held remotely using virtual platforms as much as possible, health hazard assessments will be considered for gatherings of multiple people, and mitigation measures will be implemented, e.g., ensuring physical distancing, providing personal protective equipment, avoiding non-essential travel, delivering trainings on risks and recognition of symptoms, etc. As part of the regular review of the Social and Environmental Screening Procedure (SESP), COVID-19 related risks will be addressed, and specific mitigation measures will be updated and implemented.

#### **6. Institutional Arrangement and Coordination**

**Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.**

#### **Coordination**

-

The process management and monitoring of the project will be carried out through the 3-Tier approach which has been successfully established and used across the entire GEF-UNDP-IMO Glo-X family of projects. The 3-Tier approach includes global, regional and national elements:

- ? A global tier providing international coordination and information dissemination, including the development of toolkits and guidelines, development of capacity building materials, baseline information gathering and establishing a strong cooperation with industry and NGOs through a multi-stakeholder platform.

? A small regional tier facilitated and coordinated by the LPCs in relevant regions through hosting twinning arrangements and other regional events aimed at regional harmonization, information sharing, training and capacity building.

? A pilot country tier that not only facilitates all the national capacity building activities but also provides support for the baseline studies at each LPC, stakeholders engagement, the dissemination of information to national stakeholders to increase awareness and cooperation in dealing with maritime underwater noise.

The GloNoise Partnership's multi-tiered implementation strategy is shown below in *Figure 5* of the Project Document.



*Project Document Figure 5: Three tier activity-based process management model of GloNoise Partnership*

In terms of project management and governance, the successful model established under GEF-funded Glo-X projects will be used. These include the successfully implemented GloMEEP (<http://glomeep.imo.org>) and GloBallast Partnerships (<http://globallast.imo.org>) projects and the ongoing GloFouling Partnerships project (<http://glofouling.imo.org>). Accordingly, the project will be implemented by UNDP and executed by the IMO. Thus, a Project Board, representing UNDP, and IMO and the LPCs will provide high-level coordination and support for the project's implementation. The coordination for the project will be done through IMO as the Implementing Partner (Executing Agency), with stakeholder and process engagement at global, regional and national levels. Within IMO, the overall day-to-day project management and coordination will be in the hands of a dedicated, lean Project Management Unit (PMU).

The strategic advisory body will be the Global Project Task Force (GPTF) with representatives from GEF, UNDP, IMO, the Lead Pilot Countries, Twinning Countries, and Global Strategic Partners. The GPTF will meet at the inception, mid-point and conclusion of the project to review progress, provide strategic advice and guidance, and support adaptive project management. The GPTF will also approve the project's strategic direction and major outputs.[1]

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### **Section 1: General roles and responsibilities in the project's governance mechanism**

Implementing Partner (i.e., Executing Agency): The Implementing Partner for this project is the International Maritime Organization (IMO).

The Implementing Partner (Executing Agency) is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of GEF resources and the delivery of outputs, as set forth in this document.

The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,  
? Signing the financial report or the funding authorization and certificate of expenditures.

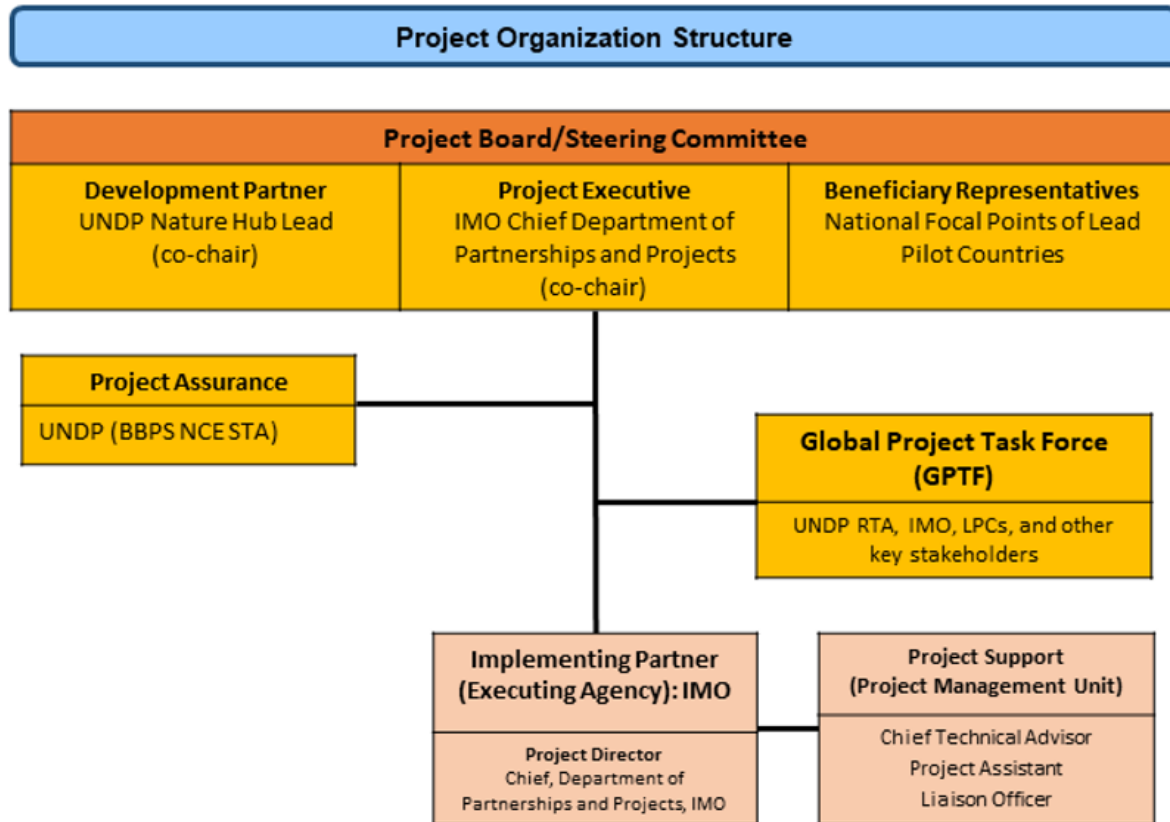
Project Stakeholders and Target Groups: The key project stakeholders are the beneficiaries in the participating Lead Pilot Countries (LPCs), including the people benefitting from increased knowledge and skills on implementing risk-based assessment tools and methodologies; people participating in trainings; people in the LPCs acquiring skills and knowledge through capacity building and learning-by-doing assessments; people participating in national level seminars and conferences; people in other developing

countries benefitting through twinning arrangements with the LPCs; and people participating in regional and global dialogues and workshops. The Global Project Task Force (GPTF) will include representation of the LPCs, enabling engagement in decision making for the project..

UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

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[1] These Governance and Management Arrangements replicate the established Project Governance and Management arrangements of the ongoing GEF-UNDP-IMO GloFouling Partnerships project, as evidenced on Page 65 of its Project Document, which can be consulted on the GEF website here: <https://www.thegef.org/projects-operations/projects/9605>, and follow the longstanding, satisfactory governance arrangements between UNDP and IMO, including through the successfully concluded GEF-UNDP-IMO GloMEEP project and the GEF-UNDP-IMO GloBallast Partnerships project.



BBPS NCE: Bureau for Policy and Programme Support, Nature Climate and Energy  
 STA: Senior Technical Advisor  
 RTA: Regional Technical Advisor

*Project Document Figure 6: Project Organization Structure*

First line of defense:

? The UNDP BBPS NCE TA will ensure Project Assurance and the UNDP BBPS NCE Executive Coordinator will represent UNDP on the Project Board. This ensures that the UNDP function on the Project Board is from the BPPS NCE team, not the Regional Hub.

Second line of defense:

? The UNDP GEF Executive Coordinator and BPPS Director can revoke DOA, cancel or suspend the project, or provide enhanced oversight.

UNDP BPPS NCE assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules



and Internal Control Framework. A UNDP BPPS NCE representative will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

### **Section 3: Segregation of duties and firewalls vis-?-vis UNDP representation on the Project Board**

As noted in the [Minimum Fiduciary Standards for GEF Partner Agencies](#), in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

In the GloNoise Partnership project, UNDP is only performing an implementation oversight role in the project vis-?-vis our role in the Project Board and in the project assurance function and therefore a full separation of project implementation oversight and execution duties has been assured.

### **Section 4: Roles and responsibilities of the project organization structure**

#### **a) Project Board:**

**Project Board:** All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two main (mandatory) roles of the Project Board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the [?Provide Oversight?](#) section of the POPP). This is the primary function of the Project Board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence

of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.

2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the [?Manage Change?](#) section of the POPP).

Requirements to serve on the Project Board:

- ? Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ? Meet annually; at least once.
- ? Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- ? Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ? Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

Responsibilities of the Project Board:

- ? Consensus decision making:
  - o The Project Board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
  - o Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;
  - o The Project Board is responsible for making management decisions by consensus.
  - o In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
  - o In case consensus cannot be reached within the Project Board, the UNDP representative on the Project Board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ? Oversee project execution:
  - o Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.

- o Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
- o Address any high-level project issues as raised by the project manager and project assurance;
- o Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies);
- o Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
- o Track and monitor co-financed activities and realization of co-financing amounts of this project.
- o Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
- o Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

? Risk Management:

- o Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
- o Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.

- o Address project-level grievances.

? Coordination:

- o Ensure coordination between various donor and government-funded projects and programmes.
- o Ensure coordination with various government agencies and their participation in project activities.

**Composition of the Project Board:** The composition of the Project Board must include individuals assigned to the following three roles:

**1. Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP

for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the Project Board with representatives of another category, it typically does so with a development partner representative. **The Project Executive is the IMO Chief of the Department of Partnerships.**

**2. Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative are the national focal points of the LPCs

**3. Development Partners:** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. **The Development Partner(s) is the UNDP Nature Hub Lead.**

**b) Project Assurance:**

Project assurance is the responsibility of each Project Board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional, national), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meetings and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is the UNDP NCE Senior Technical Advisor (STA).

**c) Project Management ? Execution of the project:**

The **Project Manager/Chief Technical Advisor for this project** is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the ExCom for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers. The PMU will also include a Project Assistant.

A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative.

The primary PMU representative attending board meetings is the **Project Manager/Chief Technical Advisor**.

#### **7. Consistency with National Priorities**

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

#### **Consistency with national priorities and regional and international conventions:**

#### **Consistency with national priorities:**

The Lead Pilot Countries (LPCs) of the GloNoise Partnership project provided information on how underwater noise from shipping relates to national priorities (see *Profiles of Lead Pilot Countries* in Annex 12 to the *Project Document*). The LPCs are also Parties to international and regional conventions, regulations or agreements. The GloNoise Partnership project will support the LPCs to further mainstream

underwater noise issues at the national level and help build their capacity to further engage in fulfilling the relevant regional and international commitments.

***Consistency with regional legal and policy frameworks:***

A number of regional bodies address anthropogenic underwater noise through regional legal and policy frameworks, yet these are largely associated with the waters surrounding the EU, the North-East Atlantic, the Mediterranean and the Baltic. For example, the EU's Marine Strategy Framework Directive (MSFD) recognizes underwater noise as an ocean pollutant and has a descriptor (descriptor 11) for Good Environmental Status (GES), specifically referring to underwater noise which requires EU Member States to have strategies in place for monitoring, and, where necessary, mitigating underwater noise. The GloNoise Partnership project aims to identify best practices from existing baseline efforts and promote similar approaches in developing countries.

**Consistency with international priorities:**

The GloNoise Partnership project will contribute, inter alia, to biodiversity targets and conservation measures consistent with the obligations of participating countries under the Convention on Biological Diversity (CBD), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the UNCLOS main theme of preservation of marine resources and environment, the IMO guidelines and policy developments, and a significant number of regional efforts as outlined above. A summary of the project's consistency with international and regional priorities follows below.

Convention on Biological Diversity (CBD): Decision XII/23 of the CBD Conference of the Parties (COP) 12 addressed the issue of impacts of anthropogenic underwater noise on marine and coastal biodiversity and invited competent organizations, including IMO, to take appropriate measures within their mandates, to avoid, minimize and mitigate the potential significant adverse impacts of anthropogenic underwater noise on marine and coastal biodiversity, this included:

- ? Building capacity in developing regions where the awareness and scientific capacity to address this issue has yet to be strengthened;
- ? Engaging industry and other relevant sectors, including the naval and mining sectors, when developing guidelines in order to increase their ownership and participation in the implementation of the guidelines; and

? Encouraging collaboration and communication among relevant international bodies to enhance synergies in addressing this issue.

**Conservation of Migratory Species of Wild Animals (CMS):** CMS has recommended Parties to undertake research of the impact of underwater noise, and to limit or mitigate man-made noise to address Sustainable Development Goal (SDG) 14 target 14.1 to ?by 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution? which also applies to noise pollution.






**UNCLOS and environment:** The UN Convention on the Law of the Sea (UNCLOS), whilst not specifically mentioning noise pollution, does define the term ?pollution? as ?the introduction by man, directly or indirectly, of substances or energy into the marine environment..., which results or is likely to result in such deleterious effects as harm to living resources...? (Art. 1(1) (4)). Based on this, anthropogenic underwater noise can be considered as a form of pollution of the marine environment under UNCLOS.

**IMO Guidelines and policy making:** As stipulated under baseline scenario, the IMO has already developed non-mandatory *Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life* (MEPC.1/Circ.833 of 7 April 2014) with the objective of providing general advice on reduction of underwater noise to ship designers, shipbuilders and ship operators. IMO work thus far has largely concentrated on ship and ship technologies and aims to resolve the underwater noise issue at source. IMO Member States, in SDC 9, have submitted Revised Guidelines for deliberation and adoption by MEPC 80, in July 2023. The GloNoise Partnership projects? results and outcomes will be communicated with IMO Member States at large and may therewith contribute to the IMO?s policy making process.

***Relevance to Sustainable Development Goals (SDGs) and Kunming-Montreal Global Biodiversity Framework:***

The project contributes to global efforts to achieving the Sustainable Development Goals (SDGs), most notably SDG 14 (Life Below Water), as well as SDG 5 (Gender Equality), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals), as outlined below in *Table 1* of the *Project Document*.

*Project Document Table 1: Project contributions towards Sustainable Development Goals*

SDG	Project Contributions to the SDG Targets:
	Contribute to the prevention of marine pollution (target 14.1); increased scientific knowledge regarding the risks and impacts of underwater noise on marine biodiversity (target 14.a).
	Contribute to ensuring women’s full and effective participation and equal opportunities with men and boys, and to technical capacities on assessing and mitigating the impacts of underwater noise from shipping (target 5.5); advocate for policy and regulatory options that promote gender equality and empowerment of women (target 5.c).
	Promote sustainable shipping infrastructure to support protection of globally significant marine biodiversity and enhancement of human well-being (target 9.1).
	Increase awareness and strengthen institutional capacity on climate change adaptation and mitigation associated with mitigation of the impacts of underwater noise from shipping (target 13.3).
	Enhancing South-South and triangular regional and international cooperation on collaborative initiatives with new or existing partners to advance knowledge on underwater noise from shipping (target 17.6); promote public-private partnerships on mitigating the impacts of underwater noise from shipping (target 17.17).

The project will also contribute to achieving the targets outlined in the Kunming-Montreal Global biodiversity framework.<sup>[1]</sup> The project is aligned with the following 2030 Global Targets of the global biodiversity framework:

**Target 7.** Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution.

**Target 14.** Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, fiscal and financial flows with the goals and targets of this framework.

<sup>[1]</sup> CBD, 18 December 2022. Kunming-Montreal Global biodiversity framework, Draft decision submitted by the President. Convention on Biological Diversity, CBD/COP/15/L.25.



***Relevance to the UNDP Strategic Plan 2022-2025:***

The expected project results will also contribute towards achievement of the **UNDP Strategic Plan (2022-2025)**, namely Output Signature Solution #4 (Environment); contributing to UNDP SP Result 4.1: "Natural resources protected and managed to enhance sustainable productivity and livelihoods"; and Result 4.2: "Public and private investment mechanisms mobilized for biodiversity, water, oceans, and climate solutions". Under the Integrated results and resources framework (IRRF) of the UNDP Strategic Plan, the project will contribute towards Indicator IRRF 4.1.1 ("Number of people directly benefitting from initiatives to protect nature and promote sustainable use of resources"), and Indicator 4.2.1 ("Number of people directly benefitting from mechanisms for biodiversity, water, oceans, and climate solutions funded by public and/or private sector resources").

***Relevance to IMO guidelines and policies:***

The project is aligned with **IMO's Revised Strategic Plan** for the Organization for the Six-Year Period 2018-2023 ([A32/Res.1149](#)), 28 January 2022, specifically following *Strategic Direction 1: Improve Implementation*, which reads under para 16: "IMO will continue to develop and execute projects to provide targeted capacity-building and technical cooperation that fosters, promotes and supports implementation efforts, especially those of developing countries, and will continue to pay particular attention to the needs of small island developing States and least developed countries." The GloNoise Partnership project seeks to provide developing countries with targeted capacity-building in support of implementation efforts on IMO's Voluntary Underwater Noise Guidelines. In so doing, the project will take into full account the policy outcomes resulting from Output 1.16 of IMO's Revised Strategic Plan on "Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps," which takes place under the purview of the Sub-committee for Ship Design and Construction (SDC). SDC 9, convened from 23 to 27 January 2023, performed the review of the Guidelines, and submitted *Draft Revised Guidelines for the Reduction of Underwater Radiated Noise from Shipping to Address adverse impacts on marine life* (SDC 9/WP.3 Annex 1), for deliberation and adoption by MEPC 80, which will convene from 3 to 7 July 2023 (IMO 2023). Technical experts from the IMO Secretariat's Marine Environment Division, as well as IMO's Maritime Safety Division, who facilitate Member States, Associate Members, and IGOs and NGOs in consultative status at IMO on the review of the 2014 Guidelines, have contributed to the project's design.

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[1] CBD, 5 July 2021. First Draft of the Post-2020 Global Biodiversity Framework. Convention on Biological Diversity, CBD/WG2020/3/3.

## 8. Knowledge Management

**Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.**

The GloNoise Partnership project includes an integrated knowledge management dimension through which existing knowledge on anthropogenic noise will be compiled, managed and disseminated. Increased awareness and understanding of shipping noise impacts and the IMO guidelines will assist with policy dialogues and build capacity to support future management of the issue, particularly within developing countries. The improved information base available to countries will support the development of enhanced national understanding to address the shipping noise management practices. A number of relevant specific outputs, such as national reports, the GloNoise website, regular project publications, an online knowledge forum, an international expert workshop, stakeholder workshops in the LPCs, etc. will be used as vehicles for knowledge sharing and management. The project communications and knowledge management strategy and action plan will include specific methods and messaging for raising awareness and disseminating information regarding COVID-19 risks. Furthermore, as mentioned above, the GloNoise project will establish links with the other GEF global initiatives through IW:LEARN in order to facilitate the management and exchange of knowledge and information on the issue. 1% of the project budget is dedicated to IW:LEARN activities.

The GloNoise Partnership knowledge management activities will adopt an approach to knowledge management that builds upon the experience, lessons learned, and knowledge management platforms developed during the GloBallast, GloMEEP and GloFouling projects. In particular the project will develop and employ a communications and knowledge management strategy and action plan that will incorporate the dissemination of information on shipping noise impacts, the IMO guidelines and the noise assessment toolkit including the translation of materials into appropriate regional languages. The regional elements of the GloNoise Partnership project will focus on targeted communication establishing a dialogue with regional bodies that are already dealing with underwater noise from shipping, and which have in some cases, convened expert groups and deliver training and delivering capacity building workshops.

The project will also incorporate the development of a GloNoise project website, linked to the IW:LEARN, to ensure a broad dissemination of knowledge gained throughout the project supported by a targeted media

campaign. Also, wide dissemination of project progress and results will be done via the IMO Secretariat. For example, as part of relevant IMO Committee meetings, including MEPC, widespread access is achieved to all players in maritime industry including maritime Administration representatives, NGOs, industry associations, non-for-profit organizations and charities advocating environmental sustainability, representatives of various member states ministries and so on. This access that is facilitated via various IMO meetings and committees will be fully utilised for dissemination purposes.

An approximate timeline for implementing the knowledge management and communications activities is shown below.

Activity	Cost (USD)	Estimated Timing
Develop and implement the GloNoise communications and knowledge management strategy and action plan	17,500	2023 Q3-Q4
Create and maintain project website	7,500	2023 Q3 to 2025 Q2
Development of knowledge products, including experience notes, results notes	12,500	2024 Q1 to 2025 Q2
Dissemination of project progress and results, e.g., as part of IMO Committee meetings	7,500	2023 Q3 to 2025 Q2
Participating in IW:LEARN portfolio learning events	10,000	2024 Q1 to 2025 Q2
Participating in international workshops, e.g., biannual conference on the effects of noise on aquatic life	10,000	2025 Q1-Q2
Organize an online knowledge forum	5,000	2024 Q4
Develop a project sustainability plan	10,000	2024 Q3-2024 Q1
<b>Total:</b>	<b>80,000</b>	

Output 4.2 is dedicated to knowledge management and communications. A budget of USD 80,000 is allocated for this output.

## **9. Monitoring and Evaluation**

### **Describe the budgeted M and E plan**

The project's monitoring and evaluation plan is provided in *Section VII Monitoring and Evaluation Plan* of the Project Document and summarized below.

The project inception workshop, to be held within three months of signing of the project document, is a critical milestone on the implementation timeline, providing an opportunity to validate the project document, including the screening of social and environment risks; confirming governance implementation arrangements; assessing changes in relevant circumstances and making adjustments to the project results framework accordingly; verifying stakeholder roles and responsibilities; updating the project risks and agreeing to mitigation measures and responsibilities; and agreeing to the multi-year work plan. An inception workshop report will be prepared and disseminated among the project steering committee members.

The project team will regularly monitor and evaluate achievement of the performance metrics included in the project results framework, and report progress in the annual Project Implementation Review (PIR) reports and other progress reports, enabling timely implementation of adaptive management measures in response to monitoring and evaluation findings.

The project safeguard assessments and management plans will also be regularly reviewed and updated. These include the Social and Environmental Screening Procedure (SESP), Gender Action Plan, and Stakeholder Engagement Plan.

An independent terminal evaluation will be carried out within three and six months from project closure.

The M&E budget is presented below (*Table 3* of the Project Document):

<b>GEF M&amp;E requirements to be undertaken by Project Management Unit (PMU)</b>	<b>Indicative costs (USD)</b>	<b>Time frame</b>	<b>Responsible Party</b>
Inception Workshop and Report	20,060	Inception Workshop within 2 months of the First Disbursement	IMO (PMU)
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	16,670	Annually and at mid-point and closure.	IMO (PMU)
Preparation of the annual GEF Project Implementation Report (PIR)	10,000	Annually typically between June-August	IMO (PMU)
Monitoring of SESP, Stakeholder Engagement Plan, Gender Action Plan, Climate and Disaster Risk Screening, COVID-19 Action Framework	11,670	On-going	IMO (PMU)
Supervision missions	N/A (covered by agency fee)	Annually	UNDP/IMO (PMU)
Independent Terminal Evaluation (TE): costs associated with conducting the independent evaluation to be commissioned by the Internal Ethics and Oversight Office (IOEO) of IMO (not the PMU)	21,600	By 31 March 2025	IMO (IOEO)
<b>TOTAL indicative COST</b>	<b>\$80,000</b>	Equivalent to TBWP Component 4, Output 4.1	

## 10. Benefits

**Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?**

With the emphasis on building capacities in developing countries to assess and mitigate the impacts of underwater noise from shipping, the main socioeconomic benefit is the resulting **increased human capital**. The increase in human capital regarding marine ecosystem sensitivities to noise will deepen the appreciation and understanding of natural resources under management by developing countries. The project will also better enable stakeholders from developing countries to be more meaningfully involved in regional and global dialogues and to make science-based contributions to decision-making processes on regulatory, technological and other conservation management measures. This involvement also extends to

women professionals, as resources under Component 2 are allocated or strengthening capacities of women, advancing **gender equality and women's empowerment** objectives.

The strengthened capacities, increased awareness and more effective stakeholder collaboration catalysed through the Global Strategic Partnership are expected to contribute to increased attention and mitigation of the impacts of underwater noise from shipping. The resulting socioeconomic benefits would extend both to the fisheries and tourism sectors. Research has indicated that anthropogenic underwater noise has the potential to impact fishery resources directly via displacement of fish from important habitats. But it is also possible that noise has ecosystem impacts affecting lower trophic levels such as invertebrates on which fish prey (see Popper *et al.* 2020). Reducing pressure from anthropogenic noise including those from ships could alleviate ecosystem impacts and lead to an increase or recovery of fishery resources which would ultimately **benefit the fisheries sector**. This could be critically important to artisanal fishers in developing countries who have limited ability to adapt to changing fish stock locations. Beyond the fishing industry itself, reduction of low-cost protein access could negatively impact nutrition needs and caloric intake for those living on subsistence wages.

In many parts of the world, **eco-tourism**, including whale-watching, is on the rise (Cisneros-Montemayor *et al.* 2010). Reducing pressures from shipping and other noise emitters would likely lead to beneficial impacts on whale populations such as increased habitat use of previously heavily noise polluted areas and population growth, which in turn could directly benefit eco-tourism in the form of whale-watching. Reduction of underwater noise could also benefit the recreational diving sector as studies have shown that human divers can be affected by underwater noise too. Effects can range from aversion to injury (Anthony *et al.* 2009). There is a growing body of knowledge on the impacts of underwater noise from shipping on marine fauna, including sea turtles. For example, it is known that sea turtles are sensitive to noise below the 1000 Hz similar to the range of vessel motors.<sup>[1]</sup> The type of ecotourism oriented on sighting of species, like sea turtles, provides a sustainable alternative to other, more destructive activities, and the positive externality includes promoting a country's environmental, economic and social development in areas where these species exist.

With respect to **climate change adaptation benefits**, the project contributes to building the knowledge base on best practices for mitigating the impacts of underwater noise from shipping. Commercial shipping is expected to adjust to changes brought about by the effects of climate change. For instance, further loss of sea ice in the Arctic opens opportunities for year-round shipping and enhanced access to oil and gas and other resources. Facilitating improved multi-stakeholder dialogue and collaboration, including through the establishment of the Global Strategic Partnership, will help steer formulation of science-based regulatory frameworks to reduce impacts on globally significant biodiversity.

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[1] NOAA Fisheries, *Sea Turtles in a Sea of Sound*, see <https://www.fisheries.noaa.gov/feature-story/sea-turtles-sea-sound>.

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

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

### Overall Project/Program Risk Classification\*

PIF	CEO Endorsement/Approval	MTR	TE
Low	Medium/Moderate		

#### Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

#### Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
PIMS 6265_GloNoise_Annex 04_SESP_02Feb2023 - final	CEO Endorsement ESS	
Pre-SESP for IMO-UNDP-GEF GloNoise 18 June 2021-FINAL	Project PIF ESS	

**ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).**

<b>This project will contribute to the following Sustainable Development Goal (s): SDG 14, SDG 5, SDG 13, and SDG 17</b>			
<p>Aligned with <b>UNDP Strategic Plan (2022-2025)</b> Output Signature Solution #4 (Environment); contributing to UNDP SP Result 4.1: Natural resources protected and managed to enhance sustainable productivity and livelihoods; and Result 4.2: Public and private investment mechanisms mobilized for biodiversity, water, oceans, and climate solutions.</p> <p>The project is also aligned with the <b>IMO Revised Strategic Plan</b> for the Organization for the Six-Year Period 2018-2023 (A32/Res.1149), 28 January 2022, specifically Output 1.6 on "Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps."</p>			
	<b>Objective and Outcome Indicators</b>	<b>Baseline</b>	<b>End of Project Target</b>
<b>Project Objective:</b> To establish a truly global partnership to engage and assist developing countries to raise awareness, build capacity, define baselines and promote international policy dialogue on the mitigation of underwater noise from shipping	<b>Indicator 7.4: Level of engagement in IW:LEARN through participation and delivery of key products</b>	1 (No participation)	3 (website in line with IW:LEARN guidance active, plus strong participation in training/twinning events and production of at least one experience note and one results note)
	<b>Core Indicator 11 (IRRF Indicators 4.1.1, 4.2.1): Number of direct project beneficiaries disaggregated by gender as a co-benefit of GEF investment (individual people)</b>	N/A	2,000 of whom 600 are women
<b>Project Component 1</b>	<b>Global toolkit development and policy analyses</b>		



<p><b>Outcome 1:</b> Global capacities on assessing and mitigating the impacts of underwater noise from shipping enhanced through roll-out of advanced assessment methodologies and analysis of policy directions</p>	<p><b>Indicator 3:</b> (a) Global Noise Assessment Toolkit developed and functional on a publicly accessible online platform; (b) number of visits to the online Toolkit by the end of the project; (c) number of people participating in online Toolkit training webinars (gender disaggregated)</p>	<p>Disparate assessment methodologies</p>	<p>(a) Global Noise Assessment Toolkit developed and functional on a publicly accessible online platform; (b) 100 visits, (c) 400 people (of whom 120 are women) participating in online Toolkit training webinars</p>
	<p><b>Indicator 4:</b> Analysed policy options on strengthening management of the impacts of underwater noise from shipping shared with the IMO</p>	<p>Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833 of 7 April 2014)</p>	<p>Policy options presented at an IMO Committee meeting</p>
<p><b>Outputs to achieve Outcome 1:</b></p>	<p><b>Output 1.1.</b> Shipping underwater Noise Assessment Toolkit for baseline analysis and environmental risk and impact assessment, inclusive of data collection and analysis methods, developed and rolled out</p> <p><b>Output 1.2.</b> Global policy options for mitigation of underwater noise from shipping analysed</p>		
<p><b>Project Component 2</b></p>	<p><b>Capacity Building and Awareness Raising in Participating Developing Countries</b></p>		
<p><b>Outcome 2:</b> Enabling environment of lead pilot countries strengthened through capacity building, awareness raising and gender inclusion</p>	<p><b>Indicator 5:</b> (a) Number of underwater noise marine environmental risk assessments by LPCs using the approved Global Toolkit; (b) number of people in the LPCs participating in capacity building (gender disaggregated)</p>	<p>Limited participation and capacity among developing countries regarding the risks of underwater noise from shipping; small number of women professionals in developing countries focusing on underwater noise.</p>	<p>(a) Six risk assessments by LPCs completed and results circulated among responsible governmental entities; (b) 150 people (of whom 45 are women) in the LPCs participating in capacity building</p>

	<b>Indicator 6:</b> Number of internal presentations on risks, impacts and/or management of underwater noise from shipping made by LPC experts to relevant stakeholders (gender disaggregated)	N/A	12 internal presentations made by LPC experts (with at least one women per country presenting or co-presenting)
<b>Outputs to achieve Outcome 2:</b>	<p><b>Output 2.1.</b> Baseline studies and environmental risk and impact assessment of underwater noise from shipping using the Noise Assessment Toolkit carried out by lead pilot countries</p> <p><b>Output 2.2.</b> Development of women professionals on assessment and mitigation of underwater noise from shipping facilitated through learning exchanges</p>		
<b>Project Component 3</b>	<b>Fostering Partnerships on Underwater Noise Mitigation from Shipping</b>		
<b>Outcome 3:</b> Partnerships strengthened for more effective collaboration on mitigating underwater noise from shipping	<b>Indicator 7:</b> Number of new references to underwater noise from shipping in marine ecosystem diagnostic analyses and/or or regional strategic action plans	Limited records of underwater noise from shipping in marine ecosystem diagnostic analyses or strategic action plans among GEF-financed IW projects	Two new references to underwater noise from shipping in marine ecosystem diagnostic analyses and/or or regional strategic action plans
	<b>Indicator 8:</b> Number of meetings, conferences, and dialogues on advocating for increased stakeholder engagement in assessing and mitigating underwater noise from shipping	N/A	Ten meetings, conferences, and or dialogues on advocating for increased stakeholder engagement in assessing and mitigating underwater noise from shipping
<b>Outputs to achieve Outcome 3:</b>	<p><b>Output 3.1.</b> Dialogues on mitigation of underwater noise from shipping advanced through linkages with regulatory organizations, industry, donor funded regional projects and other developing countries</p> <p><b>Output 3.2.</b> A Global Strategic Partnership (GSP) established as a public-private platform for steering the policy agenda and strengthening of the regulatory framework for underwater noise reduction from shipping</p>		
<b>Project Component 4</b>	<b>Monitoring, Learning, Adaptive Feedback and Evaluation</b>		

<p><b>Outcome 4:</b> Knowledge sharing and learning mechanisms established for facilitating adaptive management, upscaling and replication</p>	<p><b>Indicator 9:</b> Number of online global knowledge forums on assessing and mitigating underwater noise from shipping convened</p>	<p>Limited involvement and knowledge-sharing among developing countries on managing shipping related underwater noise</p>	<p>One online global knowledge forum convened</p>
	<p><b>Indicator 10:</b> Stakeholder recommendations integrated into sustainability plan based on end-of-project feedback survey</p>	<p>N/A</p>	<p>Stakeholder recommendations integrated into a project sustainability plan based on end-of-project feedback</p>
	<p><b>Indicator 11:</b> (a) Number of GEF IW Conferences participated in; (b) number of Experience Notes disseminated through IW:LEARN channels</p>	<p>N/A</p>	<p>(a) One GEF IW Conference participated in; (b) two Experience Notes produced and disseminated through IW:LEARN channels</p>
<p><b>Outputs to achieve Outcome 4:</b></p>	<p><b>Output 4.1.</b> Project monitoring, evaluation and reporting systems established and implemented</p> <p><b>Output 4.2.</b> Sustainability enhanced through knowledge sharing and communications, including contributions to portfolio learning via IW:LEARN</p>		

**ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).**

Comment	Response	Project Document Reference
<p>GEF Secretariat comments to the PIF:</p>		

Comment	Response	Project Document Reference
<p><i>Part III. Country Endorsements</i></p> <p><b>Has the project/program been endorsed by the country's GEF Operational Focal Point and has the name and position been checked against the GEF data base?</b></p> <p><i>14 June 2022:</i></p> <p>In Table B there are outcomes (outcome 2) and outputs (outputs 1.2; 2.2; 2.4) that will take place in countries. While it is understood from comments in the review sheet that participant countries have not been identified at PIF stage, LoEs of participant countries will be required at CEO Approval stage.</p>	<p>UNDP: 01 June 2022:</p> <p>The Letters of Endorsement (LoEs) of Lead Pilot Countries to this project will be secured during the PPG phase as per the same process as with other GEF-UNDP/IMO Glo-X projects. The logic behind this approach was that by being a global project, selection of geographically distributed, yet committed pilot countries will serve as the best model and this would require extensive consultation with the pilot countries on not only their selection but also for specific agreement with each on their project-related action plan.</p> <p>As such, at PPG phase, wide consultations for selection of the LPCs will be carried out and subsequent to selection; concrete action / work plan for each LPC is agreed. Letter of Endorsement and Commitment will then be obtained from the LPCs and supplied with the full-size Project Document. This process has been followed with all other past and currently active GEF-funded Glo-X projects. There is ample evidence for wide support from IMO member States for global projects and no issue is foreseen to secure the participation of relevant selected countries. The process described above simply leads to the choice of the most appropriate LPCs for the project via extensive consultation on well-defined action plans. The process also follows the IMO open and transparent system and all-inclusive information provision to all member states for selection of LPCs on a consensus basis to ensure future sustainability of such global activities.</p> <p>UNDP: 02 February 2023:</p> <p>Endorsement letters from the six LPCs were received during the</p>	<p>ProDoc Annex 16: Endorsement letters from Lead Pilot Countries</p>

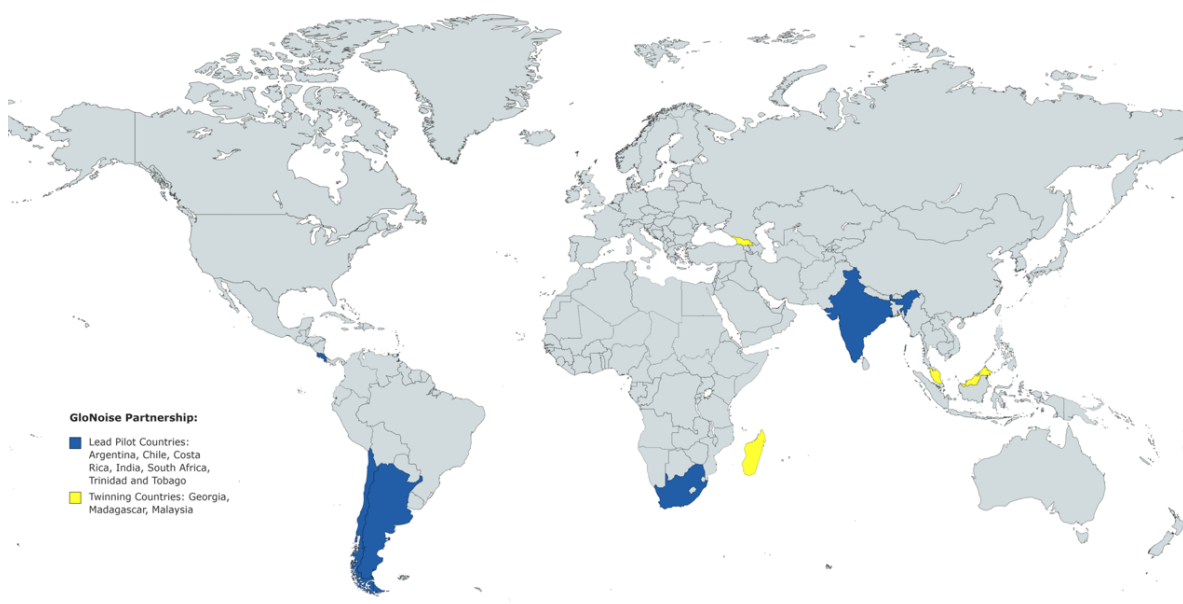
Comment	Response	Project Document Reference
	PPG phase and are annexed to the Project Document.	

**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).  
(Provide detailed funding amount of the PPG activities financing status  
in the table below:**

<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Consultant hired to prepare ProDoc+Annexes	24,300	13,500	10,800
Consultant hired to provide scientific advice on underwater noise	5,400	2,700	2,700
PPG funds yet to be committed	20,300		
<b>Total</b>	<b>50,000</b>	<b><u>16,200</u></b>	<b>13,500</b>

**ANNEX D: Project Map(s) and Coordinates**

**Please attach the geographical location of the project area, if possible.**



GloNoise Partnership project: Lead Pilot Countries and Twinning Countries.

## ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description	Component (US\$eq.)						
		Component 1	Component 2	Component 3	Component 4* (Output 4.2 only)	Sub-Total	M&E (Output 4.1)	PMC
Equipment	Computer and other IT equipment for the Project Management Unit. Total: USD 3,700					-		3,700
Contractual services-Individual	Project Assistant	8,450	15,210	27,040	4,225	54,925	4,225	109,850
Contractual services-Individual	Project Manager/Chief Technical Advisor	73,620	117,810	29,440	14,720	235,590	14,720	44,170
Contractual services-Company	Contracted company, organization or institute for developing and implementing the GloNoise communications and knowledge management strategy and action plan, including creation and updating of a project website/webpage, designing and dissemination of knowledge products and communication materials, and arranging targeted awareness raising. Total: USD 10,800				10,800	10,800		
Contractual services-Company	Contracted company, organization, or institute to develop a Noise Assessment Toolkit (includes updating the Toolkit according to feedback received during roll-out sessions and providing technical support for one year); organize a stakeholder workshop, obtaining feedback on the Toolkit; roll out the Toolkit through a series of webinars and self-paced training modules, advocating for the equitable participation of women. Total: USD 135,000	135,000				135,000		
Contractual services-Company	Contracted organizations in twinning countries for participating on project activities. Total: USD 27,000			27,000		27,000		
Contractual services-Company	Institutes or other contracted partners in each LPC carry out baseline studies and environmental risk and impact assessments of underwater noise from shipping (and potentially other sound sources of interest), evaluating different species if possible, e.g., marine mammals, fishes, invertebrates, turtles, etc. (USD 54,000 allocated for each of the 6 LPCs = USD 324,000). Total: USD 324,000		324,000			324,000		
International Consultants	International consultant for leading and conducting the terminal evaluation (30 days at USD 540 per day = USD 16,200). Total: USD 16,200					-	16,200	

International Consultants	International consultant for leading and conducting the terminal evaluation (30 days at USD 540 per day = USD 16,200). Total: USD 16,200					-	16,200	
International Consultants	International consultant(s) supporting development of linkages with national, regional and multi-national regulatory organizations, fostering improved flow of information on policies, regulations and joint efforts to reduce anthropogenic underwater sound and mitigate effects to aquatic life; strengthening engagement with the private sector and other key stakeholders, participating in regional and global dialogues on emerging issues associated with the impacts and management of underwater noise from shipping; engaging with GEF and other donor funded marine ecosystem projects, advocating to incorporate underwater noise from shipping considerations into diagnostic analyses and development of strategic action plans; and promoting participation of other developing countries through twinning arrangements with the Lead Pilot Countries and other collaborative arrangements (70 days at USD 540 per day = USD 37,800); Preparing GSP strategic action plan and supporting the establishment of the partnership (30 days at USD 540 per day = USD 16,200). Total: USD 54,000			54,000		54,000		
International Consultants	International consultant for developing and supporting the implementation of a sustainability plan for the project (25 days at USD 540 per day = USD 13,500). Total: USD 13,500				13,500	13,500		
International Consultants	International consultant to conduct an analysis of existing assessment methodologies available, evaluate strengths and weaknesses, and prepare conceptual model for a toolkit for baseline analysis and environmental risk and impact assessment, ensuring consistency with UNDP social and environmental standards (100 days at USD 540 per day = USD 54,000). Output 1.2: International Policy Consultant(s) to conduct an analysis of current global, regional and national policies, guidelines and standards associated with mitigation of underwater noise from shipping and prepare recommendations for global policy options, ensuring consistency with UNDP social and environmental standards; present the results of the analysis and a summary of the recommendations for global policy options at IMO Committee meetings (60 days at USD 540 per day = USD 32,400). Total: USD	86,400				86,400		
International Consultants	International Consultant to deliver capacity building workshops in the LPCs on the use of the Noise Assessment Toolkit, advocating for the equitable participation of women (120 days at USD 540 per day = USD 64,800). Total: USD 64,800		64,800			64,800		

International Consultants	International Consultant to deliver capacity building workshops in the LPCs on the use of the Noise Assessment Toolkit, advocating for the equitable participation of women (120 days at USD 540 per day = USD 64,800). Total: USD 64,800		64,800			64,800		
Local Consultants	Local consultants supporting the capacity building workshops, including provision of translation and interpretation support (245 days at USD 324 per day). Total: USD 79,450		77,760			77,760		
Local Consultants	Local consultants supporting the policy analyses, including provision of translation and interpretation support (116 days at USD 324 per day). Total: USD 37,610	29,160				29,160		
Local Consultants	National consultants, facilitating engagement in other developing countries through twinning arrangements with the Lead Pilot Countries and other collaborative arrangements, including provision of translation and interpretation support (39 days at USD 324 per day = USD 22,680). Total: USD 12,540			22,680		22,680		
Training, Workshops, Meetings	Capacity building workshops in the LPCs (USD 11,340 allocated for each of the 6 LPCs = USD 68,040); national level seminars on the results of the baseline studies and impact assessments (USD 8,100 allocated for each of the 6 LPCs = USD 48,600). Learning exchanges for women professionals (2 in each of the 6 LPCs at USD 2,160 per person = USD 25,920); participation of women professionals in international conferences on reducing anthropogenic underwater sound and mitigating effects to aquatic life (2 in each of the 6 LPCs at USD 2,160 = USD 25,920). Total: USD 168,480		168,480			168,480		
Training, Workshops, Meetings	Organizing workshops and/or conferences as part of the project's communication and knowledge management action plan (USD 5,400). Total: USD 5,400				5,400	5,400		
Training, Workshops, Meetings	Project inception workshop and executive committee meetings (USD 10,295). Total: USD 10,295					-	10,295	
Training, Workshops, Meetings	Stakeholder workshop(s) on the Noise Assessment Toolkit (USD 13,500); series of webinars on the Noise Assessment Toolkit (USD 5,400). Output 1.2: Country level stakeholder workshops of the draft policy recommendations (USD 14,420). Total: USD 33,320	33,320				33,320		
Training, Workshops, Meetings	Workshop and conference costs (USD 10,800). Output 3.2: workshop costs associated with the GSP (USD 5,400). Total: USD 16,200			16,200		16,200		

Travel	Travel and DSA expenses associated with LPC capacity building workshops (USD 9,720 per LPC (6) = USD 58,320); travel expenses for the national level seminars on the results of the baseline studies and assessments (USD 4,860 per LPC (6) = USD 29,160). Output 2.2: Travel and DSA expenses for the learning exchanges for women professionals (2 women in each of the 6 LPCs at USD 4,320 per person = USD 51,840); travel and DSA expenses for participation of women professionals in international conferences (2 women in each of the 6 LPCs at USD 2,160 per person = USD 25,920). Total: USD 165,240		165,240			165,240		
Travel	Travel and DSA expenses associated with the stakeholder workshop on the Noise Assessment Toolkit (USD 27,000). Output 1.2: Travel and DSA expenses associated with country level policy workshops (USD 10,800); travel expenses, supporting stakeholder participation in IMO meetings (USD 10,800). Total: USD 48,600	48,600				48,600		
Travel	Travel and DSA expenses for implementation of communications and knowledge management action plan (USD 2,160); for participation in international workshop(s) and/or conference(s), e.g., the biannual conference on The Effects of Noise on Aquatic Life (USD 5,435); and for participation in IW:LEARN portfolio learning events (USD 3,240).				10,835	10,835		
Travel	Travel and DSA expenses for participating in national, regional and global workshops and dialogues (USD 19,440). Output 3.2: Travel and DSA expenses for GSP seminars, dialogues (USD 10,800). Total: USD 30,240			30,240		30,240		
Travel	Travel and DSA expenses for the inception workshop (USD 10,800); for M&E and supervision missions (USD 17,280); for the terminal evaluation (USD 6,480). Total: USD 34,560					-	34,560	
Travel	Travel expenses associated with the operations of the Project Management Unit. Total: USD 3,240					-		3,240
Office Supplies	Cost of office supplies for the operation of the Project Management Unit. Total: USD 1,620					-		1,620
Other Operating Costs	Connectivity charges, email subscriptions, courier charges for the Project Management Unit. Total: USD 1,620					-		1,620
Other Operating Costs	Connectivity charges, website expenses and other expenses associated with the communications and knowledge management platforms. Total: USD 4,320				4,320	4,320		



Other Operating Costs	Platform subscription fees for the Toolkit. Total: USD 8,640	8,640				8,640		
Other Operating Costs	Audio-visual and print production costs associated with the national level capacity building activities. Total: USD 15,010		16,700			16,700		
Other Operating Costs	Audio-visual and print production costs associated with the Noise Assessment Toolkit. Total: USD 18,360	26,810				26,810		
Other Operating Costs	Audio-visual and print production costs, supporting partnership building activities. Total: USD 18,540			8,400		8,400		
Other Operating Costs	Financial audits and/or spot-checks of the project. Total: USD 10,800					-		10,800
Other Operating Costs	Production and dissemination of knowledge products, contributing towards portfolio learning via IW:LEARN and supporting the implementation of the project communications and knowledge management action plan. Total: USD 16,200				16,200	16,200		
		450,000	950,000	215,000	80,000	1,695,000	80,000	175,000
*The Component 4 costs exclude M&E (Output 4.1).								

#### **ANNEX F: (For NGI only) Termsheet**

**Instructions.** Please submit a finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

#### **ANNEX G: (For NGI only) Reflows**

**Instructions.** Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

#### **ANNEX H: (For NGI only) Agency Capacity to generate reflows**

**Instructions.** The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agency's capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).