GEF-8 REQUEST FOR CEO ENDORSEMENT/APPROVAL

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General Project Information

Project Title	
The Digital Seafood Revolution: Electronic catch documentation and traceability systems (eCDT) for sustainable and legal fisheries in Chile, Peru, and Ecuador	
Region Latin America and the Caribbean	GEF Project ID 11674
Country(ies) Regional Chile Ecuador Peru	Type of Project FSP
GEF Agency(ies): UNEP	GEF Agency Project ID
Project Executing Entity(s) World Wildlife Fund, Inc.	Project Executing Type Others
GEF Focal Area (s) International Waters	Submission Date 1/24/2026
Type of Trust Fund GET	Project Duration (Months) 48
GEF Project Grant: (a) 8,000,000.00	GEF Project Non-Grant: (b) 0.00
Agency Fee(s) Grant: (c) 760,000.00	Agency Fee(s) Non-Grant (d) 0.00
Total GEF Financing: (a+b+c+d) 8,760,000.00	Total Co-financing 116,573,341.00
PPG Amount: (e) 200,000.00	PPG Agency Fee(s): (f) 19,000.00
Total GEF Resources: (a+b+c+d+e+f) 8,979,000.00	
Project Tags CBIT: No NGI: No SGP: No Innovation: Yes Competitive Window: No	
Project Sector (CCM Only)	

Taxonomy

International Waters, Focal Areas, Threatened Species, Species, Biodiversity, Fisheries, Mainstreaming, Ceritification - International Standards, Certification -National Standards, Community Based Natural Resource Mngt, Protected Areas and Landscapes, Large Marine Ecosystems, Transform policy and regulatory environments, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approache, Civil Society, Stakeholders, Community Based Organization, Non-Governmental Organization, Beneficiaries, Communications, Education, Strategic Communications, Awareness Raising, Behavior change, Private Sector, Financial intermediaries and market facilitators, Individuals/Entrepreneurs, Large corporations, Capital providers, SMEs, Local Communities, Type of Engagement, Information Dissemination, Partnership, Consultation, Participation, Gender results areas, Gender Equality, Participation and leadership, Access to benefits and services, Capacity Development, Knowledge Generation and Exchange, Access and control over natural resources, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Innovation, Capacity, Knowledge and Research, Training, Knowledge Generation, Seminar, Workshop, Field Visit, Knowledge Exchange, Peer-to-Peer, Twinning, North-South, Exhibit, Learning, Indicators to measure change, Theory of change, Adaptive management

Rio Markers

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

Project Summary

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

Illegal, unreported and unregulated (IUU) fishing is one of the main threats to the sustainability of fisheries in the Humboldt Current. Ecuador, Peru, and Chile, which together contributed around 10% of global fish production in 2022 (FAO, 2025), face the challenge of ensuring the legality and sustainability of their resources to protect biodiversity and maintain access to international markets. The expansion of illegal activities reduces fish populations, weakens governance, and compromises the food security of millions of people.

The project aims to strengthen the effective use of electronic catch documentation and traceability systems (eCDT) across the three countries by coordinating and improving national traceability schemes, along with the adoption of international standards throughout the fisheries value chain. These systems allow tracking fish from the sea to the consumer, creating a reliable digital record that prevents the entry of illegal catches into value chains. Thus, traceability not only increases the likelihood of detecting irregular practices but also builds confidence among markets and consumers that the product comes from legal and sustainable sources.

The project will deliver this transformation through a three level strategy: (i) national, by enhancing interoperability among key institutions and the integrating artisanal fisheries into traceability systems; (ii) regional, by creating mechanisms for joint exchange and verification; and (iii) practical implementation, through pilots and training programs. Joint learning spaces and exchanges of experiences among countries will be promoted under a South-South cooperation approach to accelerate the adoption of solutions adapted to local realities.

UNEP ’s contribution in the Traceability project lies in its ability to connect global policy, science, and market actors to advance transparency in seafood supply chains. Through the UNEP Finance Initiative (UNEP FI) and its collaborative investor engagement with partners such as the FAIRR Initiative, WWF US, Planet

Tracker, and the World Benchmarking Alliance, UNEP helps mobilize financial institutions and seafood companies to promote full-chain, interoperable traceability systems. In parallel, technical work by UNEP-WCMC provides science-based inputs on issues such as destructive fishing that can inform monitoring and compliance frameworks. Combined with its experience facilitating regional policy dialogue and cooperation, UNEP is well positioned to support coordinated action toward more transparent and sustainable fisheries.

In the region, WWF has also played a key role in promoting the design and use of eCDT systems, collaborating with authorities, artisanal fishing communities, and industries to implement electronic fishing logs, install on-board cameras, digitize administrative procedures, use mobile applications to record their activities, and more.

The project will contribute to strengthen marine biodiversity outcomes and strengthening ecosystem resilience to climate change (CI 5.1), it will contribute to improved management of shared marine ecosystems (CI 7), support fisheries moving toward more sustainable exploitation levels (CI 8). In addition, it will also generate social and economic benefits by improving coastal livelihoods, increasing trade competitiveness, and promoting the participation of women and youth in the fisheries value chain and directly benefiting 10,725 people (6,971 men and 3,754 women) (CI 11).

Project Description Overview

Project Objective

To strengthen national and regional electronic catch documentation and traceability systems (eCDT) in Ecuador, Peru, and Chile through the integration and improvement of governmental traceability frameworks, along with the adoption of international standards throughout the fisheries value chain.

Project Components

Component 1: Strengthening and coordination of national eCDT systems

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
2,733,401.00	50,600,683.00

Outcome:

Outcome 1.1: Strengthened, coordinated, and interoperable national eCDT systems throughout the fisheries supply chain according to each country’s needs and international market requirements

Output:

Output 1.1.1: A comprehensive assessment of existing MCS and eCDT systems completed in each country identifying gaps and opportunities

Output 1.1.2: A National Action Plan developed and implemented to support the strengthening, coordination, and interoperability of eCDT systems in each country.

Output 1.1.3: Coordination and interoperability mechanisms implemented within national eCDT systems.

Output 1.1.4: Three Sustainable financial mechanisms identified to support the long-term strengthening of MCS and eCDT systems.

Output 1.1.5: National regulations updated and aligned with global sustainability practices and international market requirements.

Component 2: Strengthening regional cooperation to improve eCDT systems and support joint actions against IUU fishing

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
1,457,733.00	18,552,833.00

Outcome:

Outcome 2.1: Regional cooperation mechanisms strengthened to support the coordination of national eCDT systems

Output:

Output 2.1.1: A regional cooperation mechanism is strengthened, updated, and operational to support joint actions against IUU fishing

Output 2.1.2: Regional cooperation mechanisms strengthened to support the coordination of national eCDT systems

Output 2.1.3: Learning exchanges conducted to support the strengthening and coordination of MCS and eCDT systems in the fight against IUU fishing

Component 3: Strengthening the capacities of actors throughout the entire fisheries value chain

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
3,041,527.00	33,481,570.00

Outcome:

Outcome 3.1: Capacities of fisheries value chain actors strengthened for the use of eCDT systems.

Output:

Output 3.1.1: A participatory Stakeholder engagement and capacity-building strategy developed with incentives and enabling conditions to promote the effective use of eCDT systems and the adoption of international standards.

Output 3.1.2: Gender-responsive eCDT training modules (basic, advanced, train-the-trainer) developed and implemented to promote effective use of eCDT systems.

Output 3.1.3: Proposals to institutionalize eCDT training modules developed for the three countries.

Output 3.1.4: Traceability pilots implemented in prioritized fisheries in each country to demonstrate the effectiveness of eCDT systems.

Output 3.1.5: Project results, including gender-responsive knowledge products, disseminated through IW: LEARN to support global learning and replication.

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
386,539.00	8,820,000.00

Outcome:

Outcome 4.1: Effective and timely project monitoring and evaluation

Output:

Output 4.1.1: Documented monitoring and reporting of project performance

Output 4.1.2: Independent evaluations and information analysis

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
Component 1: Strengthening and coordination of national eCDT systems	2,733,401.00	50,600,683.00
Component 2: Strengthening regional cooperation to improve eCDT systems and support joint actions against IUU fishing	1,457,733.00	18,552,833.00
Component 3: Strengthening the capacities of actors throughout the entire fisheries value chain	3,041,527.00	33,481,570.00
M&E	386,539.00	8,820,000.00
Subtotal	**7,619,200.00**	**111,455,086.00**

Project Management Cost	380,800.00	5,118,255.00
Total Project Cost ($)	**8,000,000.00**	**116,573,341.00**

Please provide Justification

N/A

PROJECT OUTLINE

A. PROJECT RATIONALE

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

1. Current context

Sustainable fisheries management is a global challenge with far-reaching economic, social, and environmental implications. The sector employs more than 90 million people, and over 3 billion depend on seafood as their main source of protein (FAO, 2024). However, unsustainable practices have accelerated the decline of marine biodiversity. According to FAO, the number of overexploited species has tripled in the last 50 years, and currently, one-third of the world's assessed fisheries operate above their biological limits (FAO, 2025).

One of the main drivers of this deterioration is illegal, unreported, and unregulated (IUU) fishing, considered one of the most serious threats to marine ecosystems. It is estimated to account for around 20% of global catches and up to 50% in some regions (Widjaja et al., 2020). Each year, it generates losses of between 11 and 26 million tons of fish, equivalent to an economic impact of nearly 50 billion dollars (Agnew et al., 2009; Sumaila et al., 2020). IUU fishing not only depletes populations and destroys habitats but also undermines food security and weakens the social cohesion of coastal communities.

In this context, Ecuador, Peru, and Chile, which share the highly productive Humboldt Current ecosystem, have together represented more than 10% of global fish production in certain years (FAO, 2025). However, the increase in fishing effort and the expansion of illegal, unreported, and unregulated (IUU) fishing significantly affect the status of several resource populations.

In Peru, more than 10 species have been identified whose biomass has considerably declined over the last 50 years, showing clear signs of vulnerability (Rovegno, 2021; Castagnino et al., 2023; Castagnino et al., 2024). Key resources such as mahi-mahi (*Coryphaena hippurus*) and jumbo flying squid (*Dosidicus gigas*) are caught in volumes close to or above their sustainable limits. In Chile, 53% of its main fisheries are overexploited or collapsed, including species of high commercial value (SUBPESCA, 2025). In Ecuador, assessments by the Public Institute for Aquaculture and Fisheries Research (IPIAP) show that species such as titi shrimp, mackerel, rock croaker, and frigate

tuna have reduced biomass or are at risk of overexploitation, representing one-third of the 12 main species evaluated by the scientific authority (IPIAP, 2025).

This situation is compounded by the expansion of IUU activities, which in some segments reach up to 50% of catches (Widjaja et al., 2020). These practices include operating without authorization, violating regulations (fishing out of season, in protected areas, or with prohibited gear), exceeding sustainable limits, or falsely or incompletely reporting catch information. They also encompass the illegal trade of species, as documented in shark trafficking cases between Peru and Ecuador without the corresponding CITES permits or certificates of origin (Hernandez, 2021; OCEANA, 2022). The combination of overfishing and IUU fishing threatens marine biodiversity and undermines the economic and social resilience of millions of people who depend directly on this ecosystem.

2. Drivers

The persistence of IUU fishing in the Humboldt Current ecosystem does not stem from a single factor but from the convergence of multiple drivers that reinforce each other. These drivers combine economic pressures derived from international demand, gaps in governance and regulatory frameworks, as well as deficiencies in monitoring and enforcement. For this project, the drivers are organized into three main categories: (i) economic incentives, (ii) governance weaknesses, and (iii) deficient monitoring and enforcement.

(i) Economic incentives

Economic incentives are one of the most direct and powerful drivers of IUU fishing. Globally, it is estimated that about one out of every five fish destined for human consumption comes from illegal activities, representing significant volumes and billion-dollar economic losses (Agnew et al., 2009; Sumaila et al., 2020). This is an old estimate, and figures are believed to have increased in recent years, reinforcing the perception that the benefits of non-compliance still far outweigh the associated costs and risks.

In response, major international markets have established regulatory frameworks to block the entry of illegally sourced products. The European Union, through Regulation (EC) No. 1005/2008, requires a valid catch certificate for each import and applies a “carding” system to non-compliant countries. The United States, through the Seafood Import Monitoring Program (SIMP), requires the declaration of catch, landing, and chain-of-custody data for 13 groups of species vulnerable to IUU fishing, including mahi-mahi, shrimp, and several tunas. Japan, for its part, implements a Catch Documentation Scheme (CDS) and pre-import controls, especially for species listed under CITES or regulated by multilateral agreements.

These market schemes shift the responsibility of demonstrating legality along the entire value chain and condition access to major commercial destinations. However, in the Humboldt Current, the economic incentives that fuel illegality persist. For many actors, complying with international requirements is costly and complex, while operating outside the regulatory framework offers

immediate benefits. The perception of a low risk of detection and sanction reinforces this logic and sustains illegality as a profitable alternative to formality.

(ii) Governance weaknesses

In the Humboldt Current, weaknesses in fisheries governance are a key factor sustaining the persistence of IUU fishing. At the national level, a significant portion of artisanal fisheries remains informal, with catches that are not adequately recorded or are traded outside official systems. This situation creates a growing risk: when activities remain unregistered or outside the regulatory framework, it opens a gradual path from informality to illegality, where the boundaries between tolerated and prohibited practices become blurred.

The lack of coordination among fisheries and environmental institutions aggravates this situation. Control, management, and scientific areas often operate in isolation, with fragmented information systems and limited interinstitutional coordination. The absence of solid mechanisms for data exchange prevents authorities from verifying the origin of catches in real time, making it easier for illegal products to enter seemingly legitimate supply chains.

Limited transparency in key processes such as quota allocation and monitoring, fishing permits, or publication of sanctions is also closely linked to IUU fishing. When there are no mechanisms for public access to this information, or when decision-making is perceived as influenced by political pressures or sectoral interests, trust in fisheries management weakens. This lack of trust reduces the legitimacy of institutions and encourages some operators to violate the rules, assuming that compliance is neither generalized nor equitable.

At the international level, the three countries participate in multiple forums and agreements such as the South Pacific Regional Fisheries Management Organization (SPRFMO), the Inter-American Tropical Tuna Commission (IATTC), the Port States Measure Agreement (PSMA), and various FAO bodies, which have enabled progress in joint measures against IUU fishing. However, information exchange remains limited, and coordination spaces lack the frequency and continuity required to address the problem.

Within this regional landscape, the Permanent Commission for the South Pacific (CPPS) plays a specific role as the intergovernmental coordination platform for the Southeast Pacific. Established through the 1952 Santiago Declaration, CPPS has a long institutional trajectory and operates under a formal regional cooperation framework. Following PIF approval, the PPG phase confirmed that in August 2020, during its XIII Extraordinary Assembly, CPPS had already adopted the *Regional Action Plan to Combat Illegal, Unreported and Unregulated Fishing in the Southeast Pacific*, which created a regional working group and established a structured mechanism for coordination among member States. The adoption of this instrument marked a more active engagement of CPPS in fisheries governance and IUU-related matters, areas in which its role had been more limited in previous years. While it establishes a basis for regional cooperation and information exchange, it was prepared during the COVID-19 period and lacks detailed operational protocols, technical standards, and structured implementation mechanisms.

Taken together, structural informality, institutional fragmentation, limited transparency, and gaps in the implementation and operational coordination of regional commitments weaken the overall governance environment. These conditions reduces the effectiveness of management and MCS measures to combat IUU fishing.

(iii) Deficient monitoring and enforcement

IUU fishing thrives in contexts where the probability of detection and sanction is minimal. The literature on regulatory compliance in fisheries shows that, on average, actual detection of infractions rarely exceeds 1%, making non-compliance a rational decision from a cost-benefit perspective for offenders (Kuperan & Sutinen, 1998; Agnew et al., 2009). Under these conditions, even when penalties are high on paper, their deterrent effect is diluted because the expectation of being punished is marginal (Sutinen & Andersen, 1985).

Monitoring, Control, and Surveillance (MCS) systems in the region rely heavily on physical patrols, on-site landing inspections, and onboard observers. These mechanisms are expensive to maintain and have limited coverage, especially in vast maritime areas with dispersed artisanal fleets. Comparative studies show that physical control is too costly to achieve broad coverage, creating areas and times without effective supervision (OECD, 2018; Pomeroy et al., 2018).

The absence of risk-based approaches aggravates this weakness. Without profiles that integrate operational and contextual data, inspections tend to be random or reactive, reducing the efficiency of enforcement efforts. Evidence shows that without prioritization mechanisms, enforcement becomes scattered and does not significantly change non-compliant behavior (Sutinen & Kuperan, 1999; Hatcher & Gordon, 2005).

These limitations are compounded by the dependence on manual processes and paper documentation at critical points in the chain, such as landings, transportation, and first sale. These systems are slow, vulnerable to errors and manipulation, and allow the circulation of incomplete or falsified information (Bailey et al., 2016; OECD, 2018). Moreover, the unequal application of sanctions, delayed proceedings, unpublished rulings, or fines that are not enforced, feeds the perception of impunity, erodes trust in institutions, and weakens regulatory legitimacy (Pedroza, 2013; Nunan, 2018).

Together, these failures create an environment where IUU fishing is not only possible but attractive. Low detectability, dependence on costly and limited mechanisms, lack of prioritization, vulnerability of processes, and practical impunity generate a vicious circle: illegality becomes a profitable, low-risk practice that undermines resource sustainability, weakens governance, and compromises the livelihoods of coastal communities (Donlan et al., 2020; Sumaila et al., 2020).

3. Baseline and future scenario

a. Baseline

At the global level, the United Nations Environment Programme (UNEP) supports efforts to combat illegal, unreported and unregulated (IUU) fishing and promote sustainable fisheries governance through international policy development, knowledge generation, partnerships with the financial sector, and engagement with seafood supply chains. Through the UNEP Finance Initiative (UNEP-

FI), and particularly the Sustainable Blue Economy Finance Initiative, UNEP collaborates with institutional investors and partner organizations to promote responsible investment and improved transparency in marine sectors, including fisheries. As part of this effort, UNEP-FI contributes to the Seafood Traceability Investor Engagement, a collaborative initiative led by FAIRR in partnership with WWF-US, Planet Tracker, and the World Benchmarking Alliance. This initiative engages major global seafood companies to strengthen digital traceability across their supply chains, expand traceability to the source of capture, and adopt interoperable standards aligned with the Global Dialogue on Seafood Traceability (GDST). These global initiatives help create market incentives for improved traceability and transparency in seafood value chains, reinforcing the policy and economic drivers for countries to modernize their monitoring, control, and surveillance systems.

In parallel, the UNEP World Conservation Monitoring Centre (UNEP-WCMC) contributes global technical work to define and monitor destructive fishing practices and to strengthen the evidence base needed for countries to address unsustainable fishing activities. These initiatives provide relevant global experience, analytical tools, and policy frameworks that inform the development of digital traceability systems and support countries in strengthening monitoring and compliance mechanisms.

At the regional and national levels, WWF has played a leading role in promoting the development and adoption of electronic catch documentation and traceability (eCDT) systems in Latin America, working closely with fisheries authorities, artisanal fishing communities, and seafood industries. WWF has supported the deployment of electronic fishing logbooks, on-board monitoring tools, mobile applications for catch recording, and the digitalization of administrative procedures that improve fisheries transparency and data quality. WWF also co-founded the Global Dialogue on Seafood Traceability (GDST) in 2017, which established globally recognized interoperability standards for digital seafood traceability systems.

These baseline initiatives provide an important foundation for the proposed project. The global policy, financial, and market initiatives led or supported by UNEP create incentives for improved seafood traceability, while WWF's regional technical work provides practical implementation experience with digital fisheries monitoring tools. Building on these efforts, the GEF project will support the development and interoperability of national electronic catch documentation and traceability systems in Chile, Peru, and Ecuador, strengthen regional cooperation, and enable the operational use of digital traceability data to support monitoring, control, and enforcement actions against IUU fishing.

In addition to public and civil-society initiatives, the baseline scenario in the Humboldt Current countries includes active and differentiated engagement by private-sector actors across key segments of the seafood value chain, primarily driven by export market requirements, buyer expectations, and sustainability commitments.

In Ecuador, companies operating in the tuna and longline sectors have made baseline investments to strengthen internal traceability and documentation practices. EUROFISH S.A. and Transmarina, together with other industry actors, have allocated resources to pilot electronic logbooks on industrial and longline vessels, support the digitalization of observer and landing data, and provide technical staff time to improve data consistency and reporting processes. These efforts are closely linked to ongoing Fisheries Improvement Projects (FIPs) and sustainability initiatives aimed at maintaining market access and compliance with international traceability requirements.

TUNACONS, as an industry consortium, contributes to baseline coordination among tuna operators, facilitating alignment of data practices and gradual adoption of digital tools across the sector. In parallel, companies such as EPESPO and Fresh Fish del Ecuador support operational testing of traceability practices within processing and export workflows, reinforcing documentation, legal origin verification, and compliance processes already in place.

In Peru, baseline private-sector investments reflect the distinct and complementary roles of companies, service providers, and market-oriented actors along the value chain. CLS Perú, as a provider of satellite and vessel monitoring services, supports baseline monitoring and data transmission for both industrial and artisanal fleets, working with the country's main fisheries to enable vessel positioning, operational tracking, and data availability that underpin control, verification, and traceability processes.

COINREFRI, as a processing and commercialization company, contributes baseline investments linked to internal traceability systems, compliance documentation, and data management required for domestic and export markets. In addition, COINREFRI is an active participant in the mahi-mahi Fisheries Improvement Project (FIP), a member of the Peru Mahi Alliance, and part of CAPECAL's participation in the jumbo flying squid FIP, contributing to sustainability commitments, traceability practices, and compliance efforts within these supply chains.In parallel, market-oriented initiatives such as PUCA and gastronomy leaders such as La Mar (Acurio Restaurants Group) play a baseline role in strengthening traceability within restaurants, local markets, and short value chains, by prioritizing documented and legally sourced seafood, facilitating information flows with suppliers, and reinforcing demand-side incentives that encourage early adoption of traceability practices among fishing communities, intermediaries, and small-scale operators serving domestic markets.

In Chile, baseline private-sector engagement is anchored in well-established industry organizations that already play an active role in supporting traceability, compliance, and coordination across fisheries and aquaculture value chains. SONAPESCA, representing industrial fishing and processing companies, contributes baseline investments through sectoral coordination, dissemination of regulatory and traceability requirements, and engagement with members to align operational practices with national control systems and export documentation processes. In parallel, AmiChile, representing the mussel aquaculture sector, supports baseline traceability efforts by coordinating producers and processing plants, facilitating information exchange on documentation and certification requirements, and promoting alignment between farm-level records, harvesting data, and processing and export documentation. These efforts contribute to sector readiness for digital traceability in a value chain where seed origin, harvesting authorizations, and product movement have been identified as persistent traceability challenges.

Across the three countries, these private-sector investments have focused primarily on company-specific or sector-specific approaches, including pilot testing of digital tools, internal system upgrades, staff training, and alignment with sustainability and market requirements. While these efforts have enabled early adoption of electronic documentation and traceability practices at different stages of the value chain, they remain fragmented, uneven in coverage, and weakly connected to national electronic catch documentation and traceability (eCDT) platforms and public Monitoring, Control, and Surveillance (MCS) frameworks.

As a result, the current baseline is characterized by parallel public and private traceability initiatives that have not yet converged into a coherent, interoperable, and scalable system at national or regional levels. Without GEF support, these private-sector investments would continue to evolve incrementally and independently, limiting their potential to contribute to systemic improvements in transparency, enforcement effectiveness, and regional cooperation. Further details on baseline private and public sector co-financing contributions are presented in the co-financing table. Despite these international and regional efforts, significant gaps remain at the national and regional levels in the Humboldt Current countries. Chile, Peru, and Ecuador have taken meaningful steps to strengthen Monitoring, Control, and Surveillance (MCS) and to move toward electronic catch documentation and traceability systems (eCDT). Chile has established the mandatory use of electronic logbooks for the industrial fleet, Peru is implementing the SITRAPESCA system for anchoveta destined for indirect human

consumption and is progressively expanding it to other fisheries and segments, and Ecuador centralizes information through the SIAP system, complemented by onboard observers in the tuna fleet. However, these advances are often developed in isolation, focused on specific fisheries or industrial segments, without a common framework for interinstitutional interoperability or a regional standard that ensures consistency in data collection and verification. The result is a patchwork of systems that fails to comprehensively close the gaps against IUU fishing. In quantitative terms, an estimated 1.405 million tons of landings from prioritized fisheries are currently recorded through existing national digital systems (SITRAPESCA, SIAP, and SERNAPESCA platforms). However, this registration occurs through heterogeneous tools, with uneven coverage and limited interoperability, and without standardized verification mechanisms across the three countries.

Adding to this is the high level of informality in artisanal fisheries, which represent a considerable share of landings in all three countries and remain highly dependent on intermediaries. In this segment, records are mostly manual or nonexistent, preventing the accurate reconstruction of catch traceability. The combination of an increasingly digitalized industrial sector with an artisanal sector that remains under informal schemes creates a gap that weakens resource control and allows undeclared or illegal products to enter supply chains.

International markets have imposed strict requirements to prevent the entry of illegal products, such as the European Union Regulation (EC) No. 1005/2008, the United States Seafood Import Monitoring Program (SIMP), and Japan's Catch Documentation Scheme (CDS). These measures aim to serve as structural tools against IUU fishing by requiring exporting countries and value chain actors to demonstrate the legal origin of products. In practice, however, institutional fragmentation, lack of interoperability among databases, and the absence of common standards limit governments' ability to respond in a consistent and verifiable manner to these requirements. In this context, some operators find ways to circumvent the rules, either by diverting products to less demanding markets or by using incomplete or fraudulent documentation. Seven initial digital linkages currently exist between WWF-supported eCDT tools and national authorities. These linkages provide useful early experiences that can be expanded, replicated, or strengthened to support broader coordination and interoperability among institutions.

This situation and its gaps are exploited by IUU fishing to continue operating. At the regional level, 13 documented cooperation actions have taken place in recent years, including PSMA meetings, initial uses of GIES and IORIS, one CPPS workshop, two IUU Fishing Regional Action Plan technical committee meetings, and the GALAPEX joint operations. These initiatives show willingness but do not constitute a sustained or institutionalized regional mechanism. The combination of isolated efforts, persistent informality, manual processes, and weak governance creates conditions where legality is not always the clearest or most convenient option for actors. In the absence of a project that links MCS and eCDT systems at the national and regional levels and aligns countries with international traceability standards, the region will remain vulnerable. This will not only allow IUU fishing to persist but also jeopardize the sustainability of marine resources and the commercial competitiveness of countries in the face of increasingly demanding international markets.

While each country has developed its own mechanisms for monitoring and control, the region shares critical cross-cutting challenges that characterize their current baseline and prevent them from moving away from the business as usual scenario:

- **Artisanal fisheries:** A persistent challenge across all three countries is the divide between a highly digitalized industrial sector and a largely informal artisanal sector. Because artisanal records remain predominantly manual or non-existent, it is difficult to ensure full chain traceability.
- **Fragmented systems:** Existing electronic tools often operate as isolated 'islands' of information. The lack of interoperability between different government databases limits their ability to provide integrated, real-time verification to address IUU.
- **Commitment to transparency:** Both Ecuador and Chile have shown significant leadership by adopting the Fisheries Transparency Initiative (FiTI) standard. This commitment, alongside a general regional alignment with global market requirements, provides a solid foundation for scaling digital solutions. Peru has not made such a commitment yet.

Specifically, while there are individual strengths there are also challenges faced by the countries, the most relevant of which are highlighted below:

Country	Main Success	Main Challenge
Ecuador	**SIAP System**: Successful digitalization of over 100 administrative and control processes.	**Pending procedures**: Delays in automating port entry authorizations (PSMA, CITES) and export workflows and integration between fisheries, maritime, and environmental authorities for CITES species.
Peru	**SITRAPESCA**: Implementation of a mandatory online registry covering the extraction and industrial processing phases.	**Coverage gap**: Limited monitoring of the artisanal fleet, as official statistics often exclude vessels without satellite tracking (VMS).
Chile	**High coverage**: 99% of sector declarations are submitted online with robust certification of landings.	**Obsolescence and data gaps**: Aging technological infrastructure (2010–2013) partial integration between traceability and export systems) and gaps in traceability for mussel- seeds and algae, and reduction fisheries traceability.

Further details on the current situation of eCDT systems in each country are presented below. Additional information can also be found in Appendix 1.

I. Ecuador[1]

In the context of this baseline, in Ecuador the project will prioritize fisheries where traceability gaps remain significant, including skipjack, yellowfin, bigeye, mahi mahi, swordfish, and pomada shrimp, which together represent key export and IUU-vulnerable species. The intervention will focus on the main landing and control points of Manta, San Mateo, Guayaquil, Posorja, and Puerto Bolívar, where operational pressures and documentation inconsistencies are most frequently reported. These fisheries and locations present heterogeneous levels of digital reporting and varying risks of diversion or incomplete documentation, which aligns with the baseline estimations established for each species in the results framework.

Ecuador has made significant progress in strengthening its fisheries control and traceability systems, mainly through the Integrated Aquaculture and Fisheries System (SIAP), which has digitalized more than 100 processes of the Vice Ministry of Aquaculture and Fisheries. SIAP has become the central platform for automating procedures and consolidating information related to monitoring, control, and surveillance, as well as fisheries traceability. Among the processes already integrated are arrival notifications, landing control, issuance of transport permits, and various catch and traceability certificates. More complex procedures are still pending, such as the authorization for port entry and use, which requires interoperability with the National Directorate of Aquatic Spaces (DIRNEA) and the Undersecretariat of Ports and Maritime and River Transport (SPTMF), as well as the management of exports of species subject to CITES, which requires coordination with environmental and foreign trade authorities.

Statistics from the Fisheries Control Directorate for 2021 reflect a system under consolidation but still facing coverage challenges. Landing supervision averaged 46.18 percent nationwide: 100 percent for the tuna and longline mothership fleets, 50 percent for other industrial fleets, and 39 percent for the artisanal fleet. At sea, operations covered 55 percent of vessels. That same year, 228,944 landing monitoring and control certificates were issued, and 3,810 inspections were carried out across different fisheries sectors. In parallel, the Industrial Fisheries Directorate issued 12,879 catch and traceability certificates, including 487 certificates of legal origin and 6,753 for processed and unprocessed catches, in addition to 2,320 import authorizations for fishery products. These figures reflect sustained efforts to document and trace operations, although challenges remain in data validation and full interoperability among systems.

In terms of institutional capacity, in 2021 the Fisheries Control Directorate had 384 staff members: 281 inspectors, 64 onboard observers, 16 in satellite monitoring, and 23 analysts. Although projections indicated the need for 452 personnel to meet demand, the available staff enabled a significant operational presence in the main landing ports. Shortfalls are concentrated in supervision and access to key logistical resources such as patrol vessels, which are essential to expand coverage to remote areas, including estuaries and islands.

On the regulatory front, Ecuador has also strengthened its legal framework and international commitments. The ratification in 2019 of the Agreement on Port State Measures marked a milestone by committing the country to prevent the entry of illegally caught fishery products through its ports. However, the digitalization of the port entry and use authorization process is still pending, as is the simplification of existing procedural guidelines among competent institutions, ensuring system interoperability and its connection with the GIES, so that control can be carried out more efficiently and transparently.

Regarding CITES, Ecuador still faces the task of establishing clear procedures, operational workflows, and interinstitutional coordination mechanisms to regulate the trade of species subject to international restrictions, such as sharks and rays. The integration process among the fisheries authority, the environmental authority, the Vice Ministry of Foreign Trade, and the Public Institute for Aquaculture and Fisheries Research (IPIAP) remains pending, requiring progress from the design of

protocols to the implementation of automated systems that enable agile, coordinated, and traceable management of export permits.

On the other hand, Ecuador is one of the implementing countries of the Fisheries Transparency Initiative (FiTI). Since 2021, it has had a formally established National Multi-Stakeholder Group, composed of public authorities, civil society organizations, and representatives of the fisheries sector. This group has already published the first FiTI report, which serves as a reference for assessing sector transparency and guiding improvements in fisheries management. Moreover, Ecuador has incorporated FiTI into its Open Government Action Plan (PAGA), reflecting a state-level commitment to transparency and accountability in fisheries.

Taken together, these figures and processes show a country that has made solid progress in building fisheries control and traceability systems. However, it faces the challenge of completing automation and ensuring interoperability in critical areas, particularly those requiring interinstitutional coordination or linked to international commitments.

II. Peru[2]

For Peru, the prioritized fisheries include anchoveta for direct human consumption, giant squid, mahi mahi, and five shark species (blue, smooth-hound, hammerhead, threshers). These fisheries combine high volumes, high export relevance, and documented risks of unreported or illegally diverted catch. The project will intervene in the main landing areas of Puerto Pizarro, Paita, Bayóvar, Chimbote, Pucusana, Pisco, Matarani, and Ilo, where current verification coverage is uneven and where SITRAPESCA, electronic logbooks, and complementary tools still have limited reach in artisanal segments. These fisheries and locations reflect the baseline conditions captured in the results framework, including partial digital coverage, high variability in validation procedures, and significant opportunities for improvement through eCDT systems.

In Peru, fisheries and aquaculture control is under the responsibility of the Ministry of Production (PRODUCE), through the General Directorate for Supervision, Inspection, and Sanctions of the Vice Ministry of Fisheries and Aquaculture, a unit that has two main structures for carrying out supervision and surveillance activities: the Directorate of Supervision and Inspection in Fisheries and Aquaculture (DSF-PA) and the Surveillance and Control Directorate, the latter being responsible for the National Program for the Surveillance and Control of Fisheries and Aquaculture Activities (PVCAPAAN). According to 2025 figures, there are 562 auditors or inspectors dedicated to supervision, inspection validation of data: 239 in the DSF-PA and 323 in PVCAPAAN. It should also be noted that there is personnel focused on regulatory and oversight functions, while another part is deployed in the field for operational tasks.

According to official reports, in 2023, inspection coverage reached 76.3%. However, this figure presents a significant bias, as it only includes artisanal vessels equipped with a satellite tracking system (VMS). Most small vessels do not have this mechanism, and therefore, are excluded from the calculation. In practice, the actual coverage of the artisanal fleet is much lower.

Control actions are concentrated at fixed landing sites, processing plants, and marketing centers, as well as six highway checkpoints in Tumbes, Lambayeque, La Libertad, Lima, and Ica, where the legal

origin of transported resources is verified. In 2024, 163,165 inspections were conducted, and 1,712 sanction resolutions were issued. In just the first half of 2025, 2,403 tons of products were confiscated, and 1,738 joint operations were carried out with the Police, the Navy (DICAPI), the Public Prosecutor's Office, and regional governments, reflecting sustained interinstitutional coordination efforts.

Despite these advances, PRODUCE's own plans acknowledge critical limitations. More specialized personnel and ongoing training in the use of modern technologies are needed. For example, projects related to artificial intelligence are planned, but they depend on budget availability. Logistically, the country has only eight (8) drones to cover the entire coast, and there is a recognized need for additional equipment to strengthen control and surveillance actions. Technologically, it is necessary to modernize the satellite system SISESAT, updating monitors and software to expand coverage and improve tracking accuracy. These shortcomings reduce the State's real capacity to comprehensively control fishing activities.

In parallel, Peru has developed several eCDT systems. SISESAT provides satellite vessel tracking; SITRAPESCA records information online from extraction to processing; the Electronic Logbook allows real-time reporting of fishing operations; and applications such as SIGPESCA and SIRPI are used to register record information on the transport of hydrobiological resources and for the registration of monitoring and control activities, respectively. Although these systems represent an important foundation, their coverage is still partial. SITRAPESCA has been mandatory since 2022 for the larger-scale fleet and industrial plants for processing fish meal and fish oil, but it has not yet been extended to artisanal fisheries, small plants, traders, or transporters. This generates a critical gap, as these segments are the most exposed to illegal fishing and informal trade.

The international context also requires strengthened controls. IUU fishing is recognized as a serious threat to resource sustainability, marine biodiversity, and food security. At the same time, Peru seeks to comply with the traceability standards of markets such as the European Union and the United States. Although the country has not received formal sanctions (such as EU "yellow cards"), the risk exists, so a preventive approach is maintained.

A sensitive area is the application of the CITES Convention for species such as sharks. Peru exports species included in Appendix II, which requires demonstrating that these operations do not affect population sustainability. To this end, PRODUCE, IMARPE, and MINAM must coordinate the issuance of permits and scientific evaluations. While there are ongoing efforts, they are not yet fully institutionalized. Various external reports and audits by the Office of the Comptroller General have highlighted the need to strengthen administrative procedures and control mechanisms so that the country can rely on clearer, more transparent, and reliable processes. This remains an area that requires further progress to ensure compliance with international commitments and to strengthen national management.

III. Chile[3]

In Chile, the project will prioritize key species that present traceability, enforcement, or documentation challenges, including anchoveta; South Pacific hake; Chilean mussel seed (Mytilus chilensis); and algae such as huiro palo (Lessonia trabeculata), huiro negro (Lessonia berteroana / Lessonia spicata), and huiro flotador (Macrocystis pyrifera). Interventions will focus on critical landing,

processing, and collection points located in Arica, Iquique, Huasco, Vallenar, Coquimbo, San Antonio, Caleta Cocholgue, Dalcahue, and Castro. These species and locations reflect the baseline conditions identified in the results framework, including partial digital reporting, incomplete traceability in artisanal segments, and the need to strengthen verification and interoperability across the value chain.

Chile has a consolidated fisheries control and traceability system, led by SERNAPESCA, which combines on-site inspections, mandatory satellite monitoring, and electronic reporting platforms. This model has allowed the sector to remain competitive in demanding markets such as the European Union, the United States, and Japan, and recently facilitated the opening of new destinations, such as Australia for salmon.

In 2024, 77 percent of national fish landings, equivalent to 1.89 million tons, were certified in person by SERNAPESCA officials. Coverage varies across segments: the industrial fleet records an average of 61 inspection activities[4] per 10 landings, while the artisanal fleet averages 6.5 per 10 landings. The institution has a staff of 1,160 people, enabling a wide operational presence with more than 68,000 field inspections and 119,000 remote controls via satellite monitoring each year. The VMS is mandatory for the entire industrial fleet (87 operational vessels per day on average) and for all artisanal vessels over 15 meters (around 280 vessels). In addition, there are more than 2,100 joint operations annually with the Navy and Carabineros, as well as seizures that in 2024 totaled 1,280 tons and 833 judicial complaints.

Traceability is managed through an ecosystem of electronic systems: SIFA for salmon farming, CCO for non-salmonid resources, the Traceability System covering extraction, marketing, and processing, and SISCOMEX for exports. Currently, 99 percent of sector declarations are submitted online. In 2024, 38,664 landing certifications, 543,220 legal origin accreditations, 5,258 catch certificates for the European Union, 668 for Japan, and 1,110 for ICCAT were issued, along with more than 60,000 sanitary export certificates. This ecosystem operates solidly but faces technological obsolescence, as most developments date back to 2010–2013. Moreover, integration between the traceability and export systems remains partial. SERNAPESCA's current strategy seeks to advance toward greater interoperability, allowing private operators to connect directly to the public platform and assume part of the technological investment.

Beyond general systems, specific programs have been implemented for certain fishery resources. In the case of algae, seizures have reached approximately 500 tons in recent years, mainly involving huiro negro (Lessonia berteroana / Lessonia spicata), along with huiro palo (Lessonia trabeculata) and huiro flotador (Macrocystis pyrifera). A digital traceability pilot allows collectors and users of Management and Exploitation Areas for Benthic Resources (AMERB) to report extractions from mobile phones, even without internet access, using QR codes. This innovation increased shore collectors' reporting by more than 6 percent compared to the previous year, demonstrating the usefulness of solutions adapted to low-connectivity areas.

For "macha" (*Mesodesma donacium*), an emblematic resource with a high risk of illegal extraction, a mandatory legal origin accreditation and traceability system was established in 2025. Each mesh

must bear a unique and non-transferable QR code, and records are electronically incorporated from the fisher to the trader. This model ensures verifiable traceability and allows the final consumer to scan the label to learn about the product's origin and date of extraction.

Nevertheless, the system faces significant challenges in the traceability of key species. Problems persist regarding the origin of "chorito" or Chilean mussel (*Mytillus chilensis*) seed, which limits the ability to certify the legality and sustainability of the resource. In the case of algae and anchoveta destined for fishmeal and reduction, questions remain about the consistency between reported landings and production ratios, requiring stricter controls throughout the value chain. Additionally, automatic fisheries certification, mandatory under the "*Ley de Fraccionamiento*", creates an increasing burden on SERNAPESCA, which does not always have sufficient personnel to meet demand in a timely manner.

Furthermore, Chile has publicly committed to implementing the FiTI Standard and has begun the process of forming its National Multi-Stakeholder Group. A representative of the Chilean government is part of the FiTI International Board, reinforcing the country's alignment with global transparency efforts in the sector. Likewise, Chile has included FiTI in its Open Government Action Plan (PAGA), demonstrating political will to advance toward a more open, participatory, and internationally aligned fisheries governance system.

Taken together, these elements show that while Chile has made significant progress in fisheries control and traceability, the system requires technological modernization, greater interoperability, and strengthened verification capacity to maintain market confidence and ensure the sustainability of its resources.

b. Future scenario

If fragmented efforts to address IUU fishing in the Humboldt Current continue without coordination, the future scenario points toward growing environmental, economic, and institutional vulnerability. Uncontrolled pressure on key species would progressively reduce biomass, affecting both target populations and associated species, as well as the stability of marine ecosystems. The resulting loss of biodiversity would limit resilience to climate events such as El Niño and decrease the recovery capacity of fisheries.

With less available biomass and increasing traceability requirements in international markets, the region would face serious challenges in demonstrating the legality of its products. This could lead to trade restrictions, sanctions, or export suspensions to key destinations such as the European Union, the United States, or Japan. The loss of access to these markets would not only reduce foreign exchange earnings but also damage the countries' international reputation, undermining competitiveness and limiting opportunities for investment and cooperation.

The economic impacts would extend throughout the entire value chain. Reduced availability of legal and verifiable products would lower activity in processing plants, ports, and logistics services,

affecting employment and income in already vulnerable sectors. In coastal communities, the decline in fishing activity would translate into fewer jobs and lower food security, weakening access to one of the main sources of low-cost protein. This would deepen social inequality and generate tensions over access to resources and markets.

At the institutional level, the persistence of IUU fishing without effective control would reinforce the perception of impunity, weakening trust in the authorities responsible for managing marine resources. Reliance on paper-based procedures and the existence of discretionary spaces would increase the risk of corruption, while the lack of regional coordination would continue to leave open ways for illegal trade. In this scenario, IUU fishing would not only erode environmental sustainability but would also become a factor of economic and social instability, weakening governance in all three countries and their ability to meet international commitments.

c. Barriers

In the Humboldt Current region, the adoption and consolidation of eCDT systems face structural obstacles that enable the persistence of IUU fishing. Based on the analysis of the situation in Ecuador, Peru, and Chile, six main barriers have been identified that limit their effectiveness and sustainability, which are described below. More details on these barriers can be found in the problem tree (Figure 1).

Barrier 1. Insufficient technological infrastructure, low connectivity, paper-based processes, and low interoperability

The fisheries sector in Ecuador, Peru, and Chile continues to rely heavily on paper-based documentation and fragmented databases. Many landing sites lack the basic connectivity and technological infrastructure (equipment, networks, and storage systems) needed to support modern eCDT systems. This dependence on manual processes causes delays in verification, creates room for discretion in data recording and management, and prevents the timely exchange of information between institutions.

Interoperability problems extend beyond the fisheries sector. Traceability systems are still not integrated with key institutions such as those responsible for foreign trade, quality and safety, port authorities, and maritime captaincies, limiting the ability to ensure traceability along the entire value chain. This lack of interinstitutional coordination weakens the credibility of fisheries management systems and hinders compliance with the traceability requirements demanded by international markets. If not addressed, this barrier will continue to restrict the effective and sustainable use of eCDT systems.

Barrier 2. Fragmented regulations, weak enforcement and compliance, and limited interinstitutional coordination

In all three countries, regulatory and administrative frameworks for fisheries traceability remain fragmented and poorly coordinated. At the national level, coordination among public institutions involved in fisheries procedures and services is weak. This includes authorities responsible for

fisheries, foreign trade, quality and safety, ports, maritime captaincies, and customs. This lack of coordination creates gaps, duplication of efforts, and inefficiencies in management.

In terms of enforcement, governments have made efforts but achieved 100% territorial coverage or certifying all catches is not viable. In Chile, this structural limitation has led to the adoption of complementary mechanisms, such as integrated value chain operation declarations, to expand monitoring. In Ecuador, authorities have managed to cover 100% of industrial landings and around 60% of artisanal fisheries; however, partial coverage reflects the dispersion of more than 290 artisanal landing sites, making full supervision by government personnel humanly impossible.

In Peru, industrial fisheries operate under a digital traceability system that integrates landing records, plant-level controls, and the mandatory reporting of larger-scale vessels through the "Bitácora Electrónica" (Electronic Logbook), a component of SITRAPESCA. Likewise, industrial fishmeal and fish oil processing plants must register their information in this system, while processing plants for direct human consumption are expected to be incorporated on a mandatory basis soon. The main challenge lies in the artisanal sector, which operates more than 3,000 kilometers of coastline and numerous landing points. There, coverage averages between 40% and 60%, depending on the fishery, as many landings occur at night or on weekends, when staff are not present or must divide their time among multiple sites.

The absence of solid mechanisms for interinstitutional coordination prevents integrated information management along the value chain. For example, data collected at landing sites are not always linked to export certificates, sanitary controls, or port permits, creating gaps that operators can exploit to evade controls.

Barrier 3. Limited human and financial resources

Government institutions responsible for fisheries face persistent shortages of staff and limited budgets to implement and sustain Monitoring, Control, and Surveillance (MCS) systems and electronic catch documentation and traceability (eCDT) systems. The main constraint lies in the lack of financial resources to hire enough professionals in key areas such as data analysis, enforcement, observation, and technology (developers, systems specialists, project managers, among others). These are necessary to support traceability systems and ensure their continuous improvement.

At the same time, current budgets do not allow sustained investments in new technologies or continuous training programs. This delays the implementation of eCDT systems and compromises their long-term sustainability. Without sufficient human and financial capacities, governments face serious difficulties in scaling up digital solutions and ensuring effective monitoring and control of fishing activities.

Barrier 4. Insufficient regional coordination and lack of articulated mechanisms for effective fisheries information exchange

The fisheries of the Southeast Pacific are closely interconnected: they share resources, value chains, and markets. Management in one country directly affects the others. Species such as mahi-mahi or tuna (highly migratory), as well as small pelagics, are caught in the waters of Ecuador, Peru, and Chile. Products may be processed in one country and exported from another, and all depend on the same international destinations, particularly the European Union and the United States.

Despite this interdependence, regional cooperation remains limited and fragmented. Information exchange mechanisms lack common protocols that would allow for the joint verification of essential traceability of documents such as catch certificates, landing authorizations, or export permits. Likewise, although CPPS has adopted a Regional Action Plan to Combat IUU Fishing that provides a formal framework for cooperation, its implementation arrangements and operational mechanisms require further development to enable effective coordination. This lack of coordination hinders continuous tracking of fishery products across borders and limits collective capacity to combat IUU fishing, creating opportunities for illegal products to circulate undetected and reach international markets. The absence of a strong regional mechanism also prevents progress in joint strategies and wastes opportunities for mutual learning.

Barrier 5. Resistance to change, lack of effective incentives, and high informality along the value chain

Despite the growing global demand for legal and traceable seafood products, there remains significant resistance to adopting digital systems within the fisheries value chain. This resistance stems from limited understanding of the benefits of eCDT systems, fear of additional administrative burdens, and distrust of government platforms.

The lack of clear incentives (financial and non-financial) further weakens motivation to comply with traceability systems. Added to this is the high level of informality in artisanal fisheries, which makes it difficult to integrate these actors into digital monitoring schemes.

An additional aspect is the generational gap: many adult and elderly fishers face challenges in understanding or using digital tools, which limits their effective participation and slows the widespread adoption of new technologies.

Barrier 6. Gender inequalities in access, participation, and benefits (Cross-cutting barrier)

Women and youth play essential roles in fisheries but face inequalities that restrict their full integration into the sector. In terms of access, they have fewer resources, training opportunities, and means to enter the value chain. In participation, they are underrepresented in governance and decision-making spaces, limiting their influence in defining policies and control mechanisms. In terms of benefits, they receive fewer incentives, economic support, and recognition for their contributions compared to other actors.

These structural limitations pose a clear risk: that the digitalization of eCDT systems may end up reinforcing gender and generational gaps instead of reducing them. To prevent this, it is essential to

incorporate specific inclusion strategies in a cross-cutting manner to ensure the active participation of women and youth in the design, adoption, and benefits of these systems.

4. Strategy and justification

a. Project objective and approach

The project aims to strengthen the effective use of eCDT systems in Ecuador, Peru, and Chile by coordinating and improving governmental traceability schemes, along with the adoption of international standards throughout the fisheries value chain. In doing so, it seeks to advance toward more transparent, efficient, and evidence-based fisheries management, in line with multilateral commitments on marine sustainability and responsible trade, and to contribute to combating IUU fishing. The strategy combines three complementary fronts:

- **National.** Each country will consolidate and coordinate its eCDT systems, ensuring interoperability among key institutions such as fisheries, environmental, customs, health and safety, foreign trade, and maritime and port authorities. Traceability will be expanded along the entire value chain, from landing to export, with a focus on integrating artisanal fisheries, currently the segment most vulnerable to IUU fishing. In addition, the systems will be aligned with international regulatory and market requirements (PSMA, CITES, SIMP, EU, CDS), strengthening the sector's competitiveness.

- **Regional.** Mechanisms for information exchange and joint verification will be created among the three countries, within existing frameworks such as the Permanent Commission for the South Pacific (CPPS), the South Pacific Regional Fisheries Management Organization (SPRFMO), and the Inter-American Tropical Tuna Commission (IATTC). Since highly migratory species such as mahi-mahi and tuna move through shared waters, and there are also small pelagic fisheries in all three countries, regional cooperation is essential to close pathways for illegal products and prevent them from moving between jurisdictions and entering global supply chains.

- **Capacity building and pilots.** The project will promote training programs for public and private actors, including women, youth, and artisanal fishing organizations. Pilot projects will be carried out in key fisheries and areas of the value chain to test technologies, improve processes, and demonstrate whether eCDT systems function effectively under different conditions. These pilots will generate practical learning, reduce resistance, and lay the foundation for the scaling and sustainability of digital solutions.

Together, these three fronts ensure that the strategy goes beyond technology and is grounded in pillars of governance, cooperation, and human capacity development, essential for transforming the fisheries sector. In doing so, the project seeks to contribute to the conservation of marine biodiversity and the sustainable use of resources, while strengthening food security, competitiveness, and the livelihoods of coastal communities in Ecuador, Peru, and Chile.

b. Justification of the proposed solution

IUU fishing is one of the main threats to ocean sustainability. It reduces fish populations, degrades marine ecosystems, affects food security, and weakens the economies of coastal communities that

depend directly on fishing. It also generates millions in losses for States and jeopardizes the access of products to international markets. Addressing IUU fishing is therefore an environmental, social, and economic necessity.

Traditional control mechanisms show limited effectiveness. Even with high penalties, the actual probability of detecting violations is very low, in some cases below 1% (Kuperan & Sutinen, 1998). In this scenario, the economic incentives for non-compliance remain intact. As long as the certainty of detection and sanction does not increase, illegal fishing will continue to be an attractive option for those seeking immediate gains.

On-site surveillance through patrols, port inspections, or onboard observers is costly and impossible to scale. None of the three countries have the capacity to cover their entire coastline, hundreds of artisanal landing sites, and dispersed fleets with physical personnel. This creates temporal and spatial gaps that are exploited by illegal operators. In practice, achieving total coverage through traditional means is both technically and financially unfeasible.

In light of these limitations, eCDT systems offer a cost-effective alternative to strengthen Monitoring, Control, and Surveillance (MCS). They allow expanded coverage without the need for constant physical presence, real-time data recording from catch to export, and reduced document manipulation. By increasing the likelihood of detection, they change the incentives that sustain illegal fishing. Furthermore, digitized information improves fisheries research and management, enabling timely management decisions.

The adoption of eCDT systems responds not only to internal control needs but also to international commitments and export market requirements. The European Union (Regulation EC 1005/2008), the United States (Seafood Import Monitoring Program, SIMP), and Japan (Catch Documentation Scheme, CDS) require verifiable traceability as a condition for market access. Likewise, instruments such as the Agreement on Port State Measures (PSMA) and the CITES Convention reinforce the obligation to demonstrate the legality of catches. In this context, strengthening and aligning eCDT systems is essential to secure and expand access to key markets and avoid trade sanctions.

Also, as IUU fishing operates across borders and fisheries value chains move between jurisdictions, isolated national measures have limited impact. Differences in traceability systems, documentation formats, and data-sharing practices create inconsistencies that reduce transparency and weaken enforcement effectiveness. An effective regional approach is therefore necessary to promote interoperability, harmonized procedures, and coordinated monitoring among countries that share fisheries resources and export markets. Strengthening regional alignment of eCDT systems will enable countries to jointly address IUU fishing risks and improve the credibility of traceability information throughout the value chain.

c. Alignment with national and regional priorities

In Chile, the General Law on Fisheries and Aquaculture (Law No. 18.892 of 1991, with successive amendments in 2002 and 2013) regulates the use and conservation of hydrobiological resources under a precautionary and ecosystem-based approach. Its implementation is carried out through the General Regulation of the Law (Supreme Decree No. 430/1991, periodically updated), complemented by management plans, decrees, and resolutions issued by the Undersecretariat of Fisheries and Aquaculture (SUBPESCA) and enforced by SERNAPESCA. Likewise, SERNAPESCA also issues operational orders and resolutions that enable the exercise of its enforcement powers. The National Action Plan against IUU Fishing (2005) and the National Biodiversity Strategy 2017–2030 reinforce this framework. The project will contribute to these instruments by strengthening electronic traceability systems that enable more efficient and transparent monitoring.

In Ecuador, the Organic Law for the Development of Aquaculture and Fisheries (LODAP), published in Official Register Supplement 387 in April 2020, establishes a comprehensive framework for fisheries and aquaculture management. Its implementation is governed by the General Regulation (Executive Decree No. 362 of September 2020, with amendments), which covers permits, licenses, traceability, and sanitary control. This framework also includes the National Action Plan to Prevent, Deter, and Eliminate IUU Fishing (PAN-IUU), aligned with the FAO International Plan of Action, and focused on more effective sanctions, a strengthened MCS system, and international cooperation. The project will reinforce this framework by supporting the practical implementation of eCDT systems, with an emphasis on artisanal fisheries.

In Peru, the General Fisheries Law (Decree Law No. 25977) promotes the rational use of hydrobiological resources and incorporates monitoring, control, and surveillance as essential components of management. Its regulatory development is contained in Supreme Decree No. 012-2001-PE (with subsequent amendments), which governs licenses, permits, management measures, and control mechanisms. This is complemented by specific regulations issued by PRODUCE and SANIPES, including traceability and sanitary control standards. The project is aligned with this framework through the expansion of the National Traceability System (SITRAPESCA), with particular attention to integrating the artisanal sector and improving interoperability between systems.

At the regional level, the three countries are founding members of the Permanent Commission for the South Pacific (CPPS), reflecting a long-standing trajectory of cooperation since 1945. They also participate in key instruments such as the United Nations Convention on the Law of the Sea (UNCLOS)[5], the Convention on Biological Diversity (CBD), the Agreement on Straddling and Highly Migratory Fish Stocks (UNFSA)[6], the Agreement on Port State Measures (AMERP), the South Pacific Regional Fisheries Management Organization (SPRFMO), and the Inter-American Tropical Tuna Commission (IATTC). They are further committed to international guidelines such as the FAO Code of Conduct for Responsible Fisheries, the FAO International Plan of Action to Prevent, Deter and Eliminate IUU Fishing, and the APEC Roadmap 2020–2025.

In the trade sphere, the three countries face international commitments that condition access to strategic markets. Since 2010, the European Union has enforced Regulation (EC) No. 1005/2008, requiring catch certification for all imported products. The United States has implemented the Seafood Import Monitoring Program (SIMP) since 2018, establishing mandatory traceability for 13 priority species, including tuna, shrimp, sharks, and mahi-mahi. Japan requires Catch Documentation

Schemes (CDS) and pre-certification processes for imports of species regulated under international conventions. In addition, the CITES Convention requires permits for listed species such as sharks, which are particularly vulnerable to illegal and unregulated trade. These frameworks act as trade access barriers but can also serve as levers for transformation, as they compel exporting countries to modernize their traceability systems and strengthen legality verification.

Thus, the project builds upon an existing national, regional, and international regulatory framework, as well as market requirements, ensuring its application through the strengthening and coordination of eCDT systems that contribute to combating IUU fishing, reinforcing fisheries sustainability, and maintaining access to key international markets.

d. Key stakeholders

The effectiveness of the project depends on the active participation of a diverse group of actors at national, regional, and sectoral levels, whose joint collaboration ensures the legitimacy, technical feasibility, and sustainability of eCDT systems. The following sections describe the main institutions and organizations involved in Peru, Chile, and Ecuador, as well as regional bodies, the private sector, and fishers' associations. Their institutional mandates, competencies, and roles in implementing eCDT systems are highlighted to ensure a comprehensive approach that links regulation, enforcement, science, markets, and social participation.

- **Fisheries and environmental authorities**

In Peru, the Ministry of Production (PRODUCE) leads fisheries policy with support from the Regional Production Directorates (DIREPRO). In Chile, this function falls under the Undersecretariat of Fisheries and Aquaculture (SUBPESCA), while in Ecuador, it is exercised by the Vice Ministry of Aquaculture and Fisheries (VAP/SRP). These institutions regulate fisheries, issue permits, and define sectoral rules. They are essential to ensure the legal validity of eCDT systems and that the data generated are binding for management purposes. Fisheries enforcement in Peru, Chile, and Ecuador is carried out by different authorities. In Peru, it is led by the General Directorate for Supervision, Inspection, and Sanction within the Vice-ministry of Fisheries and Aquaculture (DVPA). In Ecuador, these functions fall under the Directorate of Fisheries Control within the Vice-Ministry of Aquaculture and Fisheries (VAP). In Chile, enforcement is conducted by the autonomous National Fisheries and Aquaculture Service (SERNAPESCA). These institutions also oversee the development of digital traceability and eCDT systems, ensuring compliance and supporting fisheries management. Meanwhile, the environment ministries of each country (MINAM, MMA, and MAATE) contribute the sustainability perspective and ensure that vulnerable species such as sharks and rays comply with CITES and conservation requirements.

- **Maritime and control authorities**

Maritime surveillance is carried out by the Directorate General of Captaincies and Coast Guard (DICAPI) in Peru, the Directorate General of the Maritime Territory and Merchant Marine (DIRECTEMAR) in Chile, and the National Directorate of Aquatic Spaces (DIRNEA) in Ecuador. These institutions oversee vessel departures, arrivals, and safety in national waters. Through eCDT, they will be able to link permits, vessel movements, and landings, allowing for more targeted enforcement and a more effective response to illegal operations.

- **Sanitary and customs authorities**

The National Fisheries Health Agency (SANIPES) in Peru, the National Fisheries and Aquaculture Service (SERNAPESCA) in Chile, and the Subsecretariat for Quality and Safety under the Vice Ministry of Aquaculture and Fisheries (VAP) in Ecuador are responsible for ensuring the safety of fishery products and issuing the corresponding certifications. Meanwhile, national customs agencies (SUNAT in Peru, the National Customs Service in Chile, and SENAE in Ecuador) play a key role in foreign trade processes by verifying documentation and procedures associated with the export of fishery products. With eCDT, these institutions will be able to connect sanitary and commercial traceability with verification of the legal origin of products, reinforcing transparency and confidence in international markets.

- **Scientific research institutes**

The Peruvian Sea Institute (IMARPE), the Fisheries Development Institute (IFOP) in Chile, and the Public Institute for Aquaculture and Fisheries Research (IPIAP) in Ecuador generate knowledge on resources and ecosystems. Their scientific data guide management measures such as closed seasons, minimum sizes, and quotas. Through eCDT systems, these institutions can expand their information sources by accessing more accurate and timely data on actual catches, fishing effort, and other parameters, thereby strengthening the technical foundation for decision-making.

- **Regional bodies**

Regional cooperation is essential to address transboundary challenges such as IUU fishing. At the global level, regional fisheries management organizations such as the Inter-American Tropical Tuna Commission (IATTC) and the South Pacific Regional Fisheries Management Organization (SPRFMO) manage highly migratory and straddling stocks across large ocean areas. IATTC focuses on tropical tunas and associated species (such as sharks or mahi mahi). SPRFMO manages stocks such as jack mackerel and jumbo flying squid in the South Pacific high seas. Both organizations adopt conservation measures, maintain authorized vessel lists, and are advancing standardized reporting and electronic monitoring through compliance and at-sea monitoring working groups.

There is some overlap between RFMO mandates and fisheries operating in the region. However, this overlap does not extend to the fisheries prioritized under this project. These priorities require an institutional mandate focused on coastal states and on coordination of national implementation, which differs from the global stock management mandates of RFMOs. They require a platform that can coordinate coastal enforcement, align national measures, and support structured regional follow-up.

For this reason, the Permanent Commission for the South Pacific (CPPS) provides the appropriate institutional framework. CPPS enables structured political and technical coordination among Peru, Chile, Ecuador, and Colombia, particularly for aligning national measures to combat IUU fishing and strengthening regional enforcement cooperation. In this context, SPRFMO and IATTC remain complementary global mechanisms, especially through their technical working groups on reporting and electronic monitoring, while CPPS provides the space for regional policy alignment, coordinated action against IUU fishing, and the structured implementation of tools such as eCDT systems among coastal States.

In parallel, the Latin America and Caribbean Information and Experience Exchange Network for Combating IUU Fishing (Red Pesca INDNR), established in 2017 at the request of countries such as

Peru, Ecuador and Chile (and others from the region) with technical support from FAO, operates as a country-driven technical cooperation platform. It is not a regional fisheries management organization nor an international body with formal structure and mandate. Rather, it facilitates information exchange, operational dialogue, and capacity strengthening among participating States to prevent, deter and eliminate IUU fishing.

In this context, SPRFMO and IATTC are not executing partners in the project but remain relevant complementary global mechanisms, particularly through their standards, technical guidance, and technical working groups on reporting and electronic monitoring. CPPS provides the political coordination space while Red Pesca INDNR serves as the regional technical exchange platform. Together these platforms provide the regional foundation upon which eCDT systems can be aligned and implemented. This approach supports the transition from policy coordination to practical cooperation among countries, strengthening joint efforts to combat IUU fishing and improve the management of shared marine resources.

- **Private sector**

The private sector is a decisive actor because it connects production with national and international markets and sets quality and compliance standards that influence the entire value chain. In Peru, the National Fisheries Society (SNP) brings together the main fishmeal and fish oil companies, while the Peru Mahi Alliance (PMA) and the Peruvian Chamber of Jumbo Flying Squid (CAPECAL) represent exporters of mahi-mahi and squid. In Chile, the National Fisheries Society (SONAPESCA), which groups industrial companies, and the Association of Mussel Farmers of Chile (AMICHILE), a key organization in the mollusk sector, stand out. In Ecuador, the National Fisheries Council (CNP) brings together various fisheries associations, while the TUNACONS initiative represents an alliance of tuna companies committed to sustainability.

Many of these associations have sought to align their operations with international standards, and some are progressing toward certification under the Marine Stewardship Council (MSC) in tuna, squid, mahi-mahi, and mollusk fisheries. The integration of eCDT systems reinforces these efforts by allowing verifiable demonstration of the legal and sustainable origin of products, a key requirement for accessing demanding markets and for maintaining or achieving sustainability certifications. The participation of the private sector is also a guarantee of feasibility: its involvement ensures that technological solutions are adapted to the operational realities of processing plants, fleets, and exporters, and that they generate economic incentives to consolidate system sustainability in the long term.

- **Artisanal fishers' organizations**

Artisanal fishers' cooperatives and associations are the starting point of the system, as they generate the primary data on catches, what is caught, where, and how. Without their participation, a complete traceability system cannot exist. eCDT systems offer them a pathway toward formalization, access to more competitive markets, and recognition for sustainable practices. Moreover, they strengthen their role as allies of sustainability, not merely as subjects of control, ensuring that traceability functions effectively from the very base of the value chain.

5. Global Environmental Benefits (GEBs) and Co-benefits

The Global Environment Facility (GEF) directs its investments toward generating Global Environmental Benefits (GEBs), including biodiversity conservation, sustainable management of shared ecosystems, and strengthening resilience to climate change. GEF-supported projects also seek to produce social and economic co-benefits by improving livelihoods, food security, and equity. This section details how the project's Components and Outcomes contribute to both levels.

In this case, the global environmental benefits are expressed in three main dimensions, biodiversity, regional cooperation, and ecosystem resilience, each directly linked to the project's intervention framework:

- **Conservation and sustainable use of marine biodiversity in a megadiverse and productive seascape.** The project will reduce overfishing and illegal fishing by strengthening control and traceability systems in the region. Through more transparent and reliable processes, it will ensure that catches come from legal and sustainable sources, promoting the conservation of marine species and the balance of ecosystems. This will guarantee the long-term availability of fishery resources and protect the livelihoods that depend on them.

- **Cooperation among States and institutions to address threats in shared waters.** The project will strengthen regional cooperation against IUU fishing by promoting information exchange and coordination of joint actions. The creation of stable collaboration mechanisms will enable countries to respond more effectively to transboundary threats and harmonize efforts in the management of shared fisheries and marine resources. This will foster stronger governance and more sustainable use of ecosystems that transcend national boundaries.

- **Greater resilience of ecosystems and fisheries to climate change.** Strengthening traceability and control systems will enable management decisions based on verifiable data, increasing adaptive capacity to changing marine conditions associated with climate change and oceanographic variability. Likewise, aligning eCDT systems with international market certification and traceability requirements will reinforce the sustainability and competitiveness of fisheries, ensuring their long-term ecological and socioeconomic resilience.

In addition, the project will generate social and economic co-benefits that reinforce sectoral sustainability and community well-being. Reducing illegal fishing and strengthening traceability will create a more stable and trustworthy environment for formal operations, thereby improving the competitiveness of fisheries value chains and facilitating access to demanding international markets. This enhanced legality and transparency will help reduce economic losses and create more equitable conditions for artisanal fishers, strengthening food security by ensuring that fishery products reach consumers reliably. At the same time, the project will promote the inclusion of women and youth through training and active participation processes, strengthening coastal livelihoods and generating fairer, more sustainable social impacts.

B. PROJECT DESCRIPTION

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

- This project has been formulated through a participatory process involving government authorities, scientific institutions, the private sector, and artisanal fishers' organizations from the three countries. As a result of this process, the problem tree and theory of change have been updated, along with the results framework, which is now presented in greater detail. These inputs form the basis for organizing the project's components, outcomes, and expected outputs, guiding an intervention aimed at strengthening electronic traceability and advancing toward more sustainable, transparent, and resilient fisheries in the Humboldt Current region.

  1. Problem tree

  It has been determined that the central problem is "*The limited use of electronic catch documentation and traceability systems (eCDT) in Peru, Chile, and Ecuador*", which weakens the ability of authorities to prevent, detect, and deter illegal, unreported, and unregulated (IUU) fishing. This problem arises from a set of structural and persistent causes operating at different levels of governance across the three countries:

  - **Governance weaknesses:** The regulatory frameworks of the three countries show fragmentation and weak national coordination with other government institutions involved in processes inherent to the fisheries sector. There are regulatory gaps and, in some cases, discretionary or uneven enforcement of regulations, creating uncertainty among sector actors and loopholes in the fight against IUU fishing. Likewise, interinstitutional coordination within each country and regional cooperation among Peru, Chile, and Ecuador remain limited, preventing interoperability and the smooth exchange of information on catches and exports. The lack of effective transparency mechanisms and timely access to information also reduces accountability and trust in institutions.

  - **Insufficient operational capacities:** eCDT systems still face technological and financial gaps that limit their full operation. Available infrastructure (hardware, software, connectivity networks, data storage) is insufficient or outdated to support the large-scale digitalization of fisheries processes. Moreover, public budgets are limited and unstable, compromising the medium- and long-term sustainability of these systems. This is compounded by a shortage of specialized technical personnel in ministries and control agencies, restricting the operation, maintenance, and evolution of digital platforms. As a result, there remains a strong reliance on paper-based processes, with partial traceability and low interoperability, generating vulnerabilities in data verification and enforcement.

  - **Social and cultural factors:** High levels of informality in the fisheries sector, both in harvesting and first sale, constitute a structural obstacle to the implementation of eCDT systems. Many actors operate outside the regulatory framework and view formalization as a risk rather than an opportunity. This is coupled with resistance to change, stemming from a lack of trust in the State and the perception that digital systems are complex or will generate additional costs. There is also widespread lack of knowledge about regulatory and market requirements related to traceability and legal fishing, limiting actors' willingness to adopt these practices. In addition, gender and generational gaps persist, reducing the participation of women and youth in training, formalization, and decision-making processes. Their roles, especially in

processing, marketing, and administration, remain underrecognized, which limits their contribution to the adoption of technological innovations such as eCDT.

These root causes produce specific impacts on government institutions, ecosystems, and the social and economic dimensions of the fisheries sector in the three countries, as described below:

- **Institutional impacts:** The limited adoption of eCDT systems undermines the effectiveness of fisheries management and Monitoring, Control, and Surveillance (MCS) mechanisms. Regulatory gaps and institutional fragmentation generate normative and operational voids that facilitate activities leading to IUU fishing and increase discretion in law enforcement. This weakens institutions' capacity to implement fisheries management measures effectively and erodes stakeholder confidence in the institutional framework. At the regional level, lack of interoperability hampers cooperation among countries and complicates control of cross-border flows of fishery resources, reducing collective capacity to combat illegal fishing.

- **Environmental impacts:** The absence of fisheries traceability prevents the availability of reliable and timely information on the origin, quantity, and species of catches, limiting control capacity and facilitating IUU fishing. This lack of effective oversight leads to the depletion of commercial and vulnerable species populations, compromising the long-term sustainability of resources. Furthermore, the inability to adequately verify fishing practices exacerbates the degradation of critical habitats and ecosystems, including spawning and nursery grounds, weakening the oceans' capacity to sustain fishery productivity. Altogether, these dynamics result in a significant loss of marine biodiversity, affecting not only ecological balance but also the resilience of ecosystems to climate change.

- **Social impacts:** Artisanal and coastal fishing communities are the most vulnerable to IUU fishing and the absence of effective traceability systems. Structural informality and lack of control mechanisms result in the loss of formal jobs and perpetuate precarious working conditions. Limited access to formalization and training also restricts opportunities to improve the livelihoods of fishers, women, and youth, widening gender and social exclusion gaps. The lack of trust in public institutions weakens social cohesion and limits cooperation among sector actors, generating a cycle of mistrust that hinders participatory governance and the social sustainability of fisheries.

- **Economic impacts:** The absence of robust traceability and the persistence of IUU fishing erode the competitiveness of national fisheries in international markets that increasingly demand transparency and compliance with standards. This results in the loss of export markets, reducing access to high-value niches such as the European Union and the United States. Lack of control also leads to decreased income for sector actors, especially fishers and small enterprises, and affects fiscal revenue, as governments forgo income from undeclared illegal catches. Consequently, a negative economic cycle is reinforced, where informality prevails over investment in sustainability. .

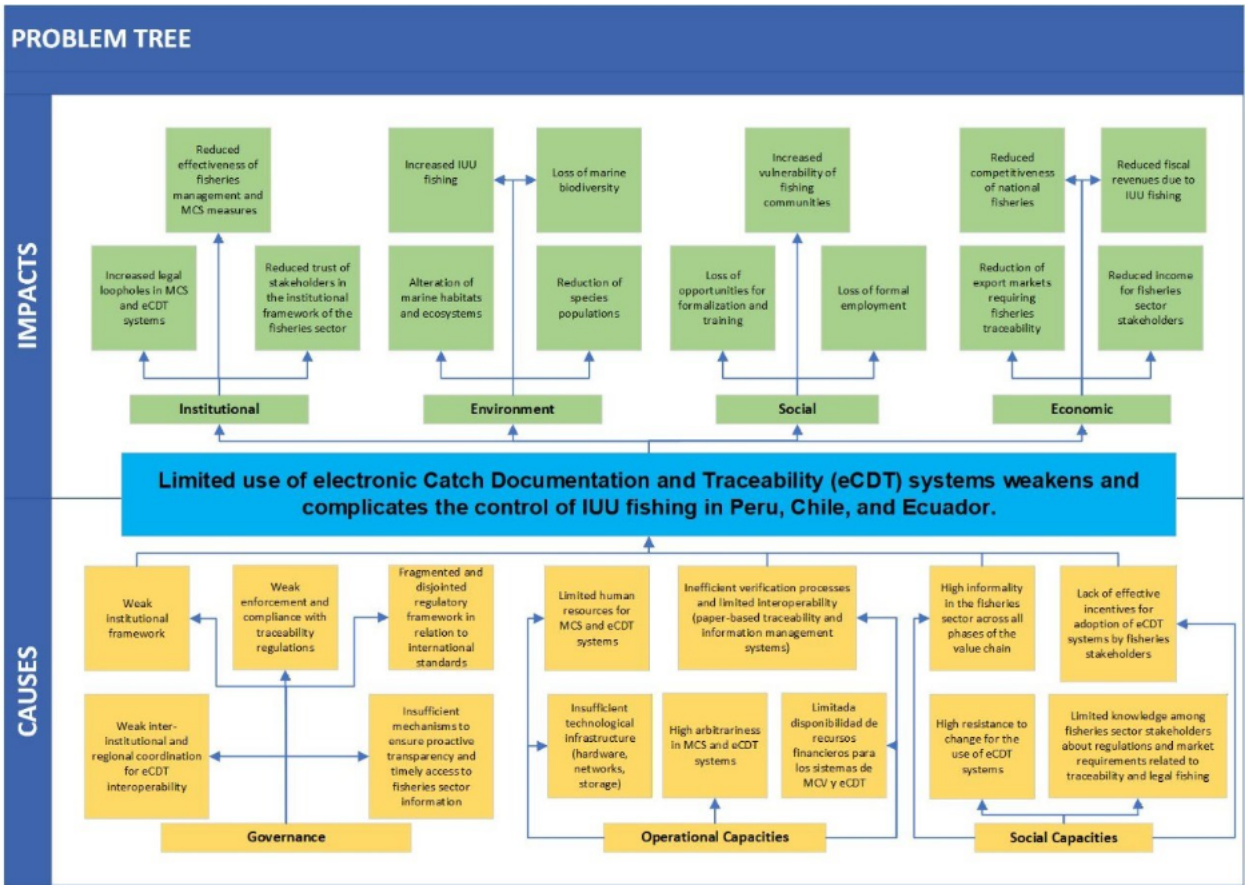


FIGURE 1: PROBLEM TREE

2. Theory of change

The project will accelerate the transition of the fisheries sector in Ecuador, Peru, and Chile toward more transparent, digital, and sustainable management systems, with the aim of significantly reducing illegal, unreported, and unregulated (IUU) fishing and supporting the conservation of transboundary and migratory species in the Humboldt Current ecosystem. The project builds on the progress and lessons already achieved in the three countries but acknowledges the persistence of critical barriers: insufficient technological infrastructure, fragmented regulations, weak interinstitutional and regional coordination, resistance to change, high levels of informality, and gender and youth gaps in access to benefits.

To address these constraints, the project proposes an integrated strategy built around four components: (i) strengthening and coordinating national eCDT systems, (ii) regional cooperation for information exchange and joint actions against IUU fishing, (iii) capacity development across the fisheries value chain, and (iv) monitoring and evaluation. These components operate jointly as part of a systems transformation approach aligned with GEF-8 priorities and activated through five levers: digitalization (L1), interoperability (L2), regional cooperation (L3), capacity development and gender equality (L4), and data transparency (L5). Taken together, these levers drive lasting reforms in governance, technological adoption, and institutional coordination, strengthening traceability, transparency, and the integrity of fisheries value chains. This creates the necessary conditions for more effective, reliable, and legality-oriented management across the three countries.

The proposed Theory of Change is based on a sequential cause-and-effect chain explaining how strengthening regulatory frameworks, developing interoperable eCDT systems, enhancing regional cooperation, and building capacities among public and private actors in the

fisheries sector will generate the enabling conditions necessary to reduce IUU fishing in the Humboldt Current ecosystem and, ultimately, contribute to improving the status of the project's target fisheries. Digitalization and interoperability (L1-L2) are essential to close technological and institutional gaps; regional mechanisms (L3) ensure coordinated fisheries control and the timely exchange of information to combat illegal, unreported, and unregulated fishing; capacity development and gender inclusion (L4) reduce resistance to the transition toward digital systems and foster technology uptake; and greater transparency (L5) strengthens accountability and the quality of data available for fisheries management.

It is important to note that without GEF financing for this project, progress on fisheries traceability in the three countries (Chile, Ecuador, Peru) would remain fragmented, with uneven institutional capacities, limited interoperability, and the absence of a regional interoperable mechanism. The project's additionality is evident in accelerating regulatory improvement, developing interoperable eCDT systems, implementing demonstration pilots (which would otherwise not be financed), and establishing a regional mechanism to address the transboundary challenges of IUU fishing. In this way, the GEF enables a scale of action and cooperation that national efforts alone could not achieve.

In this context, IF countries update and improve their regulatory instruments, protocols, and procedures to strengthen the use of their eCDT systems in critical segments of the value chain, ensuring coherence among fisheries, environment, foreign trade, and port authorities, THEN an institutional foundation will be established that enables the consistent and verifiable adoption of eCDT systems, closing gaps that currently allow catches of unverifiable origin to enter national and international markets.

Complementarily, IF the project integrates, modernizes, and operationalizes national eCDT systems and MCS systems through the digitalization of critical processes, automation of procedures, real-time data verification, and the implementation of pilot projects in prioritized fisheries in each country, THEN national authorities will be able to reliably track the origin, volumes, and movements of catches, increasing their ability to detect discrepancies, prevent document forging block the entry of IUU products at key points of formal trade or export, strengthening operational enforcement procedures and data interoperability. The pilots, by demonstrating the technical, economic, and operational viability of eCDT systems, will provide practical evidence to demonstrate their effectiveness, support their scaling, and reinforce incentives for large and small-scale fisheries actors to improve participation in a more transparent and sustainable fishing activity.

At the regional level, IF a functional mechanism for data exchange, minimum standards for interoperability, and joint verification protocols are established among Chile, Peru, and Ecuador, THEN these countries will be able to identify transboundary patterns of illegality, respond in a coordinated manner, and strengthen traceability in shared supply chains, as well as cooperate in controlling IUU fishing and reinforcing regional fisheries governance to meet international commitments. This regional cooperation is anchored politically in the Regional Action Plan against IUU fishing under the CPPS framework and operationally supported by Red Pesca INDNR as the technical cooperation network, enabling joint enforcement actions in the project's target fisheries and other migratory or internationally traded species. The existence of a coordinated regional mechanism will also allow countries to align their national systems with the requirements of international markets, such as the European Union regulations, the United States SIMP program, the CITES Convention, and recommendations from relevant RFMOs, while facilitating achieving the MSC certification.

Likewise, IF the project promotes capacity building, participation, and communication among authorities, companies, small-scale fisher organizations, women, and youth, through technical assistance, training, tools adapted to different user profiles, pilot implementation, and systematization of good practices, THEN regional learning will be generated, increasing understanding and the ability to manage and use eCDT systems, reducing resistance to technological or administrative change, strengthening social ownership and institutionalization of eCDT system formalization, decreasing existing inclusion gaps, empowering women and youth, and creating more equitable opportunities for access to information, technology, markets, and decision-making.

Once these enabling conditions are consolidated, IF eCDT systems are consistently used at critical control points (capture, landing, first sale, transport, processing, and commercialization), THEN authorities will have improved opportunities to detect and enforce inconsistencies between declared and verified information, increasing the likelihood of sanctioning illegal practices and reducing the profitability of IUU operations as part of a strengthened enforcement system. Improved traceability will reduce the proportion of unverifiable catches and increase the volume of traceable production in the project's target fisheries, contributing to legal compliance, mitigating risks of seizures, rejection in supply chains, commercial losses, and national or international sanctions.

IN THE LONG TERM, and beyond the project's direct scope, IF reductions in IUU fishing are sustained and complemented by evidence-based fisheries management decisions adopted by authorities, THEN the project's target fisheries will be better positioned to recover, stabilize, or maintain sustainable harvest rates. AS A RESULT, the project will contribute to the Global Environmental Benefits associated with the GEF International Waters focal area, including healthier marine ecosystems, greater resilience to climate variability, recovery of priority biological species, more stable supply chains, and strengthened multinational cooperation in managing shared marine resources.

This Theory of Change relies on the following assumptions: external disruptions will not prevent the strengthening and effective implementation of eCDT systems; infrastructure and technology systems are regularly maintained and updated to remain functional; sufficient financial resources will be available to support future infrastructure upgrades and capacity strengthening; governments will collaborate and maintain diplomatic relations to exchange information effectively and combat IUU fishing; international markets will continue to demand certified and traceable products; technical training programs will effectively improve skills to manage and use eCDT systems; and active participation and commitment from the private sector and civil society will be maintained.

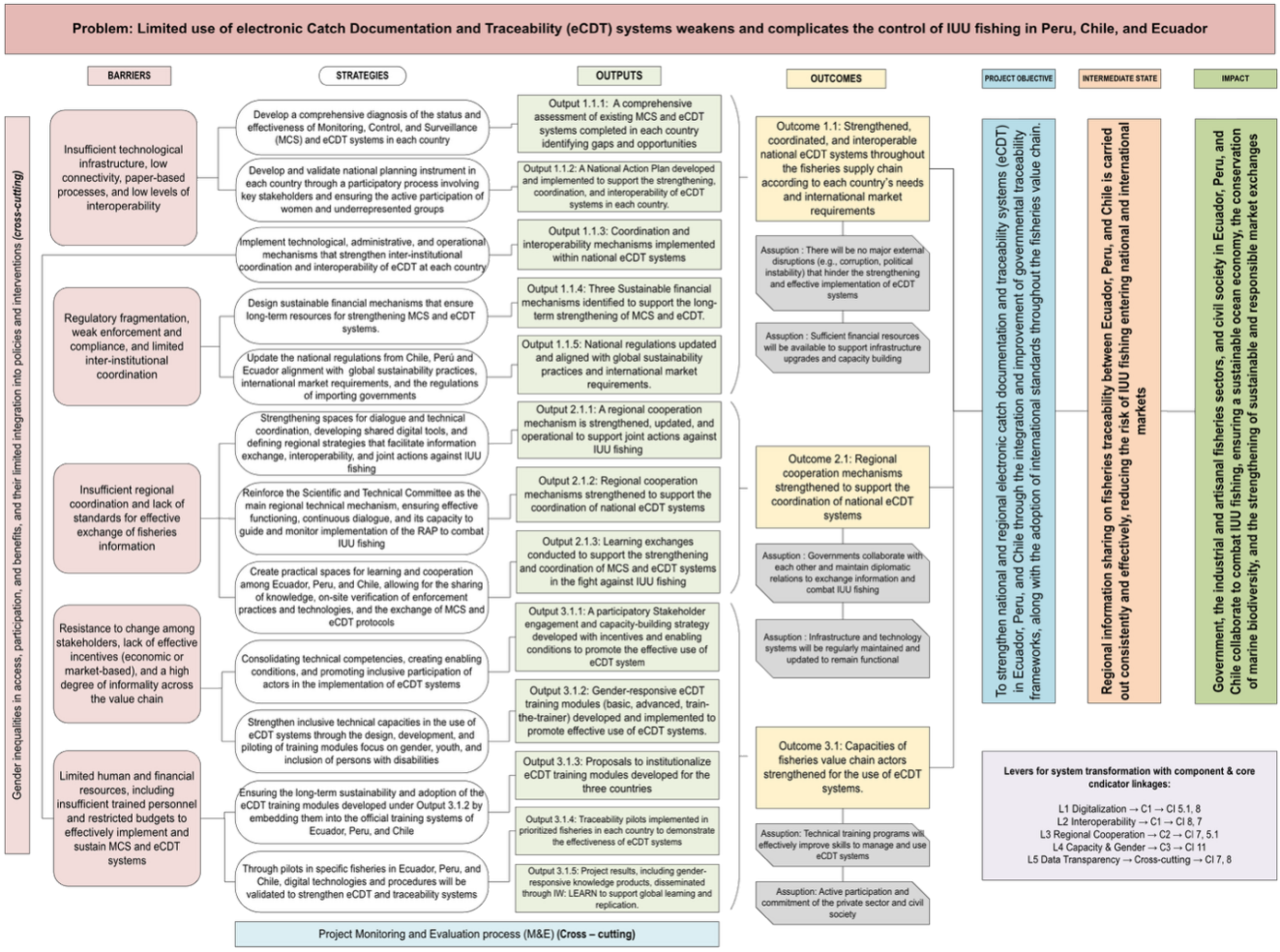


FIGURE 2: THEORY OF CHANGE

3. Project structure description

The objective of the project is to strengthen the effective use of eCDT systems in Ecuador, Peru, and Chile, by improving coordination among governmental traceability schemes, and supporting the adoption of international standards throughout the fisheries value chain. Through this approach, the project aims to advance toward a more transparent, efficient, and evidence-based fisheries management, aligned with multilateral commitments on marine sustainability and responsible trade, and to contribute to the fight against IUU fishing.

As an intermediate result, the three countries are expected to have strengthened, interoperable national eCDT systems, supported by regional cooperation mechanisms capable of ensuring the joint verification of information and the adoption of coordinated measures against IUU fishing. Likewise, the institutional and technical capacity of public and private actors within the fisheries value chain will be strengthened, with the active participation of women and youth, so that the benefits of digitalization and traceability are distributed more equitably.

The expected impact is a substantial reduction of IUU fishing in the Eastern Pacific Ocean, contributing to the conservation of transboundary and migratory species and to the resilience of marine ecosystems associated with the Humboldt Current. Complementarily, the project will generate social benefits by promoting greater formalization and decent employment, competitiveness in the fisheries sector and economic benefits by facilitating access to international markets that demand traceable and sustainable products, and institutional and

regional benefits by consolidating a shared governance mechanism that strengthens cross-border cooperation.

The project builds on collaboration with key private sector and market-oriented actors across the three participating countries, including Transmarina and Eurofish in Ecuador, selected private sector actors in Peru with experience in fisheries traceability and export markets, and relevant Chilean industry stakeholders such as SONAPESCA and AMICHILE. These collaborations will contribute to aligning project outcomes with international standards and market requirements, enhancing the practical relevance and scalability of traceability solutions, while maintaining governmental leadership and regional coordination.

As a whole, these achievements will directly contribute to the global outcomes of GEF-8 in international waters (CI 5.1, CI 7, CI 8, and CI 11), while also supporting progress toward the 2030 Agenda and the UNEP's environmental and social safeguards.

Overall, the PIF project structure is maintained. Some outputs have been refined for more clarity.

Component 1. Strengthening and coordination of national eCDT systems

This component seeks to consolidate and modernize the eCDT systems in Ecuador, Peru, and Chile, ensuring their strengthening, inter-institutional coordination, and alignment with international standards. The actions will include a comprehensive evaluation of the MCS and eCDT systems, the formulation of National Action Plans, the implementation of technological improvements to foster interoperability, the identification of sustainable financial mechanisms, and the regulatory alignment with global market requirements. With these measures, the countries will have reliable, transparent, and coordinated systems capable of reducing their vulnerability to IUU fishing and ensuring more efficient and sustainable fisheries management.

Outcome 1.1: Strengthened, coordinated, and interoperable national eCDT systems throughout the fisheries supply chain according to each country's needs and international market requirements

This outcome aims for Ecuador, Peru, and Chile to have robust digital traceability systems, with improved technological infrastructure, effective mechanisms for interoperability and inter-institutional coordination, and regulatory frameworks aligned with international standards and market demands. Strengthening will allow each country to adapt its system to its national realities, ensuring greater data reliability, transparency in fisheries management, and reduced risk of IUU products entering national and international value chains.

Output 1.1.1: A comprehensive assessment of MCS and eCDT systems completed in each country identifying gaps and opportunities

This output supports the preparation of comprehensive national assessments that analyze the current status MCS and eCDT systems in each country. The assessments will identify technological, regulatory, and institutional gaps, as well as opportunities to strengthen system interoperability, coordination, and effectiveness. The findings will provide the analytical foundation for the development of National Action Plans and the prioritization of strategic investments aimed at improving traceability, strengthening fisheries control, and enhancing compliance with international requirements.

The assessments will also identify country-specific priorities for advancing the implementation of relevant projects to support countries in implementing international agreements including the

Agreement on Port State Measures (PSMA) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This approach will be based on each country's context and their specific needs. Based on preliminary analysis and priorities: Ecuador requires strengthened direct system integration to support digital authorization processes related to for port entry and use authorization under PSMA. In contrast, Peru and Chile will address their priority needs related to gaps through broader MCS and eCDT diagnostics, improved interoperability across institutional systems improvements, and enhanced regional technical exchange.

Likewise, this output will include the following activities:

- **Activity 1.1.1.1** Develop a national diagnosis of the status and effectiveness of MCS and eCDT systems in each country.

The activity will include the mapping of relevant stakeholders, the evaluation of institutional and technological capacities, and the comparison of national systems against international standards. The diagnosis in Ecuador, Peru, and Chile will establish a common baseline to identify gaps, capacity-building needs, and opportunities for coordination among national systems and information flows. The analysis will combine common aspects, gap matrices, administrative processes, data governance, infrastructure, enforcement capacities, advanced analytics (business intelligence), artificial intelligence, big data, and historical data review, with country-specific elements (priority fisheries, administrative flows, current regulations). The result will be solid technical inputs for the design of the National Action Plans (Output 1.1.2) and the comprehensive strengthening of MCS and eCDT systems.

- **Activity 1.1.1.2** Conduct national multi-stakeholder workshops in each country to present and discuss the findings of the MCS and eCDT system assessments.

These workshops will validate results and recommendations through a multi-stakeholder dialogue, ensuring alignment with national priorities and readiness for implementation. They will serve to disseminate findings, strengthen capacities, and gather input to adjust improvement proposals. Participants will include public institutions, the private sector, civil society, and academia, with special attention to the inclusion of women and youth. They will also help build consensus on national priorities, identify critical areas, and agree on opportunities for interoperability and inter-institutional integration.

- **Activity 1.1.1.3** Develop a specialized inter-institutional assessment to analyze and map the macroprocesses of CITES and PSMA in Ecuador, in order to generate clear workflows for future integration into the SIAP.

The activity consists of developing a specialized inter-institutional diagnosis to analyze and map the macroprocesses related to procedures derived from international commitments, specifically from the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and the FAO Port State Measures Agreement (PSMA). This activity is particularly relevant in Ecuador due to regular entry of foreign fishing vessels requesting port services and landing authorizations, especially in the tuna sector. Compliance with PSMA requirements involves multiple competent authorities and complex validation procedures, which currently limit interoperability and creates challenges for efficient inter-institutional coordination and traceability requirements.

The diagnosis will involve institutions directly engaged in these processes, such as the National Customs Service of Ecuador (SENAE), the Ministry of Environment and Energy,, the Ministry of Agriculture, Livestock and Fisheries (MAGP), the Public Research Institute for Aquaculture and Fisheries (IPIAP), the Undersecretariat of Ports and Maritime and River Transport (SPTMF), and the National Directorate of Aquatic Spaces (DIRNEA), since each of them plays a specific role in the validation, authorization and control these procedures.

For CITES, the activity will document and diagram the process flow for the export authorization of fishery products subject to trade restrictions. For PSMA, the process flow for port entry and use of authorization will be documented and diagrammed, including its digital reporting requirements to the FAO Global Information Exchange System (GIES). The expected result is the development of standardized and systematized workflows that support future integration into the Integrated Aquaculture and Fisheries System (SIAP), strengthening interoperability, improving administrative efficiency, and enhancing compliance with international commitments related to traceability and fisheries control.

- **Activity 1.1.1.4** Conduct a diagnosis of control mechanisms to verify the legal origin of mussels along the value chain in Chile and propose digital solutions to strengthen traceability and data collection.

The diagnosis will focus on reviewing critical processes along the value chain of the mussel (*Mytilus chilensis*) in Chile, with special attention to seed collection, its transfer to grow-out centers, and the processing and export stages. Existing gaps in traceability and legal origin control from the first production stage will be analyzed. The objective is to generate technical inputs to strengthen MCS systems, promote digital traceability solutions, and ensure alignment with international standards for sustainability and market access, both domestic and international.

- **Activity 1.1.1.5** Conduct value chain analyses for anchovy and seaweed in Chile, focusing on processing stages and production ratios, in order to generate inputs that strengthen MCS systems.

The activity includes a technical evaluation of the anchovy and seaweed value chains in Chile, focusing on processing stages and production ratios. The study will identify traceability gaps, especially in small pelagics and seaweeds, analyzing how information is recorded and controlled at each stage of the chain. Based on this diagnosis, a technological proposal will be developed, which could include digital registration modules, automated control mechanisms, and interoperability tools with national MCS systems. This aims to strengthen SERNAPESCA's capacity to verify regulatory compliance, improve transparency along the value chain, and reduce the risks of production laundering.

- **Activity 1.1.1.6** Conduct a diagnostic assessment of Peru's national process for issuing, controlling, and registering CITES permits for sharks. The assessment will identify regulatory, technical, and operational gaps and propose improvements for integration with eCDT systems.

This activity will assess how CITES permits and certificates for sharks are issued, verified, and recorded across competent institutions in Peru. The analysis will map the workflow from capture to export, reviewing coordination between PRODUCE, MINAM, SERFOR, SUNAT, and other relevant agencies. As part of this assessment, the activity will also examine the procedures associated with Introduction from the Sea (IFS) authorizations, identifying challenges in documentation flows, reporting, and digital registration.

The outcome will be an updated diagnosis that outlines gaps in Peru's CITES management and proposes concrete measures to align CITES procedures with national eCDT systems, ensuring traceability from capture to export. The recommendations will support interoperability, strengthen verification of legal origin, reduce risks of illegal trade, and improve compliance with international standards for the conservation and oversight of CITES-listed marine species.

Output 1.1.2: A National Action Plan developed and implemented to support the strengthening, coordination, and interoperability of eCDT systems in each country.

The National Action Plan will be developed in each country based on the comprehensive assessments generated under Output 1.1.1. This instrument will serve as a roadmap to strengthen, coordinate, and interoperate eCDT systems, defining short-, medium-, and long-term actions with assigned responsibilities, timelines, and estimated resources. Its construction will be participatory, involving competent authorities, the private sector, and fishing communities to ensure its legitimacy, feasibility, and alignment with international traceability and sustainability standards.

Likewise, this output will include the following activities:

- **Activity 1.1.2.1:** Develop a national planning instrument in each country for its eCDT systems through a participatory process involving key stakeholders and ensuring the active participation of women and underrepresented groups.

The plan will define short-, medium-, and long-term actions, with clearly assigned responsibilities, timelines, and estimated budgets to guide the strengthening, coordination, and interoperability of national eCDT systems.

This activity consists of preparing a national planning instrument (work plan, strategy, or roadmap) in each country through a participatory process with key stakeholders. This instrument will establish short-, medium-, and long-term priority actions to improve institutional coordination, interoperability, and data management of the MCS and eCDT systems. It may also include guidelines for strengthening institutional capacities, incorporating international traceability standards (such as GDST or FLUX), and promoting public-private interoperability mechanisms, ensuring clearly defined responsibilities, timelines, and estimated budgets for its implementation.

- **Activity 1.1.2.2:** Validate national planning instruments and monitoring mechanisms through participatory workshops. These workshops will include value chain actors, public sector representatives, and organizations of women and youth.

This activity involves organizing participatory validation workshops in each country to review, adjust, and approve the national planning instrument developed under Activity 1.1.2.1. These workshops will be carried out through a participatory, transparent, and inclusive process that allows for direct input from actors in the value chain, as well as from the public, private, and civil society sectors. The dialogue generated will facilitate the definition of realistic priorities and strengthen institutional and social ownership of the instrument. The process will conclude with a consensus-based document validated by relevant stakeholders, which will serve as a foundation for guiding the implementation and coordination of national eCDT systems.

- **Activity 1.1.2.3:** Establish an annual monitoring and review mechanism to follow up on the implementation of the national planning instrument. This mechanism will facilitate progress tracking, stakeholder feedback, and continuous improvement of actions and priorities.

This activity establishes the creation and development of an annual monitoring and review mechanism to follow up on the implementation of the national planning instrument. Conceived as a participatory, transparent, and inclusive process, this mechanism will allow for periodic evaluation of progress on prioritized actions, assessment of schedule and responsibility compliance, and incorporation of stakeholder feedback. In this way, it will facilitate the identification of necessary adjustments and promote continuous improvement of actions and priorities to strengthen coordination and interoperability of national eCDT systems.

Output 1.1.3: Coordination and interoperability mechanisms implemented within national eCDT systems.

This output seeks to design and implement technological, administrative, and operational mechanisms that strengthen inter-institutional coordination and interoperability of eCDT systems at the national level. It includes the digitalization of inspection and control processes, the integration of traceability and certification modules (including CITES species), the development of methodological frameworks for electronic monitoring and remote surveillance, as well as the improvement of existing platforms such as SIAP and SITRAPESCA. The objective is to optimize transparency, operational efficiency, and government capacity to verify regulatory compliance and align their systems with international standards.

Likewise, this output will include the following activities:

- **Activity 1.1.3.1:** Strengthen and deploy Peru's online fisheries MCS system that enables real-time digital registration of inspections.

Strengthening the Registration System for the Inspector Program (SIRPI) in Peru by modernizing it into an online platform that allows real-time registration of inspection processes and the automated generation of digital documents (inspection reports, seizures, donations). This improvement seeks to increase transparency, traceability, and operational efficiency within the national MCS system.

- **Activity 1.1.3.2:** Enhance SITRAPESCA functionalities by incorporating product traceability, certificate generation, GDST-compatible web services, and interoperability mechanisms in Peru.

Improvement of the SITRAPESCA system in Peru through the inclusion of new functionalities that enable product traceability, the generation of certificates (including species listed under CITES), the integration of GDST-compliant web services, and the development of interoperability mechanisms, including both private and public systems. This aims to strengthen information management, ensure regulatory compliance, and align the system with international standards on fisheries traceability.

- **Activity 1.1.3.3:** Develop a technological proposal to improve traceability and yield control in the production of small pelagics and seaweeds, identifying gaps in current eCDT systems and integration opportunities to strengthen MCS within Chile's traceability system.

Based on the results of Activity 1.1.1.5, a technological project will be developed in Chile to incorporate improvements in traceability and yield control for small pelagics and seaweeds within the national traceability system. The proposal will aim to close identified gaps, optimize production monitoring, and integrate digital solutions that strengthen MCS and eCDT systems.

- **Activity 1.1.3.4:** Develop a proposal for the use of electronic monitoring systems at landing sites and remote surveillance models within eCDT systems, including technical criteria, operational protocols, and integration options with national traceability platforms in Chile and Peru.

Development of a methodological framework in Chile and Peru for implementing a certification infrastructure at authorized landing points (accreditation sites), focused on certifying landing declarations made by artisanal fishers, as occurs in Chilean fishing coves for the common hake resource. The methodology will incorporate the use of electronic monitoring systems and remote surveillance models, ensuring technical criteria, operational protocols, data governance, security,

transparency, and information analysis, in order to strengthen traceability and reliability of eCDT systems from the first point of control on land.

- **Activity 1.1.3.5:** Systematize and integrate processes, services, and functionalities to improve the PSMA and CITES components within Ecuador's SIAP system.

Based on the diagnoses and recommendations generated under Activity 1.1.1.3, this activity will systematize and integrate processes, services, and functionalities within Ecuador's SIAP system to strengthen the components related to the Port State Measures Agreement (PSMA) and CITES. The objective is to optimize the management of authorizations and certifications, ensure compliance with international regulations, and improve interoperability within the national traceability system.

- **Activity 1.1.3.6:** Implement priority actions identified in the National Action Plans to strengthen coordination and interoperability of eCDT systems, ensuring alignment with national strategies and regional initiatives in each country.

The implementation of priority actions defined in the National Action Plans will allow each country to strengthen and modernize its eCDT systems according to its specific needs. These actions will aim to strengthen inter-institutional coordination, improve interoperability across platforms, and ensure alignment with national strategies and regional commitments. Although specific actions will be defined by each country, such as:

- In the case of Chile, for example, these actions could include the development of a monitoring center to reinforce MCS related to the origin and declaration of artisanal landings, the integration of data intelligence tools connected to the traceability system, the improvement of interoperability between platforms such as SISCOMEX and the national traceability system, and the strengthening of traceability mechanisms aimed at stock verification.
- In Peru, actions may include strengthening the procedures for catch certificates required by international markets to harmonize national and regional services; the digitalization of CITES certificates; and the interconnection of information between the Ministry of Environment and PRODUCE to facilitate traceability and compliance with international CITES requirements.
- In Ecuador actions will be defined based on preliminary diagnostics, prioritizing those that contribute to enhancing the efficiency, transparency, and compatibility of existing eCDT systems, including improving interoperability with SIAP and strengthening administrative and operational processes.

Output 1.1.4: Three Sustainable financial mechanisms identified to support the long-term strengthening of MCS and eCDT systems.

This output aims to identify and design sustainable financial mechanisms that ensure long-term resources for strengthening MCS and eCDT systems. It includes developing a comprehensive financial analysis and validating proposals that combine national and international, public and private sources, while establishing a clear exit strategy and ensuring ownership by considering the institutional and political factors and capacities needed to guarantee the viability and continuity of the investments required to maintain and improve these systems.

Likewise, this output will include the following activities:

- **Activity 1.1.4.1:** Conduct a comprehensive financial analysis of MCS and eCDT systems sustainability, including a review of existing and potential financing sources and mechanisms, both national and international, public and private.

This activity consists of carrying out, in each country, a comprehensive financial analysis of the MCS and eCDT systems, assessing their economic sustainability. This analysis will include the review of existing and potential financing sources and mechanisms, both national and international, public and private, in order to identify opportunities that ensure stable resources for their long-term strengthening.

- **Activity 1.1.4.2:** Design and validate sustainable financing mechanisms for MCS and eCDT systems, based on the findings of the financial analysis.

This activity consists of designing and validating, in each country, sustainable financing mechanisms for MCS and eCDT systems, based on the findings of the financial analysis carried out under Activity 1.1.4.1. These mechanisms will seek to secure stable and long-term resources by aligning with national political and institutional enabling conditions, to maintain and strengthen the operation, coordination, and interoperability of national traceability systems.

Output 1.1.5: National regulations updated and aligned with global sustainability practices and international market requirements.

This output aims to update and harmonize national regulations related to MCS and eCDT systems, ensuring their alignment with global sustainability practices, international market requirements, and the regulations of importing governments.

The primary objective is not to open new markets, but to safeguard and maintain continued access to existing high-value international markets for Chile, Ecuador, and Peru, whose fisheries sectors are strongly export-oriented. In particular, the United States, the European Union, China, and Japan represent the main export destinations for these countries. As traceability, transparency, and sustainability requirements in these markets continue to evolve and become more stringent, maintaining regulatory alignment and operational compliance is essential to avoid trade disruptions, rejection of shipments, or market exclusion.

Similar, this output will contribute to establishing a coherent, up-to-date, and operational regulatory framework that strengthens traceability and transparency throughout the fisheries value chain, supports verification and certification processes, and reinforces long-term competitiveness in these demanding international markets.

Likewise, this output will include the following activities:

- **Activity 1.1.5.1** Conduct an analysis of international market requirements, importing government regulations, and global trends and standards on traceability, transparency, and sustainability, identifying gaps and opportunities to align and strengthen MCS and eCDT systems in each country.

This activity will analyze how the requirements of key destination markets – particularly the United States, the European Union and Asia – as well as the regulations of importing governments and global trends in traceability, transparency, and sustainability, affect the MCS and eCDT systems of each country.

For example, the study will review:

- Regulatory frameworks and import control mechanisms in major destination markets, including (EU catch certification requirements, the U.S. Seafood Import Monitoring Program (SIMP), seafood import monitoring requirements, and traceability provisions applicable in Asian markets. It will also assess relevant international such as China and Japan).

- International reference frameworks and interoperability standards, such as the Global Dialogue on Seafood Traceability (GDST), as well as sustainability.

- Sustainability certification schemes, including the Marine Stewardship Council (MSC) and related standards where applicable).

Based on this analysis, the activity will identify regulatory, technical, and operational gaps that may affect continued compliance with international requirements and potentially undermine market access. Particular attention will be given to emerging expectations regarding such as detailed catch documentation, (including fishing areas at the level of individual sets/hauls), chain-of-custody verification, interoperability of and digital traceability systems, and the capacity of national systems to provide verifiable information on legal origin throughout the value chain.

The results will support the development of recommendations to strengthen regulatory alignment, improve system interoperability, and enhance the reliability and transparency of traceability information, contributing to the long-term competitiveness and credibility of fisheries exports from the three countries in increasingly demanding international.

- **Activity 1.1.5.2** Establish periodic participatory mechanisms in each country to review and update policies and regulations related to MCS and eCDT systems, in line with national needs. These mechanisms will incorporate inputs from key stakeholders and ensure alignment with international market requirements, importing government regulations, and global trends and standards on traceability, transparency, and sustainability.

This activity will establish structured and periodic review mechanisms in each country to support the continuous adaptation and improvement of regulatory frameworks related to MCS and eCDT systems. These mechanisms will help ensure that national regulatory frameworks remain responsive to evolving international requirements while reflecting country-specific institutional contexts.

The process will be participatory and inclusive, incorporating key stakeholders across the fisheries value chain, including government authorities, industry representatives, exporters, and technical experts. Existing governance platforms will be leveraged to ensure legitimacy and institutional continuity, such as institutionalized dialogue platforms in Chile and fishery dialogue tables in Ecuador.

For example, through these mechanisms, will ensure that regulatory adjustments will:

- Maintain alignment-aligned with evolving requirements in key export markets, including the United States, the European Union, China, and Japan.
- Reflect emerging standards and best practices related to traceability, transparency, and sustainability.
- Ensure technical feasibility and operational applicability across different segments of the fisheries value chain; and
- Contribute to maintaining export eligibility, reducing risks of trade disruptions, and strengthening confidence in the legal origin of fishery products.

Through this structured and participatory approach, regulatory improvements will be institutionalized and adaptive over time, supporting the long-term sustainability, resilience, and competitiveness of the fisheries sectors of Chile, Ecuador, and Peru in their main export markets. Likewise, this periodic

process will be informed by pilot implementation under Output 3.1.4, which will provide inputs based on practical experience.

Component 2: Strengthening regional cooperation to improve eCDT systems and support joint actions against IUU fishing

During the PPG phase, additional institutional analysis confirmed that the CPPS had already adopted a Regional Action Plan to Combat IUU Fishing, which provides a formal intergovernmental framework for regional cooperation. At PIF stage, the project had envisaged the establishment of a tri-national cooperation agreement and a dedicated regional approach for sharing eCDT data. Based on the PPG findings, the design was refined to avoid duplicating mechanisms that already exist. Instead, the project focuses on strengthening and operationalizing those existing regional mechanisms through the Red Pesca INDNR platform for structured information exchange, interoperability, and joint verification, and through the CPPS Regional Action Plan and its Scientific and Technical Committee for coordinated political and technical follow-up. This refined approach maintains the project's original regional ambition while ensuring that project resources are directed to practical implementation and measurable regional cooperation outcomes.

This component strengthens regional cooperation as a central element in addressing IUU fishing, by enhancing coordination and by strengthening existing coordination mechanisms among Ecuador, Chile and Peru. The project builds on existing regional structures, particularly the Permanent Commission for the South Pacific (CPPS), which provides the intergovernmental platform for regional policy dialogue and Red Pesca INDNR, which facilitates technical collaboration and operational information exchange among participating countries.

The project will strengthen the Red Pesca INDNR as a practical mechanism for structured information exchange, digital interoperability, and alignment of traceability approaches across countries. In parallel, it will support the Scientific and Technical Committee established under the CPPS Regional Action Plan to Combat IUU Fishing, reinforcing its role in promoting coordinated technical inputs and regional follow-up actions.

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The project will also establish periodic review mechanisms in each country to adapt and update regulatory frameworks related to MCS and eCDT systems, according to national needs and previously identified requirements. The process will be carried out in a participatory manner, incorporating actors from the supply chain and key users, leveraging existing governance spaces such as the institutionalized dialogue platforms in Chile or the fishery dialogue tables in Ecuador. These mechanisms will help ensure that regulatory adjustments are built on recognized and legitimate consultation processes. To this end, strengthening of coordination mechanisms, digital platforms, and joint work strategies will be promoted, enabling articulation with global initiatives and the development of shared capacities to ensure more effective, transparent, and internationally aligned responses to IUU fishing.

Outcome 2.1: Regional cooperation mechanisms are strengthened to support the coordination of national eCDT systems

This outcome strengthens regional cooperation frameworks that enable Ecuador, Peru, and Chile to better coordinate the development and operation of their national eCDT systems. It focuses on reinforcing the Red Pesca INDNR as a technical platform for structured information exchange, digital coordination, and operational collaboration, while supporting the Regional Action Plan to Combat IUU Fishing under the framework of the CPPS as the intergovernmental governance space for legal and policy alignment.

Through these complementary mechanisms, the project will strengthen enhancing technical coordination, promote interoperability, and facilitate the development of shared tools~~,~~ and regional approaches that support more consistent traceability practices. Strengthened regional articulation will enable countries to exchange information more efficiently, address common technical challenges, and support coordinated actions to combat IUU fishing. Joint actions can include protocols, agreements, joint operations (e.g. GALAPEX), information exchanges, data validation, among others.

By situating national eCDT efforts within a regional cooperation framework, this outcome contributes to improving transparency, strengthening traceability across jurisdictions, and supporting compliance with international standards and market requirements.

Output 2.1.1: Regional cooperation mechanism is strengthened, updated, and operational to support joint actions against IUU fishing

This output focuses on consolidating and modernizing the Red Pesca INDNR platform, as the existing a regional cooperation network among Ecuador, Peru, and Chile, designed to facilitate information exchange, coordination, and the implementation of joint actions against illegal, unreported, and unregulated (IUU) fishing[7]. The network will be updated with new technical functionalities, work protocols, and inter-institutional coordination mechanisms, ensuring its continuous operability. Once strengthened, this platform will enable the three countries to verify critical information, coordinate collective responses, and promote transparency in regional fisheries management, thereby reducing the risk of IUU-caught fish entering national and international markets.

Likewise, this output will include the following activities:

- **Activity 2.1.1.1:** Provide operational support to the coordination mechanism and national focal points of the Red Pesca INDNR to ensure coordination, the organization of virtual/in-person meetings, and the handling of information requests among countries.

This activity will provide technical and logistical support, as well as resources and specialized assistance, to the coordination mechanism (which has been hosted since its inception within PRODUCE) and focal points of Ecuador, Peru, and Chile to strengthen the daily operation of the information exchange network. It supports regular meetings (virtual and in-person), defining clear procedures, and providing timely responses to information requests. This will consolidate the network's role as a reliable and operational channel for regional cooperation against IUU fishing.

- **Activity 2.1.1.2:** Improve the Red Pesca INDNR digital platform by incorporating new modules and functionalities.

This activity will modernize the technological platform of the regional network through the incorporation of new information exchange modules, including tools for validating fisheries data, vessel registries, and joint verification processes among the three countries, aligned with international traceability standards. The upgraded platform will support structured data sharing, improve interoperability, and strengthen technical decision-making.

- **Activity 2.1.1.3:** Design and implement a regional work strategy defining common priorities and coordination arrangements.

This activity will support a comprehensive regional strategy will be developed and implemented to align Ecuador, Peru, and Chile around common objectives and joint actions against IUU fishing. The Strategy will define capacity-building needs, priority action lines, and coordination arrangements with other regional and global initiatives to avoid duplication and promote complementarity. This roadmap will guide the functioning of the network and enhance the consistency of regional actions.

Output 2.1.2: Regional Action Plan against IUU fishing strengthened to ensure effective implementation and coordinated regional action

This output focuses on strengthening the CPPS Regional Action Plan to Combat Illegal, Unreported, and Unregulated Fishing in the Southeast Pacific (CPPS, 2022) under the framework of CPPS by enhancing its implementation framework and operational mechanisms. The project will support the development of clearer procedures, structured coordination tools, harmonized technical standards, and defined follow-up arrangements necessary to translate the Plan's commitments into sustained and measurable regional action.

Coordination will be reinforced through the Scientific and Technical Committee established under the Plan, which will serve as the primary platform for structured technical dialogue, alignment of priorities, and follow-up of agreed actions among Ecuador, Peru, and Chile. Through this mechanism, the project will promote the adoption of standardized procedures, regional data criteria, and communication protocols that improve consistency, interoperability, and coordinated MCS responses across the three countries.

During the transition from PIF to CEO Endorsement, additional analysis conducted in the PPG phase confirmed that CPPS had already adopted a Regional Action Plan against IUU fishing, providing a formal regional framework for cooperation. In light of this, the project design was refined to focus on strengthening this existing regional framework and advancing the development of its implementation mechanisms to ensure it operates as an effective and results-oriented coordination platform. The substantive objective remains unchanged: to consolidate a regional political and technical coordination mechanism that is fully functional, operational, and capable of delivering sustained commitments and measurable impact in addressing IUU fishing.

Likewise, this output will include the following activities:

- **Activity 2.1.2.1:** Provide technical and organizational support coordination mechanisms under the CPPS Regional Action Plan against IUU fishing.

This activity will provide technical, organizational, and logistical support to ensure that the Committee operates effectively as the main coordination mechanism under the Plan. It will support structured meetings, preparation of technical inputs, follow-up of agreed actions, and consolidation of coordinated recommendations among Ecuador, Peru, and Chile, in line with the priorities and work plan of the Regional Action Plan.

- **Activity 2.1.2.2:** Support the implementation of Strategic Axis 2 of the Regional Action Plan to Combat Illegal, Unreported and Unregulated Fishing in the Southeast Pacific.

This activity will support the implementation of Strategic Axis 2, which includes the harmonization of regional data standards, the adoption of common technical criteria, the strengthening of monitoring practices, and the improvement of structured information exchange among Ecuador, Peru, and Chile. It will facilitate the development of common guidelines and interoperable procedures to support joint verification processes, faster information exchange, and coordinated enforcement responses among Monitoring, Control, and Surveillance (MCS) authorities across Ecuador, Peru, and Chile.

As part of this effort, the activity will also support the establishment and formalization of a regional communication protocol for MCS authorities, including standardized operational procedures and practical mechanisms for timely cooperation and information exchange. Together, these measures will reinforce the implementation mechanisms of the Regional Action Plan and enable coordinated and measurable regional action against IUU fishing.

Output 2.1.3: Learning exchange conducted to support the strengthening and coordination of MCS and eCDT systems in the fight against IUU fishing

This output aims to create practical spaces for learning and cooperation among Ecuador, Peru, and Chile, allowing for the sharing of knowledge, on-site verification of enforcement practices and technologies, and the exchange of MCS and eCDT protocols. Through internships, technical exchanges, and regional workshops, the capacities of national institutions will be strengthened, and regional coordination against IUU fishing will be consolidated.

Likewise, this output will include the following activities:

- **Activity 2.1.3.1:** Organize regional internships and technical exchanges among fisheries inspectors and MCS personnel, allowing participants to observe and verify enforcement practices, technologies, and operational procedures used to combat IUU fishing.

Regional internships and technical exchanges will be organized among fisheries inspectors and enforcement officers from the three countries. These activities will allow participants to directly observe and verify control practices, technologies, and operational procedures used to combat IUU fishing, as well as to learn about pilot initiatives and technological improvements being implemented in each country. Three internships are planned throughout the project (one in each country), with the participation of inspection and enforcement coordinators. Subsequently, national workshops will be organized so that the personnel who attended the internships can share the knowledge gained with the rest of their teams.

- **Activity 2.1.3.2:** Conduct regional cooperation workshops and technical coordination sessions focused on improving the development and implementation of eCDT systems.

Regional cooperation workshops and technical coordination sessions will be held, focused on the development and implementation of eCDT systems. These spaces will serve as a collaborative platform for countries to exchange lessons learned, align methodologies, and design joint solutions to address implementation challenges. By fostering dialogue and cooperation, the activity will help harmonize protocols, reduce duplication, and accelerate regional progress toward more transparent and traceable fisheries.

As part of the regional cooperation workshops, two regional gatherings will be organized for women's groups involved in the three countries' target fisheries. The meetings aim to facilitate the

sharing of best practices and critical reflection on how to enhance the sustainability of traceability systems through a gender lens. Leveraging the perspectives of women and fishing families, these events will strengthen women's traceability networks and generate valuable lessons to inform the design of effective incentives for fisheries traceability.

Component 3: Strengthening the capacities of actors throughout the entire fisheries value chain.

This component aims to ensure that the different actors in the value chain, from the artisanal and industrial sectors to public and private institutions have the capacities, knowledge, and incentives to effectively adopt and use eCDT systems in each country. Strengthening these capacities is essential to ensure traceability, transparency, and sustainability in the fisheries prioritized under this project.

Outcome 3.1: Capacities of fisheries value chain actors strengthened for the use of eCDT systems.

This outcome focuses on consolidating technical competencies, creating enabling conditions, and promoting inclusive participation of actors in the implementation of eCDT systems. Most importantly, it seeks to reduce resistance to change and overcome generational barriers faced by adult and older fishers in adopting digital tools. In this way, greater ownership of the systems, improved regulatory compliance, and a smoother transition toward responsible and transparent fishing practices will be achieved.

Output 3.1.1: A participatory Stakeholder engagement and capacity-building strategy developed with incentives and enabling conditions to promote the effective use of eCDT systems and the adoption of international standards.

This output involves designing a comprehensive engagement strategy for key actors in the value chain that combines economic, regulatory, and market incentives with enabling conditions such as clear cooperation frameworks and access to digital tools. The strategy will serve as a guide to motivate eCDT adoption throughout the value chain in the three countries, ensuring that artisanal and industrial fishers, processors, exporters, and authorities all find tangible benefits in its implementation.

For this output, the following activities will be carried out:

- **Activity 3.1.1.1:** Conduct a diagnosis and mapping of actors along the fisheries value chain to identify capacities, roles, interests, and barriers to using eCDT systems, with a specific focus on the participation of women, youth, and underrepresented groups, including an assessment of training needs and preferred delivery modalities (in-person, practical, Training of Trainers (ToT), blended).

A mapping and diagnosis of actors along the fisheries value chain will be conducted to identify their existing capacities, roles, interests, and main barriers to using eCDT systems. This analysis will include an assessment of digital literacy levels and technological access gaps among different sectors. Likewise, it will place particular emphasis on the participation of women, youth, and traditionally underrepresented groups to ensure that the resulting strategy is inclusive and equitable.

- **Activity 3.1.1.2:** Design a stakeholder engagement strategy that combines incentives with enabling conditions for behavior change and support the sustained adoption of eCDT systems. The strategy will also aim

to create motivation, reduce resistance, and promote the inclusive participation of women, youth, and vulnerable communities.

A stakeholder engagement strategy will be designed combining economic, regulatory, and market incentives with enabling conditions such as digital infrastructure, technical support, and administrative simplification. It will consider the risk of technological exclusion by evaluating and proposing viable reporting mechanisms for marginalized fishers who currently lack the knowledge and/or means to access or use digital tools. This strategy will aim to generate sustainable behavior change by reducing resistance to the use of digital tools and promoting the inclusive participation of women, youth, and vulnerable communities in eCDT systems.

Output 3.1.2: Gender-responsive eCDT training modules (basic, advanced, train-the-trainer) developed and implemented to promote effective use of eCDT systems.

This output aims to strengthen inclusive technical capacities in the use of eCDT systems through the design, development, piloting and implementation of training modules at three levels: basic, advanced, and train-the-trainers. The content will be tailored to different user profiles and developed with a focus on gender, youth, and inclusion of persons with disabilities, ensuring equal access to training for at least 10,500 value chain actors.

Beyond the pilot phase, the project will support the delivery of training of at least 10,500 value chain actors across Ecuador, Peru, and Chile during project implementation through national workshops, training-of-trainers cascades, and replication by national institutions, fisheries agencies, and partner organizations.

For this output, the following activities will be carried out:

- **Activity 3.1.2.1:** Develop eCDT training modules (basic, advanced, and train-the-trainers), adapted to different user profiles and designed with gender and inclusion considerations.

Training modules on eCDT will be developed with a focus on gender, youth, and inclusion of persons with disabilities, across three levels (basic, advanced, and train-the-trainers), and adapted to different user profiles. These modules will ensure accessibility for women, youth, persons with disabilities, and other underrepresented groups, thus promoting equity and inclusion in the development of technical capacities.

- **Activity 3.1.2.2:** Develop guidance materials and support resources to enable replication and scaling.

Guidance materials and support resources, such as manuals, digital tools, and case studies, will be developed to accompany the training modules. These materials will be designed with accessibility and inclusion criteria, ensuring they can also be used by people with disabilities, and will facilitate the replication and scaling of the training in different contexts.

These materials will support the **implementation of large-scale training**, enable local trainers to replicate sessions, and ensure accessibility for women and underrepresented groups.

- **Activity 3.1.2.3:** Pilot the training modules with diverse stakeholder groups across the fisheries sector, using integrated feedback and iterative adjustments. This process will strengthen technical capacity and foster behavioral change in the adoption of eCDT systems.

The training modules will be piloted in the fisheries prioritized under this project by the three countries, incorporating feedback and iterative adjustments. The activity will involve diverse

stakeholder groups, including women, youth, and persons with disabilities, to strengthen technical capacities and foster behavioral changes in the adoption of eCDT systems.

The pilot phase will validate training content and delivery modalities, after which the modules will be rolled out more broadly through country-level workshops and train-the-trainer replication processes.

Output 3.1.3: Proposal to institutionalize eCDT training modules developed for the three countries.

This output aims to ensure the sustainability and permanence of the eCDT training modules (basic, advanced, and train-the-trainers) developed under Output 3.1.2 by integrating them into the national training systems of Ecuador, Peru, and Chile. The institutionalization proposal will consider legal, administrative, pedagogical, and governance aspects, ensuring that the training remains active beyond the project's duration and reaches women, youth, persons with disabilities, and other underrepresented groups in the fisheries sector inclusively.

For this output, the following activities will be carried out:

- **Activity 3.1.3.1**: Conduct an institutional analysis in Ecuador, Peru, and Chile to identify opportunities, gaps, and mechanisms for integrating of eCDT training modules into existing national training structures. This will include technical institutes, government programs, and educational platforms linked to the fisheries sector.

The institutionalization of the eCDT training modules developed under Activity 3.1.2.1 will be promoted within schools, institutes, and training centers linked to the fisheries sector in Ecuador, Peru, and Chile. This action will ensure that the content designed with a focus on gender, youth, and inclusion of persons with disabilities is permanently integrated into educational and professional training programs. In this way, accessibility and continuity of training for women, youth, persons with disabilities, and other underrepresented groups will be guaranteed, consolidating a sustainable base of technical capacities for the adoption and improvement of eCDT systems in the region.

- **Activity 3.1.3.2**: Engage national competent authorities, educational institutions, and fisheries agencies to explore and agree on pathways for institutionalizing the eCDT training modules.

This activity will involve the national competent authorities, educational institutions, and fisheries agencies of the three countries to explore and agree on pathways for institutionalizing the eCDT training modules. Consultations, technical meetings, and alignment processes will be conducted with national capacity-building priorities and existing regulatory frameworks. The purpose is to ensure that the developed modules are formally and sustainably integrated into the national training and capacity-building systems of the fisheries sector.

- **Activity 3.1.3.3**: Develop a proposal to institutionalize eCDT training mechanisms within relevant national structures in Ecuador, Peru, and Chile.

A proposal will be developed to institutionalize eCDT training mechanisms within the national structures of Ecuador, Peru, and Chile. The proposal will define technical content, delivery modalities, governance arrangements, and sustainability criteria, based on the pilot experiences from Output 3.1.2. The process will be carried out in consultation with key stakeholders, ensuring the incorporation of feedback and alignment with national priorities to guarantee its long-term integration into the fisheries sector's capacity-building systems.

Output 3.1.4: Traceability pilots implemented in prioritized fisheries in each country to demonstrate the effectiveness of eCDT systems.

This output aims to test, in real-world contexts, innovative traceability and control solutions that strengthen transparency across the fisheries value chain. Through pilots in specific fisheries in Ecuador, Peru, and Chile, digital technologies and procedures will be validated to improve data collection, certification, and resource monitoring. The results of these pilots will serve as a basis to scale up and replicate successful practices across the region.

For this output, the following activities will be carried out:

- **Activity 3.1.4.1**: Design and implement a pilot to integrate logbook data into Ecuador's SIAP system for purse seine, longline, and titi shrimp fisheries. The pilot will include the digitalization of observer forms and the use of onboard electronic monitoring systems with cameras.

This pilot will be implemented in Ecuador's purse seine, longline, and titi shrimp fleets to modernize and strengthen traceability and control mechanisms. The initiative includes: (i) Design and installation of electronic logbooks (fishing daily records) on vessels from the three prioritized fleets, enabling captains to make digital declarations automatically integrated into SIAP, in accordance with the requirements established in the LODAP and its regulations; (ii) Implementation of an Electronic Monitoring (EM) system through the installation of cameras onboard, allowing real-time verification of fishing operations and validation of consistency between logbook data and recorded footage; (iii) Digitalization of observer program forms from the Undersecretariat of Fisheries Resources, particularly for the longline and titi shrimp fisheries, to complement control systems with biological information on captured species.

Together, these actions will test a comprehensive technological traceability model that combines logbook data, electronic monitoring, and observer records. This will ensure more accurate, verifiable, and timely information, strengthening transparency in landing operations and improving the country's fisheries management capacity.

- **Activity 3.1.4.2:** Design and implement a pilot in Peru to improve traceability control and quota monitoring through data analytics, integrating smart cameras at landing sites, online inspection systems, and modernization of SITRAPESCA.

The pilot in Peru aims to strengthen traceability control and quota monitoring through an integrated technological approach. It will combine advanced data analytics tools with the installation of smart cameras at strategic landing points, the implementation of an online inspection system with real-time information, and the modernization of the SITRAPESCA platform by expanding its coverage and functionalities. This pilot will validate an innovative fisheries management model, ensuring that generated information is reliable, interoperable, and timely. It will also be effectively used by authorities, inspectors, and other value chain actors, contributing to quota compliance and greater transparency in the sector.

- **Activity 3.1.4.3:** Design and implement an automated certification system for common hake landings using cameras at authorized landing sites.

The pilot seeks to design and implement an automated certification system for common hake landings in Chile, combining weighing equipment at authorized landing sites with cameras that electronically record and certify the process. This mechanism will allow for official and remote validation of landed volumes, reducing administrative time and costs while ensuring transparency and objectivity in information. The initiative aligns with current regulations as an alternative to in-person certification and has potential for scaling up to other fisheries.

- **Activity 3.1.4.4**: Design and implement a pilot to improve yield monitoring in the anchovy and seaweed value chains.

This pilot seeks to improve the accuracy of yield recording and validation in processing plants handling anchovy and seaweed. Currently, information on actual stocks and production conversions is limited and based on voluntary declarations. The initiative will test digital tools and standardized procedures to capture data on input volumes, final products, and losses, ensuring traceability and consistency in reporting. These data will be integrated into the eCDT system, enabling authorities and private actors to access more reliable and verifiable information for fisheries management. The pilot will provide evidence to reduce traceability gaps in processing plants, with potential replication in other fisheries and value chains.

- **Activity 3.1.4.5**: Design and implement a comprehensive traceability pilot for the mussel (chorito) value chain in Chile.

Currently, no full value chain traceability system exists for “choritos, as only the growth phase is traced but the seed collection phase is not covered. This pilot will test a comprehensive traceability framework covering the entire production chain, integrating seed collection into the current traceability mechanisms. The activity includes: (i) Designing and implementing digital registration and verification mechanisms that ensure legality, sustainability, and product transparency from seed collection; (ii) Including both large and small producers and cooperatives, supporting their capacity to comply with international traceability standards and access domestic or international markets; (iii) Field testing the functionalities of the traceability system developed by SERNAPESCA (Component 1), validating its direct application in the mussel production chain.

The pilot will generate reliable information from the source, strengthen the sector’s competitiveness, and generate lessons for potential scaling to other bivalves or aquatic organisms in the region.

- **Activity 3.1.4.6:** Systematize and share pilot lessons through learning exchanges and regionals knowledge products, including dedicated spaces for women and youth, and disseminate findings.

This activity aims to compile, analyze, and disseminate lessons learned from the implementation of the traceability pilots in Ecuador, Peru, and Chile. It will organize learning exchanges among project stakeholders, including government agencies, industry representatives, community organizations, and technical partners to promote open dialogue and cross-country learning. The activity will produce knowledge of products such as case studies, technical briefs, and methodological guides that summarize good practices, challenges, and key factors for replication and scaling. Dedicated spaces for women and youth will be included to encourage their active participation and promote intergenerational knowledge exchange.

These materials will support capacity strengthening and inform the refinement of traceability models tested in the pilots. Dissemination will be carried out through workshops and the project’s regional platform, ensuring wide access and usability of the results.

Output 3.1.5: Project results, including gender-responsive knowledge products, disseminated through IW: LEARN to support global learning and replication.

This output ensures the active participation of the project in IW: LEARN and the dissemination of documented project results at the global level. It will support the preparation and sharing of gender-responsive knowledge products, including reports, experience notes, technical briefs, training materials, and communication pieces that reflect the lessons generated across all project components.

These products will be shared through IW:LEARN to contribute to global learning, strengthen collaboration with other GEF International Waters initiatives, and promote the replication of successful practices. Activities will also include participation in IW: LEARN exchanges and events, enhancing visibility and mutual learning across the GEF International Waters portfolio.

- **Activity 3.1.5.1:** Prepare and publish IW: LEARN-compliant knowledge products based on project results.

This activity will generate gender-responsive knowledge products—including experience notes, technical briefs, manuals, and communication materials—that synthesize good practices, lessons learned, and replicable approaches developed across the project. These products will follow IW: LEARN guidelines and will be uploaded to the platform to support global knowledge exchange.

- **Activity 3.1.5.2:** Participate in IW: LEARN for global and regional events, including the International Waters Conference.

This activity ensures the project's regular participation in IW:LEARN learning events, webinars, and workshops, as well as attendance at at least one International Waters Conference. Through such engagement, the project will share its results, learn from peer initiatives, and strengthen linkages within the GEF International Waters community.

- **Activity 3.1.5.3:** Disseminate project results and gender-responsive knowledge products through the IW: LEARN communication channels.

This activity involves uploading project deliverables—such as reports, training materials, case studies, and communication products—to the IW: LEARN communication channels , including its website, newsletters, and thematic portals, ensuring global visibility of project results.

- **Activity 3.1.5.4:** Coordinate with the IW:LEARN coordination team and UNEP knowledge management teams to align project learning and reporting with IW portfolio knowledge exchange.

This activity establishes coordination with UNEP knowledge management teams and IW:LEARN to ensure compliance with IW:LEARN standards, consistent reporting, and alignment of project knowledge and communication products with IW:LEARN templates, metadata requirements, and dissemination protocols.

Component 4: Project Monitoring and Evaluation (M&E)

This component ensures compliance with the GEF Monitoring and Evaluation Policy through a detailed plan with SMART indicators, clear targets, and a specific budget (Annex C). Its implementation will be guided by an expert (specialist) in monitoring and evaluation and supervised by the Project Steering Committee and UNEP, with WWF providing day-to-day monitoring support. The plan will be reviewed at the start of the project to clarify the roles and responsibilities of all actors, ensuring efficient and timely implementation by the Project Coordination Unit (PCU), with periodic evaluation processes that also include the review of the Gender Action Plan and gender mainstreaming dimensions.

Outcome 4.1: Effective and timely project monitoring and evaluation

The implementation of monitoring and evaluation processes aligned with GEF and UNEP policies will ensure efficient and timely tracking of project performance, incorporating gender-disaggregated data, independent evaluations, and information analysis to improve implementation, accountability, and institutional learning.

Output 4.1.1: Documented monitoring and reporting of project performance

A systematic process of monitoring and reporting will be established throughout the entire project implementation cycle to ensure successful delivery and continuous improvement of management. This process includes the collection and analysis of sex-disaggregated data to monitor progress in gender-related results.

Activities include the Inception Workshop and Report, baseline, midterm, and final monitoring of GEF Core Indicators, as well as the preparation of periodic reports: Project Implementation Review (PIR), annual co-financing reports, quarterly and semi-annual progress and financial reports, in addition to monitoring environmental and social safeguard risks and visits to pilot sites. WWF will be responsible for delivering the main reports (Inception Report, PIR, quarterly and semi-annual reports, and Final Operational Closure Report), which will be validated by UNEP and reviewed by the Steering Committee to ensure transparency, accountability, and the incorporation of lessons learned.

- **Output 4.1.2:** Independent evaluations and information analysis

  Independent evaluations will be carried out to measure the project's progress, success, and effectiveness, ensuring that resulting recommendations are reflected in implementation. These evaluations will pay special attention to gender impacts, the effectiveness of gender mainstreaming efforts, and lessons learned. In compliance with GEF and UNEP policies, the project will include a Mid-Term Review/Evaluation and a Final Evaluation, which may be led by management or by a specialized consultant.

  These evaluations will be conducted under a participatory approach, including consultations with key stakeholders and the Project Steering Committee, and will incorporate response and follow-up plans for the recommendations. Reports will be made public and subject to quality assurance processes, using standard performance criteria and a six-point rating scale.

  Finally, the PCU will follow up on the implementation of recommendations through an Implementation Plan, ensuring accountability, institutional learning, and the dissemination of lessons to strengthen future interventions.

4. Communication plan and knowledge management

The Communication Plan and Knowledge Management (KM) Plan are presented in Appendix 9. Communication and KM are strategic implementation tools that support learning, behavioral change, and sustainability across project components, particularly the traceability pilots implemented under Component 3 and the regional cooperation and learning mechanisms established under Component 2. The integrated Communication and KM Plan will ensure coherence among participating countries, facilitate the adoption of innovative solutions, and guarantee that results extend beyond the project's duration.

The plan is structured around three priorities: (i) generation, systematization, and dissemination of knowledge through the documentation of experiences, good practices, lessons learned, and results emerging from national traceability pilots and capacity-building activities under Component 3; (ii) effective communication of results and impacts, translating technical outcomes into targeted messages for policy makers at

national, regional, and global levels; and (iii) regional and global knowledge exchange, leveraging Component 2 cooperation mechanisms and global platforms such as IW:LEARN to showcase the project's experience and promote South-South cooperation. All activities will be implemented under a cross-cutting approach that promotes gender equality, inclusive participation, and the empowerment of women and youth.

The main objectives are:

- Develop sustainable communication tools and materials that accompany project implementation and remain in use beyond its closure. This will include participatory communication kits, digital campaigns, and practical manuals for fishers, coastal communities, and consumers.
- Promote knowledge exchange and dissemination through multi-stakeholder workshops, South-South internships, public-private communities of practice, and case studies, ensuring that information circulates in an accessible and inclusive manner.
- Ensure the long-term sustainability and accessibility of information and resources generated by institutionalizing KM products within national agencies and ensuring their integration into IW: LEARN and other global platforms.

The target audience includes (i) national governments and regulatory agencies; (ii) the private sector, industrial, artisanal, export, and retail; (iii) coastal communities and consumers; (iv) academic institutions and research centers; and (v) organized civil society. Each group requires clear and tailored information to strengthen regulations, meet international standards, promote responsible practices, or amplify accountability.

The strategies will combine participatory communication (campaigns, fairs, audiovisual narratives) with active knowledge management (digital repositories, case studies, technical exchanges). Digitalization will be a central axis: virtual newsletters, online self-learning modules, audiovisual materials, and social media will enable reaching diverse audiences efficiently and sustainably. In parallel, all relevant information will be systematically integrated into global platforms such as IW: LEARN and GPML, maximizing international visibility and the replicability of experiences.

- To ensure implementation, the project will allocate financial resources and mobilize three key specialists: a capacity and KM expert, a strategic communication expert, and a gender, participation, and safeguards expert. These profiles will ensure that the strategy is executed in an integrated, gender-sensitive manner, aligned with GEF objectives.

Finally, the plan is conceived as a behavioral change instrument. It does not merely aim to inform, it seeks to directly influence the attitudes of fishers, consumers, businesses, and authorities, reducing tolerance toward IUU fishing and promoting the adoption of traceability and sustainability practices. By institutionalizing communication and KM products within ministries, agencies, and regional networks, the project will ensure that results endure, reinforce cooperation among countries, and strengthen fisheries governance beyond the GEF's temporal scope.

5. Gender equality

The Gender Analysis and the Gender Action Plan are in Appendix 3 (3.a.,3.b). There will be a Gender Participation, Safeguards consultant that will support the PCU and will

provide technical assistance and guidance for the gender action plan, and together with the monitoring specialist, will monitor and assess progress during project implementation.

Ecuador, Peru, and Chile share a commitment to promoting gender equality and women's empowerment through various international and regional agreements. All three nations have ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (1985) and the Inter-American Convention on the Prevention, Punishment, and Eradication of Violence against Women (Convention of Belém do Pará) (1994). They also participated in and adopted the Declaration and Beijing Platform for Action (1995) and have pledged their support to achieving the Sustainable Development Goals within the 2030 Agenda for Sustainable Development (2015).

The three participating countries possess strong constitutional and national policy frameworks for gender equality, although their progress varies in the specifics and integration into sectors like fisheries: Ecuador's 2008 Political Constitution guarantees gender equality and mandates political gender parity, implemented through the National Council for Gender Equality (CNIG) which issues mandatory guidelines for all public institutions to incorporate a gender perspective into their management, policies, and plans, including the National Agenda for Gender Equality 2021-2025; Peru's 1993 Political Constitution establishes the principle of non-discrimination, reinforced by the National Policy on Gender Equality (PNIG) and the Multisectoral Strategic Plan for Gender Equality (PEMIG), which structure a cross-sectoral approach to guarantee women's economic and social rights, including in natural resource and ecosystem management; Chile demonstrates a robust legal commitment to gender equality in its fisheries sector, building upon its Constitution and the work of the Ministry of Women and Gender Equality (MMyEG) and the Ministry of the Environment's Gender Office. This commitment has been materialized through two key laws: Law No. 21.709 (2024) mandates that artisanal fisheries management committees must reserve at least one-third of membership for each gender and ensure representation for all related activities, such as processing and sales. Additionally, Law No. 21.698 (2024) updates the Fishing Coves Law to specifically strengthen inclusion and gender equity in the administration of these coves, ensuring formal recognition and integration of women's contributions to the sector.

The Gender Inequality Index (GII) measures inequality in three aspects of Human Development: reproductive health, empowerment, and economic status, among 191 countries. Based on these indicators, it is evident that Chile presents a better picture in terms of gender gaps, ranking 49th, compared to Peru (85th) and Ecuador (89th). Regarding access to secondary education, Chile stands out for its high levels of educational parity (82.2% female and 84.4% male). In contrast, Peru presents a significant gap of 11.1% (55.6% female and 66.7% male), while Ecuador shows similar values (54.1% female and 54.2% male), but low compared to Chile. To complement the analysis, it is key to relate access to education to labour market participation. In line with this, the three countries show significant gaps between men and women in terms of labour participation (Table 1). While the labour force for men is on average 76.63%, for women it is only 56.8% on average, which represents a gap of more than 19%. This reflects that although women may have increased access to education, this doesn't automatically guarantee their inclusion in the labour market. The data highlights the persistence of gender barriers that limit women's labour inclusion.

The gender analysis concluded that:

- The integration of a gender perspective in the fisheries sector varies significantly across the three countries. Chile has advanced legislation and successfully collects sex-disaggregated data, while also strengthening women's organizations. In contrast, Peru and Ecuador have made less progress and still face significant challenges in formally identifying and documenting women's contributions throughout the supply chain.

- Despite making up about half of the workforce in small-scale fisheries, women's significant contributions, particularly in pre- and post-extraction activities like processing and sales, are often unseen and undervalued. This invisibility is caused by a lack of formal recognition, poor data collection, and cultural biases. As a result, women are often excluded from governmental support programs, and their work is not adequately regulated.

- This project presents a good opportunity to address gender aspects in fisheries traceability. By focusing on a 'hook to plate' traceability approach, the project can make women's contributions visible and ensure that the supply chain remains unbroken. This is crucial because the success of eCDT systems relies on the collaboration and engagement of all stakeholders in the supply chain, including women.

TABLE 1: GENDER INEQUALITY INDEX AND GLOBAL GENDER GAP INDEX FOR PARTICIPATING COUNTRIES

No.	Country	GII	GII- Empowerment					GGGI- Economic Status	
		Rank	Share of seats in parliament	Population with at least some secondary education (% ages 25 and older)		Labour force participation rate (% ages 15 and older)		Economic participation and opportunity	Political empowerment
			(% held by women)	Female	Male	Female	Male	Score	Score
1	Perú	85	40	55.6	66.7	66.7	82.4	0.686	0.380
2	Chile	49	32.7	82.2	84.4	50.1	70.6	0.707	0.502
3	Ecuador	89	38.7	54.1	54.2	53.6	76.9	0.662	0.482

The gender action plan (Appendix 3- 3.b.) delineates 10 actions to be executed during project implementation, among which are the following:

- The participatory validation workshops for the national action plan review will integrate affirmative actions to promote women participation. By proactively auditing invitation lists, the project will ensure that a minimum percentage of invitees are women, enabling them to contribute their perspectives and interests.
- The participatory diagnosis will assess the capacities, roles, and motivations of all stakeholders across the supply chain. It will specifically analyse the challenges and opportunities for women and youth, and the final report will present actionable, gender-responsive recommendations.
- The stakeholder engagement strategy will incorporate insights from women in the supply chain to promote the effective use of eCDT systems.
- A regional knowledge exchange will be conducted among women's groups linked to the three countries' target fisheries to reflect on best practices and identify social, monetary, and non-monetary incentives for project implementation. Drawing on the

perspectives of women and fishing families, this event will yield lessons to enrich fisheries' traceability and inform the design of pertinent incentives.

- The modules design will be gender-responsive training modules that are specifically tailored to women´s needs and related to their specific activities within the target fisheries' supply chain. The modules will use inclusive and culturally appropriate language and content relevant to women's specific roles in the target fisheries' supply chain.
- The capacity building program´s pilot will implement affirmative actions to ensure that at least 30% of trainees are women, and at least 10% are young people.
- The training modules and strategy will be refined using feedback from women which will be collected through targeted consultations during the pilot phase.
- The Project lessons learnt incorporating the social and economic perspectives of fishers' families, highlighting the challenges for women and youth in traceability processes are published on the IW-Learn Gender Hub.
- All the project implementation activities will record sex and age data in participation, include gender considerations in hiring and procurement, and in all project reporting mechanisms. The PCU will be established by gender balance and there will be one specialized gender and participation person to support project implementation.

6. Stakeholder engagement

The Stakeholders' Analysis and Engagement Plan (SEP) is in Appendix 3.3b. There will be a Gender, Participation, Safeguards (GSPS) consultant to coordinate the implementation of the plan, and together with the Monitoring and Evaluation specialist, will monitor and assess progress.

There are 64 stakeholders identified during the PPG phase. This group are the baseline for all stakeholder engagement and involvement activities during the Project implementation. From the 64 stakeholders, the vast majority, 39 have a national scope of action, there are 14 from Ecuador, 20 from Peru and 14 from Chile.

Based on the nature of this project, the 64 stakeholders are distributed across six defined categories. The majority consist of Public Institutions (22) and Private Initiatives (20), with the remaining groups comprising NGOs (11), International Cooperation agencies (5), Regional Organizations (3), and Research Institutions (3).

From the total, there are 32 actors that have been identified as key stakeholders due to their high level of influence and interest and for whom special attention should be given for full involvement, to stablish strategic actions for full collaboration. Then, 30 actors have a medium interest and influence, and they must be part of consultation and involvement processes. This identification must be actively revisited, and these latter stakeholders should be assessed for focused interventions to increase their engagement.

The PPG Phase was conducted in full consultation and with the close engagement of governments, private initiatives, NGOs, and research institutions- stakeholders – particularly those who will be directly involved in the implementation of the project activities (Appendix 10 Participation and engagement strategy for PPG phase). Table 2 makes a summary of the number of meetings and number of consulted persons, organizations, and institutions. The strategy for consultation and stakeholders' involvement for PPG was implemented in two levels:

- Institutional level workshops with the designated focal points from the environmental and fisheries authorities, in addition to the GEF focal points and other relevant stakeholders from the three participating counties. There was one regional meeting

and three national meetings with about 142 representatives of key stakeholders and parties involved. The workshops were implemented as follows: (1) Initiation virtual-Kick-off workshop held on May 2025 to introduce the project design to the correspondent authorities as they will be the main stakeholders in each country, and to introduce the PPG team and agree on the arrangements required for the PPG preparation phase. (2) Strategic Regional Planning workshop held between the 15-17 of July in 2025 in Lima to draft the key elements of the project concept, describe the actual context, draft a preliminary exercise of the theory of change and an initial Result Framework, and agree on the PPG roadmap. (3) Three national validation workshops to review the Results Framework and provide final inputs. The meetings were held as follows: Peru, 21 of august in Lima; Ecuador 22 of august in Manta; and Chile 28 of august 2025 in Valparaiso.

- Bi-lateral meeting for consultations with key stakeholders (in presence and virtual interviews, bilateral meetings and focus groups) were developed by the PPG team with the parties involved in each country. There were 41 meetings held with about 336 representatives from key stakeholders.

TABLE 2: SUMMARY OF THE RESULTS OF PARTICIPATION AND ENGAGEMENT STRATEGY DURING THE PPG PHASE.

Stakeholder Engagement Activity	Number of meetings	Number of organizations/institutions representatives
Institutional level	One regional Three national meetings	142 Participants in total Regional meeting: 74 participants Peru meeting: 26 participants Ecuador meeting: 25 participants Chile meeting: 17 participants
Bilateral meetings	41 meetings	336 Participants in total 16 participants from Ecuador 96 participants from Peru 224 participants from Chile

The project will be implemented through direct involvement of local stakeholders and institutions. About 10.725 persons have been identified as direct beneficiaries from project activities.

The Stakeholder Engagement Plan was built on the results of the stakeholder mapping and analysis during the PPG and therefore is a framework document that needs to be updated during project inception phase. The Plan has identified seven general barriers for stakeholder participation; Table 3 summarizes these barriers and the proposed mitigation actions; and Table 4, propose some engagement techniques that should be developed depending on the stakeholder and the four strategies of engagement: collaborate, involve, consult or inform.

TABLE 3: STAKEHOLDER ENGAGEMENT BARRIERS AND PROPOSED MITIGATION ACTIONS

Barriers	Mitigation measures
Lack of political commitments could result in poor articulation between stakeholders in each participating country, leading to limited success of project results.	Highlight the added value of strong coordination and collaboration at multiple levels will result in sustainable processes, greater impact, and improved traceability of target fisheries.
Weak/inadequate engagement of diverse multi-stakeholders with a variety of interests leading to low participation in the project.	Establish tools for stakeholder engagement early and throughout the project implementation, as well as measuring the level of participation and involvement. Facilitate dissemination of information, using clear and cultural sensibility. Use facilitators and effective communication mechanisms.
Conflicting interests can lead to stakeholder fatigue and limitations to sustained participation in project activities such as working groups or participatory processes for developing national action plans or capacity building programs.	Hold respectful dialogues in conflict resolution. Conduct targeted meetings with specific stakeholder groups. Be flexible when addressing and trying to resolve concerns. Avoid fragmentation, duplication, overlaps of activities. Use facilitators and effective communication mechanisms.
Conflicting responsibilities and high workload, notably in public institutions may limit the time availability to have an active participation in the project.	Ensure that all meetings / workshops are efficiently planned and managed, with a clear agenda and specific targets, considering the needs and time limitations of the participants.

In addition to the cost of time that each person dedicates to the activities and events of the project, there are other associated costs like travel expenses, food, and lodging. Some people will not have the means to cover these expenses.	Provide travel support (reimburse travel expenses) and provide board and lodging to stakeholders that need assistance. Give special attention to women participation and poor stakeholders.
Difficulties in understanding technical matters and complex concepts, language, difficulty expressing ideas.	Encourage the use of plain-inclusive language and graphic communication during trainings, meetings and for disclosing information. Complement group meetings with in-person meetings. Assure that facilitators and trainers can integrate all the participants' opinions. Need to consider that some people may not have formal training and may need special support to fully understand complex issues.
Existing inequalities of women derived from cultural perspectives and discrimination can limit their active involvement and participation in project activities	Implement project´s gender-related indicators and actions determined in the Gender Action Plan (Appendix 3. 3.b.) as part of implementing positive actions towards facilitating women participation. Use gender inclusive language in the project communication strategy.

TABLE 4: PROPOSED ENGAGEMENT TECHNIQUES AND CHANNELS

Engagement Techniques	Appropriate application of the technique	Purpose	Inform	Consult	Involve	Collaborate
Correspondences via email	Invite stakeholders to meetings in early stages of project implementation. Provide information on support for activities.	Disseminating information and official record keeping	x	x	x	x
One-on-one or virtual meetings	Implement meetings asking for view, insights, and opinions. Provision of permanent information and feedback. Develop a memoire and register the agreements and points of actions to follow up. Easy organization and coordination via WhatsApp messages.	Listen concerns and gather feedback on specific issues		x	x	x
Formal meetings	Present the Project information to groups of stakeholders. Disseminate specific technical information. Provision of permanent information and feedback. Develop a memoire and register the agreements and points of actions to follow up. Share project Milestones	Build consensus and foster shared ownership		x	x	x
Informal meetings	On-site visits and community chats. Informal consultations Distribute informal information with infographics and data with pedagogical elements for overcoming literacy barriers.	Built Trust and gather on-the ground information about project implementation		x	x	
Multi-stakeholders' meetings | Public meetings	Present project information to a large group of stakeholders and public in general. Allow the group to provide their views and opinions. Distribute non-technical information in appropriate language and techniques to be delivered to public in general.	Foster collaboration among diverse groups	x	x		

7. Sustainability

The sustainability of the project will be ensured through institutional, financial, regulatory, social, and technical arrangements that guarantee the continuity of results beyond the GEF project's funding and implementation period.

- **Institutional and governance sustainability:** The project will strengthen the fisheries institutions of Ecuador, Peru, and Chile through comprehensive diagnostics, national action plans, and interoperability mechanisms that will be integrated into the official MCS and eCDT systems. These arrangements will be supported by updated regulatory frameworks aligned with international standards (PSMA, CITES, GDST, among others), ensuring that governments adopt and maintain sustainable long-term practices.

- **Financial sustainability:** Sustainable financing mechanisms combining public, private, and international sources will be identified and validated to ensure the operation and maintenance of eCDT systems beyond the project's duration. The inclusion of co-financing schemes, integration of these costs into national budgets, and the creation of public-private partnerships will provide economic stability for the investments made.

- **Technical and operational sustainability:** Technological improvements (digitalization of processes, platform interoperability, electronic monitoring, onboard cameras) will be accompanied by continuous training processes and proposals to institutionalize eCDT training modules. This will ensure that the installed capacities remain within ministries, communities, and the private sector, and that the systems continue to be updated and functional.

- **Regulatory and policy sustainability:** The project will support the updating and creation of national regulations consistent with international market requirements. It will also establish mechanisms for the periodic review of policies to allow their adaptation to new global trends in traceability, transparency, and sustainability, thus reducing the risk of regression.

- **Social and gender sustainability:** The project will promote the inclusive participation of fishing communities, the private sector, women, and youth, ensuring the legitimacy and social ownership of eCDT systems. A central element will be the institutionalization of the training modules developed by the project, including basic, advanced, and train-the-trainers content. These modules, materials, and methodologies will be integrated into technical schools, specialized institutes, universities, and fisheries sector extension programs in the three countries, ensuring that training efforts endure over time as part of official educational offerings.

Capacity-building efforts will not be limited to project workshops but will be embedded in permanent structures, expanding training through extension and continuous education. This will ensure that new generations of fishers, inspectors, technicians, and communities possess the necessary tools to use and maintain eCDT systems effectively. Gender mainstreaming will guarantee equitable benefits and the visibility of women's roles in the fisheries value chain, consolidating the social sustainability of results.

- **Replicability and regional scaling-up:** Pilot experiences will be documented, systematized, and disseminated through national, regional, and global platforms (IW:LEARN, international forums). The project will consolidate a regional cooperation network that will enable the replication of lessons learned in other Eastern Pacific Ocean (EPO) fisheries, creating a catalytic effect and contributing to the conservation of migratory species and the resilience of marine ecosystems associated with the Humboldt Current.

Likewise, scaling beyond initial pilots into new geographical areas is planned through the deployment of sustainable communication toolkits and technical manuals. A South-South cooperation framework, including internships and communities of practice, is expected to accelerate the transfer of technical expertise from pilot sites to national and regional stakeholders. By institutionalizing these resources within national agencies and global platforms, the project intents to provide the institutional infrastructure required for the systematic growth of digital systems after project closure.

Overall, sustainability will be achieved by integrating the project's results into permanent national structures with stable financing, institutionalized technical capacities, updated regulatory frameworks, social legitimacy, and regional cooperation mechanisms that transcend the life of the initial funding.

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this project, including financial management and procurement. If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

To ensure the achievement of the main objective and the delivery of the planned outputs and outcomes, the project will be implemented through a governance and coordination structure that combines strategic, technical, and operational levels. This structure will enable clear and timely communication flows, ensure accountability, and strengthen coordination among the three participating countries and the implementing and executing entities. UNEP, as the GEF Implementing Agency, will provide overall project oversight and ensure compliance with GEF policies, safeguards, and reporting requirements. WWF will act as the Executing Agency responsible for day-to-day project execution, financial management, and delivery of project outputs. The Project Steering Committee (PSC) will provide strategic guidance and oversight, while the Project Coordination Unit (PCU), hosted by WWF Peru, will manage the operational implementation of activities across the participating countries. A diagram with the proposed structure is presented in Figure 3, and the flow of funds is portrayed in Figure 4.

- **Strategic and Oversight Level – Project Steering Committee (PSC):** The PSC serves as the highest governance body of the project. It is responsible for defining the project's strategic guidelines, overseeing alignment with national priorities and GEF policies, and approving annual work plans and budgets. It also reviews technical and financial reports and evaluates implementation progress. The committee is composed of representatives from the national fisheries authorities of each participating country: the Ministry of Production (PRODUCE) in Peru, the National Fisheries and Aquaculture Service (SERNAPESCA) in Chile, and the Undersecretariat of Fisheries Resources (SRP) in Ecuador. Each national fisheries authority will designate a National Project Director who will serve as the official national counterpart for the project and facilitate coordination between national institutions and the Project Coordination Unit (PCU). The GEF Operational Focal Points from the Ministries of each country will also participate in the committee. In addition, the United Nations Environment Programme (UNEP) as the implementing agency, and WWF as the executing entity, will also participate in the PSC. The PCU acts as the PSC's Technical Secretariat.

The PSC is expected to meet at least once per year and may hold extraordinary meetings as needed.

- **Technical–Strategic Level – Regional Technical Advisory Committee (RTAC):** The RTAC functions as the technical advisory body of the project, providing expert guidance on scientific, technological, and interoperability aspects related to traceability systems and monitoring, control, and surveillance. It is composed of representatives from the main technical and scientific institutions linked to the fisheries sector in each country: the Peruvian Sea Institute (IMARPE), the Fisheries Development Institute of Chile (IFOP), and the Public Institute for Aquaculture and Fisheries Research of Ecuador (IPIAP), SERNAPESCA, PRODUCE, SRP, its National Directors, as well as the GEF Operational Focal Points from the Ministries of Environment of each country, and WWF, as the executing entity. Each institution, SERNAPESCA, IMARPE, and SRP, will appoint a national project director who will be directly involved with the PCU and the executing agency. Additional participants, including sectoral authorities, civil society organizations, artisanal fishers' associations, private sector representatives, and invited experts, may be invited to RTAC meetings on an ad hoc basis to provide specialized technical input when required. The RTAC advises the PCU on the planning, implementation, and supervision of activities, contributes to alignment with international standards, and supports the organization of supervision missions. The RTAC is expected to meet at least once per year and may hold extraordinary meetings as needed.

- **Technical–Operational Level – Project Coordination Unit (PCU):** The PCU is the operational core of the project and is hosted by WWF Peru (based in Lima) as the Executing Agency, under the oversight of UNEP as the GEF Implementing Agency. WWF Chile and WWF Ecuador will support national-level implementation, while WWF-US will provide technical support on international traceability standards and market engagement. The PCU coordinates daily implementation across the three countries and channels the strategic advice provided by the RTAC. The PCU ensures technical and administrative execution, consolidates technical and financial information for reporting to WWF and UNEP, facilitates coordination with national entities, leads the monitoring of social and environmental risks and knowledge management in accordance with UNEP and GEF requirements. Each country will also have the National coordination Units (NCU) for local coordination with partners and stakeholders.

The Project Coordination Unit (PCU) will include the following core positions financed through the Project Management Cost (PMC) budget: Regional Project Coordinator, and the National technical support from each participating country. Additional PCU positions will be hired as consultants, some on a part-time basis, these include Administrative Staff, Traceability Systems and Interoperability Specialist, Capacity Development and Knowledge Management Specialist, Policy and Governance Specialist (part time), Monitoring and Evaluation (M&E) Specialist (part time), Gender Participation Safeguards Specialist (part time) and Communications specialist (part time).

- **Financial Management and Procurement:** Financial management, procurement, contracting and accounting, will be handled by WWF in accordance with UNEP and GEF fiduciary guidelines. Funds will be transferred from UNEP to WWF, and subsequently to the PCU for the execution of regional and national activities, in line with approved plans. Procurement processes will be conducted competitively and transparently. The PCU Administrative staff will support operational financial and procurement coordination, including budget tracking, documentation, and liaison with WWF's finance and procurement teams. The PCU will submit regular financial reports to WWF and UNEP,

and the project will be subject to annual external audits to ensure compliance with fiduciary standards.

- **Coordination Mechanisms:** Coordination among the three levels of governance will be ensured through periodic meetings of the PSC, RTAC, and PCU, supported by digital knowledge management platforms and structured reporting systems. This setup guarantees a bidirectional flow of information, informed decision-making, and transparency in management, strengthening coherence between regional objectives and national actions. Regional entities such as the Permanent Commission for the South Pacific (CPPS) will contribute through regional coordination and technical collaboration under Component 2, without assuming fiduciary or execution responsibilities, which remain with WWF as the Executing Agency in accordance with UNEP and GEF requirements.

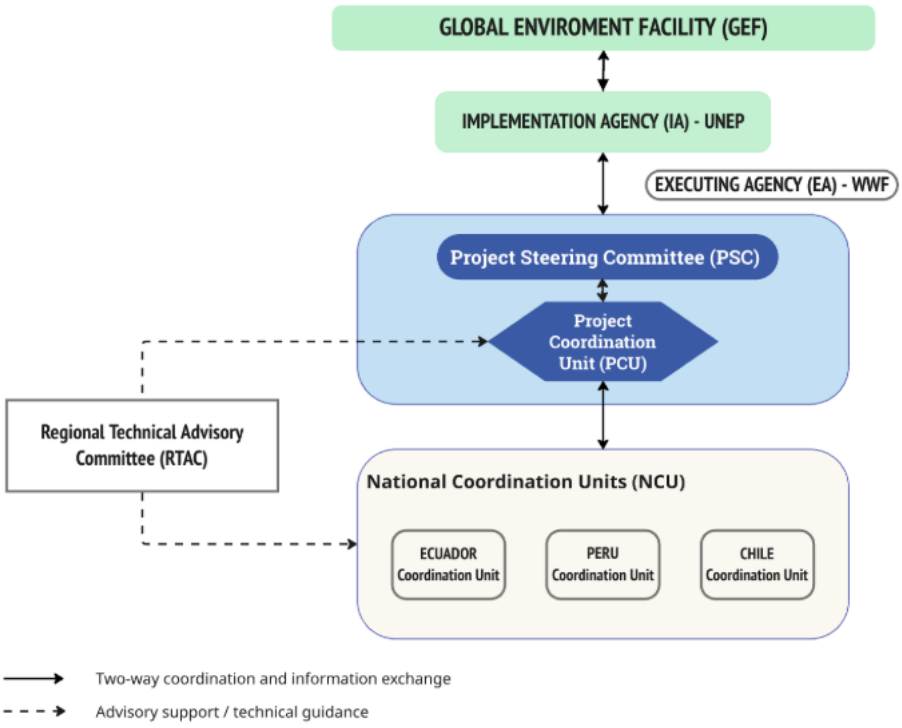


FIGURE 3: DIAGRAM WITH INSTITUTIONAL ARRANGEMENTS

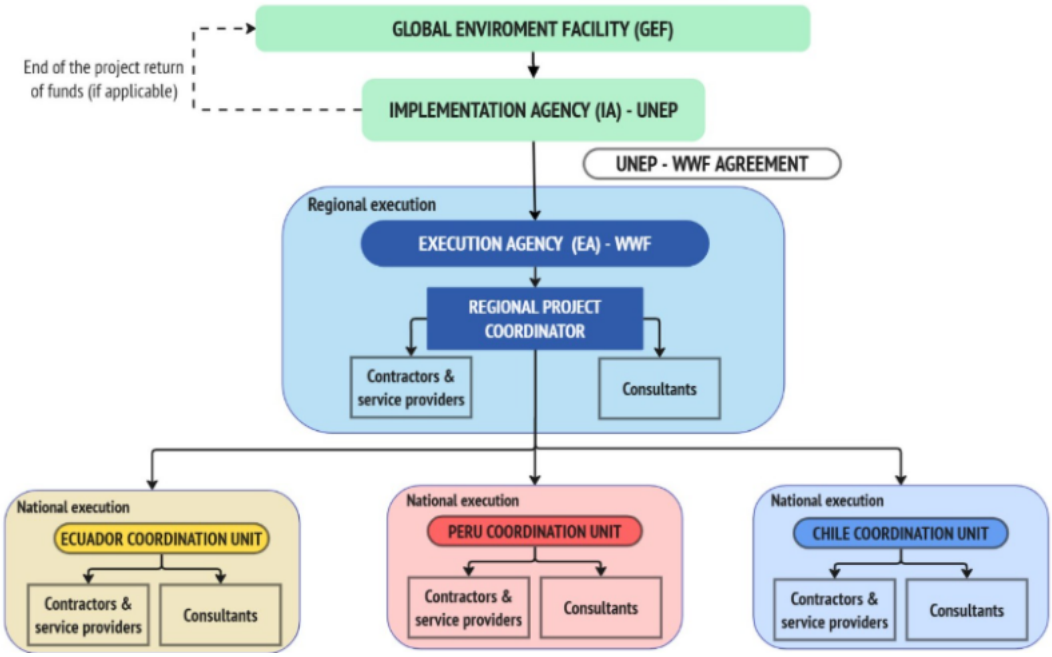


FIGURE 4: FLOW OF FUNDING

Will the GEF Agency play an execution role on this project?

If so, please describe that role here and the justification.

N/A

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

The project will coordinate with ongoing global, regional, and national initiatives relevant to its objectives, ensuring complementarity and avoiding duplication. Together, these investments provide a strong basis for a more integrated response to illegal, unreported and unregulated (IUU) fishing through improved traceability, monitoring, and governance systems in the Southeast Pacific.

Humboldt I and II in Chile and Peru, particularly Humboldt II (GEF ID 10452), supported ecosystem-based management, regional cooperation, and fisheries value chains. Through its Component 4, Humboldt II applied traceability to support sustainable production and market access. A key example is the traceability pilot in the macha value chain in Chile, which involved authorities, fishers, and consumers and showed how traceability can strengthen legality while supporting responsible consumption and product differentiation. This project will build on these efforts by aligning traceability approaches, institutional arrangements, and standards, allowing product- and value-chain initiatives such as the macha pilot to connect with broader national and regional traceability and governance frameworks, without duplicating investments.

The project will build over and align with the Coastal Fisheries Initiative (CFI, GEF ID 9124), which demonstrated the potential of digital tools, including electronic monitoring and digital traceability and certification systems, to improve transparency and compliance in coastal fisheries. CFI also highlighted the importance of institutional anchoring and user adoption. Building on this experience, the project will focus on

embedding traceability and monitoring tools within government-managed systems and ensuring interoperability at the regional level.

The project will also build over and coordinate with Mainstreaming Sustainable Marine Fisheries Value Chains into the Blue Economy of the Canary Current and the Pacific Central American Coastal Large Marine Ecosystems (GEF ID 11011). That initiative supports the integration of environmental and social sustainability into fisheries value chains, including in Ecuador. Coordination will ensure coherence between value chain interventions and the traceability and electronic documentation systems supported under this project, reinforcing sustainability outcomes without duplication.

In the Eastern Tropical Pacific (ETP), the project will coordinate with project Beyond 30x30: Securing resilience in the Eastern Tropical Pacific through enhanced transboundary cooperation (ETP, GEF ID 11267), which strengthens regional governance and coordination for marine conservation. This project will complement those efforts by contributing fisheries-specific traceability and information systems that support cross-border cooperation and responses to IUU fishing.

The project design also responds to priorities identified in the Transboundary Ecosystem Diagnostic Analysis (TDA) and Strategic Action Program (SAP) for the Humboldt Current Large Marine Ecosystem. These processes identified persistent challenges, including overexploitation, illegal fishing, species substitution, inefficient supply chains, and limited traceability, as well as structural constraints related to monitoring capacity, enforcement, financing, and data availability. The project addresses these gaps by strengthening institutional capacity, improving access to reliable fisheries information, and integrating traceability and monitoring tools into decision-making.

At the national level, the project will build on ongoing initiatives in all three participating countries. In Peru, electronic departure and arrival systems interconnected with the TrazApp application are advancing the digitalization of permits and control across artisanal and industrial fleets. In Ecuador, pilots on electronic logbooks and onboard cameras have generated operational experience in electronic monitoring. In Chile, traceability pilots for benthic resources and algae value chains, including the macha supply chain, have demonstrated the feasibility of community-based approaches. These national efforts provide practical capacity that the project will connect and scale within a regional framework.

Globally, the project will work in close synergy with EM4IUU (GEF ID 11996). While EM4IUU focuses on expanding electronic monitoring infrastructure and strengthening standards for EM governance, this project will ensure that EM data is integrated into national Electronic Catch Documentation and Traceability (eCDT) systems in Chile, Peru, and Ecuador. This integration allows monitoring data to serve as a reliable source for legal traceability, compliance verification, and cross-border surveillance, strengthening regional interoperability and maximizing the value of EM investments.

At the international level, the project benefits from UNEP's experience in supporting regional cooperation and sustainable governance of marine resources through its work under the GEF International Waters focal area. As the GEF Implementing Agency, UNEP will provide technical oversight and facilitate policy dialogue among participating countries and regional organizations, supporting alignment with regional cooperation frameworks such as the Permanent Commission for the South Pacific (CPPS). UNEP also brings relevant global experience on transparency and sustainability in seafood value chains. Initiatives associated with the UNEP Finance Initiative (UNEP-FI) are helping strengthen market expectations for traceability in seafood supply chains, while analytical work by UNEP-WCMC on fishing impacts contributes to science-based criteria that can inform monitoring and compliance frameworks.

These initiatives provide knowledge and reference frameworks that will inform the development of the project's electronic catch documentation and traceability systems (eCDT). By drawing on UNEP's experience in regional cooperation and emerging approaches to seafood traceability, the project will support the alignment of national systems with evolving sustainability standards and strengthen coordinated efforts among Ecuador, Peru, and Chile to combat illegal, unreported and unregulated (IUU) fishing in the Southeast Pacific.

Core Indicators

Indicate expected results in each relevant indicator using methodologies indicated in the GEF-8 Results Measurement Framework Guidelines. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

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)

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)
3	3		

Type/name of the third-party certification

Peru: mahi-mahi

Ecuador: mahi-mahi and bigeye tuna

Chile: blue mussels (Mytilus chilensis)

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)

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE

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)

Indicator 7 Shared water ecosystems under new or improved cooperative management

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

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

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

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

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

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

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

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

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

Indicator 8 Globally over-exploited fisheries moved to more sustainable levels

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
2,200,000.00	292,886.00		

Fishery Details

Fisheries preliminarily prioritized by Ecuador: tuna, mahi-mahi, swordfish, titi shrimp. Peru: giant squid, mahi-mahi, hake, and five species of sharks. Chile: anchovy, common sardine, huiro algae.

This tentative prioritization has been based on compromised biomass, declining catch trends, excessive catch ceilings, high percentages of unreported catches, and government interest in and importance of these species in the international market, for 10 years. Sea Around US databases reveal that, on average, 10% of catches in these fisheries go unreported. In some fisheries, such as shark fisheries, this underreporting can reach up to 40%, which is equivalent to approximately 200,000 tons per year.

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	2,163	3,754		
Male	8,562	6,971		
Total	**10,725**	**10,725**	0	**0**

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

Indicator 5.1 (Fisheries under third-party certification integrating biodiversity considerations = 3).

The project will support at least three fisheries in Peru, Ecuador, and Chile through Fishery Improvement Projects (FIPs) that incorporate biodiversity and ecosystem-based criteria. The implementation of eCDT systems will generate more comprehensive data on biodiversity interactions, such as the incidental catch of endangered, threatened, or protected (ETP) species, as well as information on abandoned, lost, or discarded fishing gear (ALDFG). This evidence will strengthen improvement plans with science-based measures that reduce biodiversity risks and meet sustainability requirements, creating the conditions to progress toward certifications that explicitly recognize these considerations.

Indicators 7.3 and 7.4 (Regional cooperation agreements adopted as a result of GEF-financed investments = 1; Exchange of experiences and lessons learned through IW:LEARN = 1).

The project will support the implementation of the Humboldt Current Large Marine Ecosystem Strategic Action Programme (SAP) by strengthening traceability and Monitoring, Control, and Surveillance (MCS) systems in Peru, Chile, and Ecuador, contributing to fisheries policy reforms and establishing a coordinated regional action framework. It will also connect to the IW:LEARN platform to disseminate experiences and lessons learned, ensuring the global visibility of results and compliance with international cooperation commitments.

Indicator 8 aims to demonstrate that overexploited marine fisheries are moving toward more sustainable levels.

Component 1 will contribute to this outcome by covering at least 282,000 tons per year, corresponding to the average reported catch of prioritized species over the last decade. The selection of these species was based on critical signals: depleted biomass, declining catch trends, excessive exploitation levels, high levels of unreported catches, and their relevance in international markets.

Several studies have shown that unreported catches (although not always illegal) create a structural problem because they underestimate actual fishing pressure. When official figures fail to reflect total extraction, stock assessments become distorted, and there is a risk of setting catch limits that are too high, thereby compromising sustainability (Pauly & Zeller 2016; Van Beveren et al. 2017; Soto et al. 2023). According to Sea Around Us data, underreporting in these fisheries averages 10% of total catches and can reach up to 40% for sharks, equivalent to around 220,000 tons annually. This gap weakens management efforts and, for vulnerable species such as sharks from the Sphyrnidae and Alopias families (listed under CITES Appendix II), represents an additional conservation risk.

The implementation of electronic catch documentation and traceability systems (eCDT) will help close this gap by improving the recording of what is actually caught and transported. This not only enhances the scientific basis for decision-making but also strengthens market control, as an increasing number of export destinations require verifiable traceability for import authorization. By reducing underreporting and discouraging unreported fishing, the project will guide these fisheries toward more sustainable practices, aligning fishing mortality with biological targets and increasing the likelihood of stock recovery and population resilience. Based on available data, the project developed indicative estimates of how strengthened eCDT systems could improve the accuracy and completeness of reported catches. The table below presents these estimations for each prioritized species, highlighting the expected gains in monitoring coverage.

It should be noted at PIF stage that there was typo in the portal (stating 2,200,000 metric tons) whereas the road map was clearly showcasing a PIF with the right amount that is 220,000 metric tons.

Indicator 11 (People benefiting from GEF-financed investments, disaggregated by sex = 10,725 total, of which 3,754 are women and 6,751 are men).

During the PPG phase, the project team reviewed the beneficiary estimates initially presented at PIF through consultations with national fisheries authorities, sector representatives, and fishing community organizations in Chile, Peru, and Ecuador. These consultations were complemented by review of national fisheries registries, fleet statistics, and sector participation data relevant to the fisheries targeted by the project. This process confirmed that the scale of stakeholders expected to benefit directly from project-supported traceability systems and capacity-building activities remains consistent with the estimates initially presented at PIF.

This estimate is based on the expected participation of key stakeholders in the priority fisheries of the three countries involved. The figure reflects the inclusive approach of Component 3 of the project, which envisions the participation of public institutions, government authorities, fishing companies, workers in production chains, fishers, and local communities.

As part of this validation, the project refined its beneficiary estimates as follows:

- Fishing vessels and shipowners: A total of 10,200 people, including 3,200 shipowners and 7,000 crew members.
- Public officials: 300 officials involved in fisheries management across the three countries.
- Workers in private companies: 225 workers from approximately 45 companies in the fishing sector.

Total direct beneficiaries (CI-11): 10,725 people, consistent with the PIF.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	High	Assessment: Although the project activities focus on strengthening and implementing eCDT systems, and their implementation may not be greatly affected by climate variability, an increase in ocean temperature could affect targeted species stocks. Sudden temperature rises and acidification can lead to changes in marine species and habitats. Deviations in ocean currents and warming waters are altering the distribution of fish stocks and the structure of ecosystems, particularly within the highly climate-sensitive Humboldt Current ecosystem, where shifts in upwelling patterns and events such as El Niño further influence species distribution, stock availability, and fishing dynamics. Limited availability of timely and reliable fisheries data may constrain the ability of authorities to respond effectively to these changes. Mitigation measure: Improved eCDT systems are themselves a mitigation measure to this risk, by better recording all the information on catches and landings of the fishing sector and contributing to an effective MCS. If climate variability

		affects the populations of the species prioritized by the project, the information provided by the systems this project is strengthening will support timely and information-based measures to reduce fishing pressure on certain affected species, prioritize other species, etc. As well, WWF US through their participation in this project will ensure that the insights from their work on climate change, conflict, and blue food security (e.g., oceansfutures.org) reach policymakers and inform decision making.
Environmental and Social	Moderate	Assessment: There is a moderate risk of social resistance from some actors in the fisheries sector who may see the implementation of eCDTs as a threat to their current practices. They may object to new obligations, especially if they entail sanctions. In addition, the fisheries sector, historically dominated by men, can present cultural and structural barriers that limit women's participation, perpetuating inequalities and reducing the effectiveness of the project. Mitigation measure: The project will i implement a participatory and differentiated approach, considering the diversity of actors in the fishing sector (industrial, artisanal, shipowners, crew, processing, and authorities), and differences in technical capacities, connectivity access, and digital literacy. Ongoing consultation and feedback mechanisms will support the design and implementation of the eCDT system according to sector realities , highlighting the benefits of eCDT systems to ensure that their use is not only an obligation, but also an advantage. The Project will support system adoption thought training, technical support and demonstration activities to highlight operational, traceability, and fisheries management benefits. Also, the project will promote institutional coordination to support regulatory coherence and institutional capacity building . In terms of gender equality, the project will implement measures to promote women´s effective participation, including participation targets, gender equality training and actions to facilitate women´s participation. These measures will seek to ensure that all actors see the value of the system and that women can fully participate in the project's activities.
Political and Governance	High	Assessment: Political instability in the countries of the region and the high turnover of officials can affect the continuity and effectiveness of the project. In addition, regulatory frameworks may lack legitimacy or be inconsistent, making it difficult to implement and comply with traceability systems. Chile´s political and institutional stability helps public policies in the fisheries sector remain stable over time, as strategic guidelines and regulatory frameworks tend to remain consistent despite government changes. However, staff turnover may generate operational challenges, such as delays in decision making and possible impacts on the speed of implementation of eCDT tools. Mitigation measure: To mitigate the risks of political instability and rotation of officials, the project will work with authorities at all levels, establishing institutional arrangements and agreements to ensure formal commitments that transcend political changes. It will focus on working with middle managers and career officials (where turnover is lower compared to appointed positions) to strengthen capacity through training and empowerment, ensuring that they understand and support the objectives of the project. To mitigate risks

		associated with the turnover of authorities and their technical teams, the project will work with fisheries institutions at different levels, promoting agreements that facilitate the continuity of project actions in the context of political changes. The project will prioritize working with institutional technical teams, supporting capacity strengthening through training and knowledge exchange activities. In addition, the project will promote the generation and dissemination of technical information's to facilitate work continuity and support decision making in the event of personal changes.
INNOVATION		
Institutional and Policy	Moderate	Assessment: eCDTs represent an innovative change that can transform the paradigm of the fishing sector. However, this requires both government and private sector actors to be adequately trained to meet new market demands and regulations. Moderate risk could arise with external stakeholders, such as artisanal fishers, who have their own priorities and a subsistence economy, which could hinder their active participation in the project. The eCDT implementation represents an important change in fisheries management, improving traceability, transparency, and compliance. There is a moderate risk related to adapting institutions and maintaining political support over time. Some key actors, particularly in the productive sector, may show resistance or not fully use the system, which could affect the effective implementation of eCDT. Mitigation measures: To mitigate the main risk, the project will identify attractive incentives to engage external actors, especially artisanal fishers, ensuring that they perceive clear and direct benefits from their participation, such as economic incentives or access to new markets. More broadly, the project will focus on empowering key stakeholders, ensuring that they understand and adapt to new technologies and regulations progressively. To reduce risks, the project will work closely with fisheries authorities and institutions, promoting coordination to ensure that project actions have institutional support and proper oversight. Furthermore, training and technical assistance will be provided to public and private actors to help them become familiar with new technologies and market standards. In addition, the project will support incentives aimed at generating opportunities for market access and improvements in traceability. Finally, participatory activities and pilots will help actors understand and use the eCDT's, contributing to their continued use once the project is concluded.
Technological	Moderate	Assessment: The technical design of the eCDT implementation project could face challenges related to technological complexity, lack of interoperability between existing systems and adaptation to local contexts, especially in remote fishing communities. In addition, there are significant differences in national eCDT and MCS systems across Chile, Peru, and Ecuador, which currently operate with different data structures and varying levels of automation. These challenges, along with concerns about hardware and software becoming obsolete due to the rapid pace of technological innovation, limited or unstable connectivity in artisanal landing sites data confidentiality and security, could limit the implementation and impact of the project. Digital literacy gaps among

		artisanal fishers, inspectors, and small-scale operators may also slow adoption, especially where users have limited prior experience with digital tools. Mitigation measures: The project will prioritize a modular and adaptable design of the eCDT systems, allowing progressive implementation and integration with existing platforms, following global standards such as the GDST. Pilot tests will be carried out in various local contexts to ensure the adequacy and scalability of the technologies. In addition, robust data security measures will be implemented, guaranteeing access only to authorized persons, and processing and confidentiality policies will be developed in line with national regulatory frameworks. As part of the strengthening of national eCDT systems, the project will also support each country in identifying clear steps for improving digital capacities and interoperability, based on the diagnostics and the National Action Plans developed under Component 1. To address technological constraints in artisanal contexts, such as limited or unstable connectivity, the project will draw on simple digital solutions already tested in previous pilots in the region (such as QR-based offline reporting modules used in Chile's algal traceability pilot). These types of practical and low-complexity approaches will help ensure that eCDT tools remain functional and accessible in low-connectivity environments. Digital literacy support will be incorporated into training modules to ensure smooth adoption among artisanal fishers, inspectors, and small-scale operators. Ongoing technical support and best practice manuals will also be provided for end users. Finally, open and modular architecture will be considered (APIs, open-source), with continuous upgrade plans (roadmap, budget), and adherence to global standards (GDST).
Financial and Business Model	Moderate	Assessment: There is a risk of macroeconomic fluctuations in the region, such as inflation, currency devaluation, or economic downturns, which could affect the availability of financial resources, and the ability of institutions and actors involved to invest in the implementation of eCDT systems. In addition, the implementation of these systems in the fisheries sector can represent significant costs associated with software, hardware, human capacity building, monitoring, control, and surveillance (MCS), necessary for their effective operation. Mitigation measures: To mitigate this risk, the project will seek to diversify sources of financing, including international funds, public-private partnerships, and climate finance mechanisms that ensure financial sustainability regardless of macroeconomic fluctuations. In each country, the project will support the identification of pathways for integrating recurrent eCDT operational and maintenance costs into existing institutional budgets, ensuring long-term financial sustainability of national traceability systems. A specific financing scheme will be developed to cover the costs associated with the implementation of eCDT systems, identifying opportunities for collaboration and partnership with the private sector and civil society. Likewise, the alignment of the project with national economic development and sustainability strategies will be encouraged, ensuring its long-term relevance. Financial planning will be flexible, allowing for rapid adjustments in response to changes in the macroeconomic environment.

EXECUTION		
Capacity	Low	Assessment: The three countries have strong experience in the execution of GEF projects. The same applies to WWF which is well experienced in project execution and working to combat illegal, unreported and unregulated fishing. However, there are still relevant institutional risks that could affect the effective and timely execution of this initiative. Public agencies involved in MCS and eCDT systems face persistent challenges related to staff shortages, high turnover in key technical roles, and uneven levels of digital and analytical capacity, particularly at subnational and field levels. In addition, the introduction of new digital tools may move faster than the current technical capacities of some institutions, especially in areas such as data handling and basic system operation. This could create delays if teams are not fully prepared. There are also differences in experience and institutional capacity among the three countries, which may lead to variations in the speed of implementation. Because of this, regular coordination will be important to keep progress aligned across countries. Mitigation measures: Nonetheless, the project design will include measures for (i) capacity development measures to support the government institutions, the district municipalities and the private sector, (ii) knowledge and information sharing, (iii) intersectoral collaboration and (iv) public – private constructive dialogue. In addition, capacity-building activities developed under Component 3 will be tailored to the specific technical roles of national authorities and value-chain actors, ensuring they progressively strengthen the skills required to operate and maintain eCDT systems. To reduce risks associated with staff turnover in Government entities, the project will work with institutions to incorporate core elements of the training content into existing internal training and induction processes, helping maintain continuity over time. Regular coordination meetings already built into the project's governance structure will also support early identification of implementation challenges and ensure timely technical support as needed.
Fiduciary	Low	Assessment: Although fiduciary risks can always exist in the administration of funds, the project partners have extensive experience, knowledge, and expertise in the management of similar projects. This experience has enabled them to consistently meet strict auditing requirements and ensure that resources are handled efficiently and responsibly. Mitigation Measure: To mitigate any potential fiduciary risks, the project will follow the practices established by the partners, which have proven effective in previous projects. This includes implementing rigorous financial controls, regular audits, and accountability procedures to ensure transparency and compliance with fiduciary policies. These procedures include standardized documentation requirements, clear approval workflows, and segregation of financial responsibilities. In addition, the Project Coordination Unit (PCU) will provide periodic guidance to national partners to ensure consistent application of WWF and UNEP financial standards, strengthening compliance, and reducing operational-level risks. Clear internal protocols for addressing and escalating

		any financial irregularities will reinforce accountability throughout implementation.
Stakeholder	Low	Assessment: There is a risk that inadequate participation of stakeholders, such as fishers, local communities, NGOs, and the private sector, will limit the acceptance and effectiveness of the project. A lack of communication or alignment of interests can lead to resistance to change or lack of support. Mitigation measure: To mitigate this risk, a comprehensive engagement and communication plan will be developed that ensures the inclusion of all stakeholders from the outset. This plan will facilitate consultations and co-design processes, integrating the concerns and priorities of the various groups in the development of the project. Special attention will be given to artisanal fishers, women, youth, and actors operating in remote contexts, ensuring their participation through adapted engagement strategies and affirmative inclusion measures. It is also proposed to establish clear and regular communication channels to foster dialogue, allowing stakeholders to feel part of the project and promoting its acceptance and long-term sustainability. The project will highlight practical benefits of eCDT adoption, such as simplified procedures, improved access to legal markets, and reduced administrative burdens, helping to reduce resistance from groups that may initially perceive digital systems as costly or complex.

Other		

Overall Risk Rating	Moderate	The overall rating is moderate given the contextual risk including Environment and Social risks and the innovative character of the project which however has the potential to transform the paradigm of the fishing sector.

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

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

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

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this. (max. 500 words, approximately 1 page)

The project has been designed in alignment with the GEF-8 programming directions for International Waters and Biodiversity. Within the scope of International Waters, the adoption of electronic catch documentation and traceability systems (eCDT) will strengthen access to critical, science-based data that are essential for formulating sustainable regional policies. It will also contribute to reducing illegal fishing through more effective catch monitoring, ensuring that fishing activities are conducted legally and responsibly. Through interministerial and trinational coordination mechanisms, the project will foster collaboration among Peru, Chile, and Ecuador, harmonizing policies and promoting the sustainability of fisheries and the conservation of shared marine ecosystems. In the area of Biodiversity, the implementation of eCDT will prioritize fisheries

involving sensitive species, such as sharks listed under CITES, improving the traceability of these resources and ensuring compliance with international standards that protect marine biodiversity.

The project also makes tangible contributions to the fulfillment of major multilateral frameworks. In relation to the Kunming-Montreal Global Biodiversity Framework, the project contributes directly to Targets 9 and 10 by promoting the sustainable use and responsible management of fisheries, as well as to Targets 14 and 15 by integrating biodiversity information into public policy decisions and demanding greater accountability from the private sector in fisheries value chains. Transversally, it also supports Targets 4, 5, 21, 22, and 23 by prioritizing vulnerable species, ensuring legal trade, guaranteeing equitable access to information, promoting inclusive participation of coastal and Indigenous communities, and fostering gender equality in fisheries management. In parallel, the project reinforces the implementation of the SDGs, particularly SDG 14.4 on IUU fishing and SDG 16.5 on reducing corruption, by digitalizing processes and strengthening transparency in the fisheries sector.

Finally, the project is aligned with the national commitments expressed in the Nationally Determined Contributions (NDCs) and sectoral policies of the three countries. In the case of Peru, it directly responds to the commitment to implement a traceability system for anchoveta and strengthen surveillance of artisanal fisheries, while in Chile and Ecuador, it reinforces national frameworks for fisheries sustainability and control. Through these efforts, the initiative not only contributes to biodiversity conservation, food security, and the resilience of coastal livelihoods but also ensures compliance with international standards and maintains the competitiveness of fisheries exports in increasingly demanding global markets.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment

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

Yes

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

Yes

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

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

Yes

Improving women's participation and decision-making; and/or

Yes

Generating socio-economic benefits or services for women.

Yes

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

Yes

Stakeholder Engagement

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

Yes

Select what role civil society will play in the Project

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

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

Executor or co-executor; Yes

Other (Please explain)

Private Sector

Will there be private sector engagement in the project?

Yes

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

Yes

Environmental and Social Safeguards

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Medium/Moderate Medium/Moderate		

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted and an anticipated timeline for delivery of relevant outputs has been provided.

Yes

Socio-economic Benefits

We confirm that the project design has considered socio-economic benefits to be delivered by the project and these have been clearly described in the Project Description and will be monitored and reported on during project implementation (at MTR and TER).

The Global Environment Facility (GEF) directs its investments toward generating Global Environmental Benefits (GEBs), including biodiversity conservation, sustainable management of shared ecosystems, and strengthening resilience to climate change. GEF-supported projects also seek to produce social and economic co-benefits by improving livelihoods, food security, and equity. This section details how the project's Components and Outcomes contribute to both levels.

In this case, the global environmental benefits are expressed in three main dimensions, biodiversity, regional cooperation, and ecosystem resilience, each directly linked to the project's intervention framework:

- Conservation and sustainable use of marine biodiversity in a megadiverse and productive seascape. The project will reduce overfishing and illegal fishing by strengthening control and traceability systems in the region. Through more transparent and reliable processes, it will ensure that catches come from legal and sustainable sources, promoting the conservation of marine species and the balance of ecosystems. This will guarantee the long-term availability of fishery resources and protect the livelihoods that depend on them.
- Cooperation among States and institutions to address threats in shared waters. The project will strengthen regional cooperation against IUU fishing by promoting information exchange and coordination of joint actions. The creation of stable collaboration mechanisms will enable countries to respond more effectively to transboundary threats and harmonize efforts in the management of shared fisheries and marine resources. This will foster stronger governance and more sustainable use of ecosystems that transcend national boundaries.
- Greater resilience of ecosystems and fisheries to climate change. Strengthening traceability and control systems will enable management decisions based on verifiable data, increasing adaptive capacity to changing marine conditions associated with climate change and oceanographic variability. Likewise, aligning eCDT systems with international market certification and traceability requirements will reinforce the sustainability and competitiveness of fisheries, ensuring their long-term ecological and socioeconomic resilience.

In addition, the project will generate social and economic co-benefits that reinforce sectoral sustainability and community well-being. Reducing illegal fishing and strengthening traceability will create a more stable and

trustworthy environment for formal operations, thereby improving the competitiveness of fisheries value chains and facilitating access to demanding international markets. This enhanced legality and transparency will help reduce economic losses and create more equitable conditions for artisanal fishers, strengthening food security by ensuring that fishery products reach consumers reliably. At the same time, the project will promote the inclusion of women and youth through training and active participation processes, strengthening coastal livelihoods and generating fairer, more sustainable social impacts.

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
UNEP	GET	Regional	International Waters	International Waters: IW-1	Grant	8,000,000.00	760,000.00	8,760,000.00
Total GEF Resources ($)						**8,000,000.00**	**760,000.00**	**8,760,000.00**

Project Preparation Grant (PPG)

Was a Project Preparation Grant requested?

true

PPG Amount ($)

200000

PPG Agency Fee ($)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	PPG($)	Agency Fee($)	Total PPG Funding($)
UNEP	GET	Regional	International Waters	International Waters: IW-1	200,000.00	19,000.00	219,000.00
Total PPG Amount ($)					**200,000.00**	**19,000.00**	**219,000.00**

Please provide Justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)
Total GEF Resources					**0.00**

Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
IW-1-2	GET	8,000,000.00	116573341
Total Project Cost		**8,000,000.00**	**116,573,341.00**

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Private Sector	Cargo Logistics Service - CLS PERU SAC Group	Other	Investment mobilized	12000
Private Sector	Corporación de Ingeniería de Refrigeración -COINREFRI S.R.L	Other	Investment mobilized	37000
Civil Society Organization	Cooperativa Pesquera San José Limitada	Other	Investment mobilized	350000
Private Sector	EUROFISH S.A.	Other	Investment mobilized	2000000
Civil Society Organization	FAIIR Initiative Seafood Traceability Engagement	Grant	Recurrent expenditures	400000
Civil Society Organization	FAIIR Initiative Seafood Traceability Engagement	In-kind	Recurrent expenditures	40000
Civil Society Organization	FAIIR Initiative Seafood Traceability Engagement	Equity	Investment mobilized	9600000
Civil Society Organization	Future of Fish - Chile	Other	Investment mobilized	310000
Private Sector	FRESH FISH DEL ECUADOR CÍA. LTDA.	Other	Investment mobilized	1000000

Civil Society Organization	Fundación Escuela de Pesca del Pacífico Oriental (EPESPO)	Grant	Investment mobilized	200000
Civil Society Organization	Fundación Escuela de Pesca del Pacífico Oriental (EPESPO)	In-kind	Recurrent expenditures	1800000
Civil Society Organization	Global Dialogue on Seafood Traceability (GDST)	In-kind	Recurrent expenditures	50000
Recipient Country Government	Ministerio de Agricultura, Ganadería y Pesca de Ecuador	In-kind	Recurrent expenditures	20000000
Recipient Country Government	Ministerio de Agricultura, Ganadería y Pesca de Ecuador	Public Investment	Investment mobilized	1060000
Recipient Country Government	Ministerio de Agricultura, Ganadería y Pesca de Ecuador	Grant	Investment mobilized	3200000
Recipient Country Government	Ministerio de la Producción del Perú	In-kind	Recurrent expenditures	20499215
Civil Society Organization	Global Food Traceability Center (GFTC)	In-kind	Recurrent expenditures	260000
Civil Society Organization	Global Food Traceability Center (GFTC)	Grant	Investment mobilized	150000
Private Sector	La Mar Cebichería Peruana	Other	Investment mobilized	88770
Civil Society Organization	Oceana, Inc. - Chile	Other	Investment mobilized	572833
Civil Society Organization	Oceana, Inc. - Peru	Other	Investment mobilized	500000
Civil Society Organization	Peruanos Unidos por la Cocina y la Alimentación (PUCA)	Other	Investment mobilized	402086
Donor Agency	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Other	Investment mobilized	200000
Private Sector	Sociedad Nacional de Pesca Federación Gremial (Sonapesca F.G.)	Other	Investment mobilized	360800
Civil Society Organization	The Nature Conservancy (Chile)	In-kind	Investment mobilized	133920
Private Sector	Transmarina C.A.	Other	Investment mobilized	2000000

Private Sector	Fundación Tuna Conservation Group Tunacons.	Grant	Investment mobilized	500000
Private Sector	Fundación Tuna Conservation Group Tunacons.	Other	Investment mobilized	4500000
Civil Society Organization	World Wildlife Fund US (WWF)	In-kind	Recurrent expenditures	4647500
Civil Society Organization	World Wildlife Fund US (WWF)	Grant	Investment mobilized	1000000
Civil Society Organization	World Wildlife Fund Chile (WWF)	Other	Investment mobilized	174677
Recipient Country Government	Servicio Nacional de Pesca y Acuicultura (SERNAPESCA) Chile	Public Investment	Investment mobilized	1109276
Private Sector	Asociación de Mitilicultores de Chile (AMICHILE)	Other	Investment mobilized	548000
Recipient Country Government	Servicio Nacional de Pesca y Acuicultura (SERNAPESCA) Chile	In-kind	Recurrent expenditures	38582264
Civil Society Organization	World Wildlife Fund Peru (WWF)	In-kind	Recurrent expenditures	285000
Total Co-financing				**116,573,341.00**

Please describe the investment mobilized portion of the co-financing

The investment mobilized co-financing represents committed financial and in-kind resources from national authorities, private sector entities, civil society organizations, and international partners. These resources constitute the baseline investments that sustain national fisheries monitoring, traceability implementation, and value-chain compliance mechanisms in Chile, Peru, and Ecuador.

In accordance with the GEF-8 Co-Financing Policy, these investments finance tangible systems, infrastructure, operational capacities, and technological upgrades directly linked to project components and outputs. The GEF grant finances the incremental coordination, interoperability, regional harmonization, and scaling mechanisms required to generate global environmental benefits.

Public Sector Baseline Investments

The following national authorities provide mobilized investments in strengthening MCS and eCDT systems:

- Ministerio de Agricultura, Ganadería y Pesca (Ecuador)
- Ministerio de la Producción – PRODUCE (Peru)
- SERNAPESCA (Chile)

Across the three countries, national governments provide substantial in-kind and mobilized co-financing that forms the institutional, technological, and regulatory foundation for strengthening Monitoring, Control, and Surveillance (MCS) and electronic Catch Documentation and Traceability (eCDT) systems. These contributions mainly support Outputs 1.1.1–1.1.5 and 2.1.1–2.1.3, creating the enabling conditions for the uptake and institutionalization of eCDT solutions under Component 3.

Government co-financing includes maintenance and enhancement of national eCDT platforms (e.g., SIAP, SITRAPESCA), investment in digital infrastructure (servers, software, cybersecurity, and data integration), and operation of inspection and enforcement systems essential for monitoring, data validation, and compliance oversight. Governments also contribute personnel time including IT specialists, inspectors, analysts, and regulatory teams who ensure the continuous functioning, verification, and improvement of MCS and traceability processes.

These contributions reinforce the project's core outputs: comprehensive national assessments of existing systems (Output 1.1.1); development and implementation of updated National Action Plans for coordinated and interoperable eCDT systems (Output 1.1.2); establishment of cross-agency mechanisms to improve coordination and interoperability (Output 1.1.3); identification of sustainable financial models for long-term eCDT operation (Output 1.1.4); and modernization of national regulations aligned with global sustainability and market requirements (Output 1.1.5).

In addition, governmental institutions actively participate in regional cooperation processes, contributing technical personnel, meeting logistics, information exchange, and coordination within regional fisheries governance platforms. These contributions strengthen the regional mechanism for joint action against IUU fishing (Output 2.1.1), support implementation of the Regional Action Plan (Output 2.1.2), and enable learning exchanges and capacity-building activities that facilitate regional alignment of MCS and eCDT systems (Output 2.1.3).

Overall, government co-financing provides the backbone for the GEF project by ensuring operational continuity of national MCS/eCDT systems, strengthening coordinated institutional frameworks, aligning regulatory processes with international requirements, and supporting regional harmonization efforts. These sustained public-sector investments form the baseline upon which the GEF alternative builds to advance transparency, traceability, and sustainability across the fisheries of the Humboldt Current region.

Private Sector Investments Mobilized

Across Peru, Chile, and Ecuador, the private sector plays a central role in supporting the implementation and scaling of electronic catch documentation and traceability (eCDT) systems. Private-sector partners contribute in-kind and mobilized investments that collectively strengthen national coordination, improve industry practices, and enable real-world piloting of digital monitoring and traceability solutions. These contributions are aligned with Outputs 1.1.1–1.1.5 and 3.1.1–3.1.5, particularly those focused on assessments, stakeholder engagement, gender-responsive training, traceability pilots, and knowledge dissemination.

In Chile, private-sector associations including SONAPESCA and AmiChile provide logistical, technical, and coordination support to convene producers and fishery actors, organize workshops, and facilitate training activities across fisheries and aquaculture value chains. Their contributions strengthen national coordination and interoperability processes (Outputs 1.1.2–1.1.3), reinforce sector-wide engagement in capacity-building initiatives, and support readiness for traceability pilots in both capture fisheries and mussel aquaculture (Outputs 3.1.1–3.1.4). These efforts help ensure that national eCDT strengthening reflects real supply-chain needs and supports scalable adoption across the sector.

In Peru, contributions from seafood companies, restaurant groups, and value-chain initiatives strengthen national coordination and capacity building for eCDT adoption. Organizations such as CLS Perú, La Mar (Acurio Restaurants Group), PUCA, and COINREFRI provide support including technical outreach to artisanal fishers, training programs, provision of industry data, and facilitation of stakeholder engagement. Together, these investments reinforce participatory capacity-building strategies, strengthen multi-actor coordination mechanisms, support the implementation of eCDT training modules, and enhance market-driven incentives for traceable seafood (Outputs 3.1.1–3.1.2, 3.1.4–3.1.5, 1.1.2–1.1.3).

Ecuador's tuna and longline sectors provide substantial mobilized investments through organizations such as EUROFISH, Fresh Fish del Ecuador, Transmarina, EPESPO, and TUNACONS. Their contributions include the allocation of industrial and longline vessels for electronic logbook pilots, technical staff time, digitalization of observer data, and alignment with existing Fisheries Improvement Projects (FIPs). These investments directly reinforce field testing, operational validation, and scaling of interoperable eCDT and electronic monitoring solutions (Outputs 3.1.2–3.1.4). By leveraging ongoing FIP monitoring and sustainability efforts, Ecuador's

private sector enhances data reliability, strengthens compliance systems, and accelerates industry adoption of digital traceability tools (Outputs 3.1.1–3.1.3, 3.1.5).

A major regional contributor within the private sector is the FAIRR Initiative, (this engagement is a partnership between FAIRR, World Wildlife Fund (WWF-US), Planet Tracker, the World Benchmarking Alliance (WBA), and UNEP FI's Sustainable Blue Economy Finance Initiative), which mobilizes significant corporate investment through its Seafood Traceability Engagement. This Engagement catalyzes an estimated USD 9.6 million in private-sector equity investment from global seafood companies operating in Chile, Peru, and Ecuador, aimed at strengthening digital traceability infrastructure and GDST-aligned interoperability. Participating companies also provide in-kind recurring expenditures for system upgrades. These investments directly support adoption and scaling of eCDT solutions (Outputs 3.1.2–3.1.4) and reinforce interoperability improvements (Output 1.1.3). In addition, the Engagement contributes grant co-financing and technical advisory services to support GDST alignment and regional cooperation. This engagement is a partnership between FAIRR, World Wildlife Fund (WWF-US), Planet Tracker, the World Benchmarking Alliance (WBA), and UNEP FI's Sustainable Blue Economy Finance Initiative.

Overall, private-sector contributions across the region strengthen the enabling environment for interoperable traceability, enhance industry capacities, and provide the operational and market foundations needed for scalable adoption of eCDT systems supported by the GEF project by:

- Artisanal Fisheries Sector

The San José Fishing Cooperative, representing a fleet of approximately 200 artisanal vessels targeting jumbo flying squid, mahi-mahi, and shark, provides key in-kind co-financing that strengthens the participation of small-scale fisheries in national MCS and eCDT modernization efforts. The cooperative contributes vessel access, operational support, and fisher engagement to inform system assessments, validate documentation and inspection processes, and participate in eCDT capacity-building activities.

These contributions directly support the completion of the national MCS/eCDT system assessment (Output 1.1.1), stakeholder engagement for the development of coordinated and interoperable eCDT systems (Outputs 1.1.2–1.1.3), and implementation of participatory and gender-responsive training modules (Outputs 3.1.1–3.1.2). The cooperative also facilitates the testing and refinement of eCDT tools during traceability pilots (Output 3.1.4) by providing real operational contexts and feedback from artisanal fishers. This strengthens artisanal baseline capacity and enables effective integration into national eCDT systems.

Non-governmental organizations

Non-governmental organizations across the region provide important in-kind co-financing that strengthens national eCDT systems, enhances transparency initiatives, and supports community-level adoption of traceability practices. Their contributions collectively reinforce Outputs 1.1.1–1.1.5, 2.1.1–2.1.3, and 3.1.1–3.1.5, advancing institutional strengthening, capacity building, regulatory alignment, and dissemination of knowledge products across the fisheries value chain.

Future of Fish (Chile) strengthens artisanal fisheries by training fishers in the use of national traceability tools, supporting autonomous catch reporting, and promoting gender equity across coastal communities. These contributions support the participatory capacity-building strategy and gender-responsive training modules (Outputs 3.1.1–3.1.2) and reinforce coordination and interoperability mechanisms (Output 1.1.3).

Oceana Chile contributes technical analysis, advocacy, and capacity-building efforts across the value chains of common hake, macroalgae, and small pelagic fisheries. Their work strengthens national assessments and action planning (Outputs 1.1.1–1.1.2), supports the establishment of interoperability mechanisms (Output 1.1.3), and contributes to regulatory updates aligned with sustainability and market requirements (Output 1.1.5). Oceana Chile also reinforces stakeholder capacities through training and awareness initiatives in these value chains, directly supporting Component 3 through capacity-building and preparation for traceability pilots (Outputs 3.1.1 and 3.1.4).

Oceana Peru supports technical engagement, awareness campaigns, and capacity building on traceability, geolocation, and transparency in Peru's small-scale fisheries. These contributions reinforce the participatory capacity-building strategy (Output 3.1.1), strengthen gender-responsive training processes (Output 3.1.2), and enhance compliance and behavioral change in artisanal fleets. Oceana Peru also supports dissemination of knowledge products (Output 3.1.5).

The Nature Conservancy (TNC) Chile provides operational and technical assistance aligned with coastal fisheries governance and electronic monitoring initiatives. These contributions reinforce national coordination and interoperability mechanisms (Output 1.1.3), support national assessments and action planning (Outputs 1.1.1–1.1.2), and strengthen value-chain capacities linked to pilot implementation (Outputs 3.1.1 and 3.1.4).

These contributions strengthen institutional capacity and promote sustainable, transparent fisheries.

International and Technical Partners

International and technical partners contribute strategic in-kind co-financing through global standards development, digital innovation, policy advisory services, and regional governance support. These contributions reinforce Outputs 1.1.1–1.1.5, 2.1.1–2.1.3, and 3.1.1–3.1.5, strengthening both the technological and institutional baseline for scalable adoption of interoperable eCDT systems.

The Global Dialogue on Seafood Traceability (GDST) provides staff time and technical advisory services to support analysis of national eCDT systems (Output 1.1.3), assessment of international market requirements (Output 1.1.5), and strengthening of regional cooperation mechanisms (Outputs 2.1.1 and 2.1.3). This ensures alignment with global traceability and interoperability standards, reinforcing the technical baseline for the project.

The Global Food Traceability Center (GFTC) contributes in-kind recurring expenditures through development of an AI-based tool designed to digitize paper-based traceability documentation. This tool directly supports the assessment and modernization of national MCS and eCDT systems (Outputs 1.1.1–1.1.3), accelerates digital transition processes, and strengthens interoperability across participating countries.

The Save the Blue Five Project (GIZ) provides co-financing in in-kind to strengthen regional fisheries governance, species identification capacities, shark conservation action plans, and cross-country coordination mechanisms. These contributions reinforce regional cooperation and institutional capacity to combat IUU fishing (Outputs 2.1.1–2.1.3) and support value-chain training and traceability efforts under Component 3.

Together, they enhance digital modernization, promote global standards, and strengthen regional governance.

Executing Entity - WWF

As the executing entity, WWF—through WWF-US, WWF Chile, and WWF Perú—provides substantial grant and in-kind co-financing that supports all components of the project. These contributions include staff time, programmatic investments, operational resources, coordination capacity, and technical expertise that collectively strengthen the institutional, technological, and governance foundations required for effective implementation of eCDT and MCS system enhancements across the region.

WWF-US (Oceans Futures Program) contributes grant co-financing through recurring expenditures funded by partners such as the Walton Family Foundation and the Walmart Foundation. These investments support the development of traceability toolkits, capacity-building initiatives, and jurisdictional value-chain strengthening, while WWF-US staff provide technical oversight and facilitate cross-country integration of global best practices. WWF-US also mobilizes private-sector grant investment through its corporate partnerships, strengthening market-driven incentives for digital traceability adoption.

WWF Chile provides in-kind staff time, technical support, and operational resources that contribute to national traceability system strengthening and capacity building within key fisheries. Through projects focused on small pelagic fisheries and electronic monitoring, WWF Chile reinforces technical implementation, national coordination, and uptake of digital tools among value-chain actors.

WWF Perú contributes in-kind co-financing through staff time, office infrastructure, logistics, and engagement with national agencies. These resources support coordination, implementation, and monitoring across all components, including national eCDT interoperability processes, regional harmonization, and capacity-building activities in priority fisheries.

Together, the combined contributions of WWF-US, WWF Chile, and WWF Perú ensure coherent implementation, strengthen institutional and community capacities, facilitate regional collaboration, and reinforce the enabling environment necessary for scalable and sustainable adoption of interoperable eCDT systems.

In total, the project will mobilize over USD ~116 million in cofinancing, including cash, in-kind contributions, and grants. This unprecedented commitment from governments, private industry, civil society, artisanal fishers, international organizations, and gastronomy actors will drive a transformative shift toward transparency, traceability, and sustainability in regional fisheries. These Co-financing resources are not distributed uniformly across project components. Instead, they are strategically aligned with existing baseline investments and therefore concentrated in areas where partners already have active operations, such as traceability systems, value-chain investments, and pilot implementation support. For example, public-sector investments are

primarily associated with Component 1 (institutional strengthening and regulatory frameworks), while private-sector and partner contributions are concentrated in Component 3, supporting pilot implementation, testing, and operational validation of traceability systems.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator		Kelly West		kelly.west@un.org
Project Coordinator		Isabelle Vanderbeck		isabelle.vanderbeck@un.org

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

Please attach the Operational Focal Point endorsement letter(s) with this template.

Name of GEF OFP	Position	Ministry	Date (MM/DD/YYYY)
Edgar Heredia Salazar	Vice Minister of Environment	Ministry of Environment, Water and Ecological Transition – Ecuador	8/6/2024
Miguel Ernesto Stutzin Schottlander	Head, Office of International Affairs	Ministry of Environment – Chile	8/21/2024
Mauricio Gonzales Del Rosario	Head of the General Office of Cooperation and International Affairs	Ministry of Environment – Peru	9/5/2024

ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also paste below the Project Results Framework from the Agency document.

ANNEX C: PROJECT RESULTS FRAMEWORK*

Result / Output	Outcome / Output Indicators	Targets and Monitoring Milestones	Means of Verification	Assumptions and Risks

Objective: To strengthen national and regional electronic catch documentation and traceability systems (eCDT) in Ecuador, Peru, and Chile through the integration and improvement of governmental traceability frameworks, along with the adoption of international standards throughout the fisheries value chain.	**CI 5.1** (Fisheries under third-party certification that incorporate biodiversity considerations) **CI 7** (Shared aquatic ecosystems under new or improved collaborative management) **CI 8** (Overexploited global marine fisheries that have moved toward more sustainable levels) **CI 11** (People benefiting from GEF-funded investments disaggregated by sex)	Estimated totals during project implementation: **CI 5.1:** 3 certified fisheries **CI 7:** 1 Ecosystem (Humboldt Current) **CI 8:** 292,886 tons **CI 11:** 10,725 people (6,971 men, 3,754 women)	Mid-Term and Final Evaluation Reports Quarterly reports Websites and public awareness resources Publications	There will be no major external disruptions (e.g., corruption, political instability) that hinder the strengthening and effective implementation of eCDT systems. International markets will continue to demand certified and traceable products. Technical training programs will effectively improve the skills needed to manage and use eCDT systems. Sufficient financial resources will be available to support infrastructure improvements and capacity development. Infrastructure and technology systems will be maintained and regularly updated to remain functional. Active participation and commitment from the private sector and civil society. Governments will collaborate with each other and maintain diplomatic relations to exchange information and combat IUU fishing.

Outcomes	Outcomes Indicators	Baseline	Targets and Monitoring Milestones	Means of Verification	SDG Target(s)
Component 1: Strengthening and coordination of national eCDT systems					
Outcome 1.1: Strengthened, coordinated, and interoperable national eCDT syste	- Tons of landings from prioritized fisheries that are registered in strengthened, coordinated and	- Baseline value: 1,405 million tons registered in eCDT systems	- (Y4 Q4) 1,698 million tons registered	- Landings reports from national eCDT syste ms	SDG 14 - Life below water: 14.4, 14.7, 14.c

ms throughout the fisheries supply chain according to each country's needs and international market requirements	interoperable in national eCDT systems [1]	Each country already records landings from prioritized fisheries through its own digital systems (e.g., SITRAPESCA in Peru, SIAP in Ecuador, and traceability platforms in Chile). It is estimated that this volume of landings is currently monitored and registered through different types of eCDT tools and procedures depending on the fishery, institutional roles, and available digital capacities. However, these systems operate independentl y, with varying levels of coverage, integration, and data quality, and have not been strengthened to enable coordinated or interoperable eCDT data flows across institutions. The project seeks to expand and improve the registration of landings across prioritized fisheries, increase sustainability through better-quality data, and enable stronger coordination and interoperability within national eCDT systems, ultima tely contributing to reducing and combating illegal fishing and improving the long-term sustainability of fisheries.	in eCDT system s[2] Targets from this outcome and outputs link directly with Core Indicators 5.1 and 8		SDG 12 - Responsible consumption and production: 12.2 SDG 16 - Peace, justice a nd strong institutions: 16.4, 16.6 SDG 17 - Partnerships for the Goals: 17.14, 17.18
Output 1.1.1: A comprehensive assessment of MCS and eCDT systems completed in each country identifying gaps and opportunities Output 1.1.2: A National Action Plan developed and implemented to support the strengthening, coordination, and interoperability of eCDT systems in each country. Output 1.1.3: Coordination and interoperability mechanisms implemented in eCDT systems Output 1.1.4: Three Sustainable financial mechanisms identified to support the long-term strengthening of MCS and eCDT systems. Output 1.1.5: National regulations updated and aligned with global sustainability practices and international market requirements.					
Component 2: Strengthening regional cooperation to improve eCDT systems and support joint actions against IUU fishing					
Outcome 2.1: Regional cooperation mechanisms strengthened to support the coordination of national eCDT syste ms	- Number of joint actions[3] against IUU fishing facilitated thro ugh the regional cooperation mechanis ms	- Baseline value: 13 In recent years, countries in the region have participated in 13 high-level cooperation mechanisms to address IUU fishing, including: (i) three AMERP Regional Coordination Meetings; (ii) participation in FAO's GIES for the secure exchange of inspection data; (iii) the initial adoption of the	- At least 3 joint actions are implemented per year (after Y2) Targets from this outcome and its outputs link directly with Core	- Institutional communications, official publications, and meeting minutes confirming joint actions	SDG 14 - Life Below Water: 14.4, 14.c SDG 16 - Peace, Justice a nd Strong Institutions: 16.3, 16.4, 16.6 SDG 17 - Partnerships for the Goals:

		IORIS maritime coordination platform; (iv) the "PAR INDNR"[15] as a formal regional cooperation instrument; (v) two meetings of the PAR INDNR Scientific and Technical Committee; (vi) one binational workshop under the CPPS framework; (vii) three GALAPEX joint operations; and (viii) the RedPesca INDNR regional information platform. These efforts show increased engagement, but they remain occasional and dependent on available resources or specific opportunities. A structured, planned, and sustained regional mechanism for coordinated information sharing and joint actions is still lacking.	Indicator 7 and 8		17.14, 17.16, 17.18
Output 2.1.1: Regional cooperation mechanism is strengthened, updated, and operational to support joint actions against IUU fishing Output 2.1.2: Regional cooperation mechanisms strengthened to support the coordination of national eCDT systems Output 2.1.3: Learning exchange conducted to support the strengthening and coordination of MCS and eCDT systems in the fight against IUU fishing					
Component 3: Strengthening the capacities of actors throughout the entire fisheries value chain					
Outcome 3.1: Capacities of fisheries value chain actors strengthened for the use of eCDT systems.	a) Number of stakeholders that have their capacities strengthened to effectively use eCDT systems[4] b) Number of lessons learnt document that integrate social and economic perspectives from fishers and their families.	a) Baseline value: 0 b) Baseline value: 0 *Stakeholders in the fisheries value chain currently engage with different reporting and control practices, but these vary widely across countries and fisheries. There is no structured or tailored approach to help them shift toward the consistent use of eCDT systems. The project will introduce customized activities to build capacities and support this behavioural transition.*	a) (Y2 Q4): 1600 men, 400 women Y3 Q4): 3194 men, 806 women (Y4 Q2): 3768 men, 957 women b) (Y4Q2) One lessons learnt report Targets from this outcome and its outputs link directly with Core Indicator 11	a) List of participants that have been trained to effectively used eCDT systems (name, organization, sex, etc.) b) Report on lessons learnt of the traceability pilots that include social and economic perspectives-	SDG 4 – Quality Education: 4.3, 4.4, 4.7 SDG 5 – Gender Equality: 5.1, 5.5, 5.c SDG 8 – Decent Work and Economic Growth: 8.5, 8.8 SDG 10 – Reduced Inequalities: 10.2 SDG 14 – Life Below Water: 14.4, 14.7
Output 3.1.1: A participatory Stakeholder engagement and capacity-building strategy developed with incentives and enabling conditions to promote the effective use of eCDT systems and the adoption of international standards. Output 3.1.2: Gender-responsive eCDT training modules (basic, advanced, train-the-trainer) developed and implemented to promote effective use of eCDT systems.					

Output 3.1.3: Proposal to institutionalise the eCDT training modules developed for the three countries.

Output 3.1.4: Traceability pilots implemented in prioritized fisheries for each country

Output 3.1.5: Project results, including gender-responsive knowledge products, disseminated through IW: LEARN to support global learning and replication.

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount ($)		
	Budgeted Amount	Amount Spent To date	Amount Committed
PPG Design Experts	45,000.00	45,000.00	0.00
Gender Specialist	15,000.00	15,000.00	0.00
Stakeholder Engagement Specialist	15,000.00	15,000.00	0.00
Regional Coordinator	12,452.00	12,452.00	0.00
National Coordinators	40,600.00	40,600.00	0.00
Financial expert	8,855.00	8,855.00	0.00
Stakeholder consultations, meetings and workshops	63,093.00	63,093.00	0.00
Total	**200,000.00**	**200,000.00**	**0.00**

ANNEX E: PROJECT MAP AND COORDINATES

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

Location Name	Latitude	Longitude	GeoName ID
Manta	-0.9408	-80.7288	10,239,369

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
San Mateo	-0.9581	-80.8084	3,651,650

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Guayaquil	-2.2483	-79.9274	12,544,217

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Posorja	-2.7125	-80.2499	3,652,928

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Puerto Bolívar	-3.2559	-79.9996	12,440,248

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Puerto Pizarro	-3.8342	-80.0775	3,818,379

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Paita	-5.0792	-81.1084	3,694,112

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Bayóvar	-5.8222	-81.0297	3,699,393

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Chimbote	-9.0762	-78.6111	11,525,705

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Pucusana	-12.4922	-76.7998	8,350,082

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Pisco	-13.8156	-76.249	3,932,145

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Matarani	-17.0055	-72.1097	3,935,187

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Ilo	-17.7063	-71.3778	3,938,415

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Arica	-18.4746	-70.2979	3,899,361

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Iquique	-20.2133	-70.1519	3,887,127

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Huasco	-28.45	-71.2167	3,887,758

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Vallenar	-28.5762	-70.7594	3,868,633

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Coquimbo	-29.9699	-71.3491	3,893,629

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
San Antonio	-33.5947	-71.6075	3,872,395

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Caleta Cocholgue	-36.5908	-72.974	3,965,282

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Dalcahue	-42.3784	-73.6501	3,892,760

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Castro	-42.4824	-73.7643	3,896,218

Location Description:

Activity Description:

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.


N
Manta
San Mateo
Guayaquil
Puerto Pizarro
Posorja
Puerto Bolivar
Paita
Bayóvar
Chimbote
Pucusana
Pisco
Matarani
Ilo
Arica
Iquique
Huasco
Vallenar
Coquimbo
San Antonio
Caleta Cocholgue
Castro
Dalcahue
Quito
ECUADOR
Guayaquil
Chiclayo
PERÚ
Trujillo
Lima
Pacific Ocean
Andes
La Paz
BOLIVIA
Cochabamba
Santa Cruz de la Sierra
Sucre
Gran Chaco
San Miguel de Tucuman
Pampas
Córdoba
Mendoza
Rosario
ARGENTINA
CHILE
Concepción
SOUTH AMERICA
Pacific Ocean
Continental location
Leyenda
Location
International boundary
World Wildlife Fund, Inc.
Intervention area
0 90 180 360 540 720 Km
Spatial reference: GCS WGS 1984
Source: ICN, Esri, WWF-Peru
Credits: Planning, Monitoring, Evaluation, and Learning (PMEL)
Scale: 1:12,500,000
Date: 9/08/2025

ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

Attach agency safeguard datasheet/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts (as applicable).

Title

11674 Traceability - Annex F - SRIF - PRC clean

ANNEX G: BUDGET TABLE

Please upload the budget table here.

Annex G: Indicative Project Budget Template

Expenditure Category	Detailed Description	Component (USDeq.)							Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1	*Component 2*	*Component 3*	*M&E*	*Sub-Total*	*PMC*	Total (USDeq.)	
		Outcome 1.1	*Outcome 2.1*	*Outcome 3.1*					
PROJECT PERSONNEL COMPONENT									
Salary and benefits / Staff costs									
Regional Project Coordinator	Contribution to the implementation and supervision of Outputs 1.1.1, 1.1.2, 1.1.3, 1.1.4, 1.1.5, 2.1.1, 2.1.2, 2.1.3, 3.1.1, 3.1.2, 3.1.3, 3.1.4 and PMC	107,280	100,303	107,280		314,864	30,652	345,516	WWF Peru, WWF Chile and WWF Ecuador

Traceability and Interoperability Systems Specialist	Contributes to Outcome 1.1 by providing technical support for diagnostics, system design, and interoperability of national eCDT/MCS systems; to Outcome 2.1 by strengthening regional information-exchange and technical coordination mechanisms; to Outcome 3.1 by supporting the design and implementation of traceability pilots and system-aligned training	115,200	54,560	80,640		250,400		250,400	WWF Peru, WWF Chile and WWF Ecuador
Capacity Development and Knowledge Management Specialist	Contributes to Outcome 1.1 by supporting documentation and systematization of technical findings; to Outcome 2.1 by facilitating regional knowledge exchange and capturing lessons learned; to Outcome 3.1 by designing gender-responsive training modules, guidance materials, and capacity-building processes	68,400	88,400	91,200		248,000		248,000	WWF Peru, WWF Chile and WWF Ecuador

National technical support for Chile	Contributes to Outcome 1.1 by providing technical inputs for strengthening traceability, interoperability, and data validation in Chile's eCDT and MCS systems; to Outcome 3.1 by supporting stakeholder engagement, capacity-building activities, and the design and implementation of traceability pilots for priority fisheries and value chains (anchoveta, algae, mussel seed)	38,400		153,600		192,000	7,991	199,991	WWF Chile
National technical support for Perú	Contributes to Outcome 1.1 by supporting digitalization and enhancement of Peru's eCDT and MCS systems, including SITRAPESCA improvements, inspection modules, and smart monitoring tools; to Outcome 3.1 by providing technical assistance for stakeholder engagement, capacity building, and the design and implementation of traceability	45,600		173,280		218,880	9,120	228,000	WWF Peru

	pilots for anchoveta, giant squid, sharks, and landing-site monitoring technologies								
National technical support for Ecuador	Contributes to Outcome 1.1 by supporting analysis and alignment of national regulations and international market requirements (CITES and PSMA); to Outcome 3.1 by providing technical support for stakeholder engagement, capacity-building processes, and the design and implementation of traceability pilots in prioritized Ecuadorian fisheries (tuna, longline, pomada shrimp), including integration of logbooks, digital forms, and SIAP enhancements	57,600		218,880		276,480	11,520	288,000	WWF Ecuador
Administrative Staff	Finance support. Contribution to PMC through financial monitoring, expenditure tracking, and support to UNEP/GEF financial reporting.		20,000			20,000	125,383	145,383	WWF Peru

	Associate Logistics Officer. Contribution to PMC through logistical coordination for meetings, workshops, missions, and administrative arrangements. Accounting support. Contribution to PMC through accounting tasks, financial documentation, reconciliation, and preparation for audits.								
Subtotal Salary and benefits / Staff costs								**1,705,289**	
Contractual Services – Individual									
Local consultant: Policy and Governance Specialist	Policy and Governance Consultant. Contribution to Outcomes 1.1, 2.1 and 3.1 by supporting regulatory analysis, policy alignment with international market requirements, preparation of governance instruments for eCDT and MCS systems, and strengthening regional policy coordination under CPPS frameworks to harmonize standards, procedures and cooperation mechanisms across Chile,	23,273	48,964	18,618		90,855		90,855	WWF Peru, WWF Chile and WWF Ecuador

	Peru and Ecuador								
Local consultant: Gender Participation Safeguards Specialist	Gender Participation and Safeguards Consultant. Contribution to Outcomes 1.1, 2.1, 3.1 and 4.1 by leading gender-responsive actions, ensuring ESS safeguards compliance, supporting inclusive participation processes, and integrating gender/youth considerations across all outputs	23,273	60,439	18,618		102,330		102,330	WWF Peru, WWF Chile and WWF Ecuador
Local consultant: Communications specialist	Communications Consultant. Contribution to Outcomes 1.1, 2.1, 3.1 and 4.1 by developing communication materials, supporting awareness campaigns, documenting lessons learned, producing knowledge products, and contributing to IW:LEARN and public outreach.	34,909	65,945	27,927		128,782		128,782	WWF Peru, WWF Chile and WWF Ecuador

Int'l Consultant: Evaluator (Mid-term)(Terminal)	Independent Evaluator (Mid-term & Terminal). Direct contribution to Outcome 4.1 through independent assessment of project performance, relevance, effectiveness, efficiency, sustainability and lessons learned, including preparation of Mid-Term Evaluation and Terminal Evaluation reports in compliance with UNEP Evaluation Policy and GEF requirements				90,000	90,000		90,000	UNEP
Local consultant: Monitoring and Evaluation Specialist	Monitoring and Evaluation Consultant. Contribution across all outputs and direct implementation of Outcome 4.1 through results monitoring, progress verification, core indicator tracking, preparation of M&E reports, and coordination of mid-term and terminal evaluations	26,848	16,109	21,478	10,739	75,175		75,175	WWF Peru
Subtotal Contractual Services – Individual								**487,141**	

Travel									
Travel of Staff on official business	Missions to support participation in regional technical workgroup meetings to contribute to Output 2.1.1.1. Missions of PMU staff to contribute to Output 2.1.2.1 through participation in Regional Action Plan meetings and follow-up coordination. Missions of national stakeholders and officials to contribute to Output 2.1.2.1 by attending CPPS Scientific and Technical Committee workshops. Missions of fisheries inspectors and MCS staff to contribute to Output 2.1.3.1 through regional internships and technical exchanges. Missions of national focal points and technical staff to contribute to Output 2.1.3.2 by participating in regional eCDT workshops and coordination sessions. Missions of staff and focal points to	60,000	185,139	25,500	98,800	369,439		369,439	WWF Peru, WWF Chile and WWF Ecuador

	contribute to Output 3.1.4.4 through learning exchanges on pilot results. International missions for UNEP and PMU staff to contribute to Output 4.1.1 through monitoring visits to field sites.								
Subtotal Travel								**369,439**	
SUB CONTRACT COMPONENT									
Contract Services									
Commercial Contract Services: Specialized Diagnostics and Technical Analyses of MCS/eCDT Systems.	Specialized Diagnostics and Technical Analyses of MCS/eCDT Systems. Includes assessments, process mapping, and technical diagnostic studies (1.1.1.1; 1.1.1.3; 1.1.1.4; 1.1.3.3.)	445,476				445,476		445,476	WWF Peru, WWF Chile and WWF Ecuador
Commercial Contract Services: Strategic Planning, National Coordination Instruments, and Financial Sustainability.	Strategic Planning, National Coordination Instruments, and Financial Sustainability. Includes plans, roadmaps, planning mechanisms, and monitoring instruments in each country. (Outputs: 1.1.2.1; 1.1.2.3; 1.1.5.2; 1.1.4.1; 1.1.4.2)	492,000				492,000		492,000	WWF US, WWF Peru, WWF Chile and WWF Ecuador

Commercial Contract Services: Development, Enhancement, and Interoperability of National eCDT/MCS Digital Systems.	Development, Enhancement, and Interoperability of National eCDT/MCS Digital Systems. Includes services involving the development, upgrading, integration, and technical alignment of national eCDT/MCS systems and processes to ensure seamless information flows, compliance, and coordinated operations across institutions. (Output: 1.1.3.1; 1.1.3.2; 1.1.3.5; 1.1.3.6; 1.1.5.1)	862,000				862,000		862,000	WWF Peru, WWF Chile and WWF Ecuador
Commercial Contract Services: Electronic Monitoring, Remote Surveillance, and Field-Level Traceability Pilots.	Electronic Monitoring, Remote Surveillance, and Field-Level Traceability Pilots. Includes methodological development, digital monitoring tools, and field-based pilot implementations to strengthen operational control, verification, and traceability across fisheries and landing sites. (Outputs: 1.1.3.4; 3.1.4.1;	67,500		1,436,000		1,503,500		1,503,500	WWF Peru, WWF Chile and WWF Ecuador

	3.1.4.2; 3.1.4.3; 3.1.4.4)								
Commercial Contract Services: Regional Cooperation, CPPS Mechanisms, and Digital Coordination Platforms.	Regional Cooperation, CPPS Mechanisms, and Digital Coordination Platforms. Strengthening institutional, technical, and digital mechanisms that enable coordinated regional action among Ecuador, Peru, and Chile through the CPPS framework. This category includes support to governance bodies, enhancement of the regional cooperation platform, development of regional strategies, harmonization of data standards and protocols, and facilitation of peer-to-peer learning across countrie. (Outputs: 2.1.1.1; 2.1.1.2; 2.1.1.3; 2.1.2.1; 2.1.2.2; 2.1.3.1)		553,160			553,160		553,160	WWF US and WWF Peru
Commercial Contract Services: Stakeholder Engagement, Gender	Stakeholder Engagement, Gender Inclusion, and Capacity Institutionalizat			611,350		611,350		611,350	WWF Peru, WWF Chile and WWF Ecuador

Inclusion, and Capacity Institutionalization	ion Addresses inclusive participation, capacity development, gender-responsive training, and institutionalization of capacity-building systems across Ecuador, Peru, and Chile. (Outputs: 3.1.1.1; 3.1.1.2; 3.1.2.1; 3.1.2.2; 3.1.2.3; 3.1.3.1; 3.1.3.2)								
Commercial Contract Services: Evaluation, Knowledge Generation, and IW:LEARN Learning Products.	Evaluation, Knowledge Generation, and IW:LEARN Learning Products. Includes independent evaluations and the generation of knowledge outputs aligned with IW:LEARN and GEF knowledge-sharing requirements.(Output 4.1.2)				25,000	25,000		25,000	WWF US
Subtotal Contract Services								**4,492,486**	
TRAINING COMPONENT									
Training									
Training Personnel / Users	Training of fisheries inspectors and MCS staff to contribute to Output 2.1.3.1 through regional internships and technical exchange workshops to strengthen institutional		162,225		23,400	185,625		185,625	WWF Chile, WWF Peru and WWF Ecuador

	capacities against IUU fishing. Training of regional and national staff to contribute to Output 4.1.1 by strengthening reporting capacities and the use of M&E tools.								
Subtotal Training								**185,625**	
Meetings									
Fieldwork / Workshops (in Ecuador, Chile and Perú)	Organization of national validation workshops in Ecuador, Peru, and Chile to contribute to Output 1.1.1.2 by presenting, discussing, and validating the assessment results and recommendations. Organization of participatory validation workshops in Ecuador, Peru, and Chile to contribute to Output 1.1.2.2 by reviewing, adjusting, and validating the national planning instrument with stakeholders.	66,600				66,600		66,600	WWF Chile, WWF Peru and WWF Ecuador
Steering Committee and/or Working Group meetings	Support the functioning and travel participation of the Regional Steering Committee (RSC) to contribute to Output 4.1.1				118,650	118,650		118,650	WWF Chile, WWF Peru and WWF Ecuador

	through effective strategic governance and oversight.								
Meeting National	Organization of bi-annual national monitoring meetings in Ecuador, Peru, and Chile to contribute to Output 1.1.2.3 for tracking implementation of the planning instrument. Organization of periodic national review workshops in Ecuador, Peru, and Chile to contribute to Output 1.1.5.2 for updating MCS and eCDT policies and regulations.	210,600				210,600		210,600	WWF Chile, WWF Peru and WWF Ecuador
Meeting International	Organization of regional technical workgroup meetings to contribute to Output 2.1.1.1. Organization, facilitation, and support for travel participation in regional CPPS Scientific and Technical Committee workshops to contribute to Output 2.1.2.1. Organization of regional cooperation workshops, technical coordination sessions on eCDT systems,		112,390	36,000	19,950	168,340		168,340	WWF Chile, WWF Peru and WWF Ecuador

	and a regional women's workshop between Ecuador, Peru, and Chile to contribute to Output 2.1.3.2. Organization of learning exchange workshops with value chain actors, including women and youth, to contribute to Output 3.1.4.4. Organization of the project inception workshop and support for travel participation to contribute to Output 4.1.1.								
Subtotal Meetings								**564,190**	
SUPPLIES COMMODITIES AND MATERIALS									
Equipment and Furniture									
Equipment	Equipment for PMU, laptops includes keyboard, monitor and the office license						14,400	14,400	WWF Peru
Subtotal Equipment and Furniture								**14,400**	
MISCELLANEOUS COMPONENT									
Operating and Other Costs									
Operating Cost	Office costs for WWF Peru correspond to direct operating expenses associated with						121,430	121,430	WWF Peru

	project staff time (e.g., corporate software, accounting, personnel management systems).								
Subtotal Operating and Other Costs								**121,430**	
Reporting costs (publications, maps, NL)									
External Audit costs	External financial audit to contribute to Output 4.1.1 by providing an annual independent audit of project financial statements, ensuring compliance with UNEP/GEF fiduciary standards and supporting transparent financial reporting (USD 15,000 per year).						60,000	60,000	WWF Peru
Subtotal Reporting costs (publications, maps, NL)								**60,000**	
Grand Total		**2,744,959**	**1,467,634**	**3,020,373**	**386,539**	**7,619,505**	**380,496**	**8,000,000**	

[1] In exceptional cases where GEF Agency receives funds for execution, Terms of Reference for specific activities are reviewed by GEF Secretariat

Please explain any aspects of the budget as needed here

N/A

ANNEX I: 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.

ANNEX I: REPONSES to comments received from GEF Sec., STAP and Council

STAP review - Summary	Response at CEO ER
It emphasizes technology as a key element for addressing the problem, which is an innovative and promising approach, **but should not underestimate the governance dimension** of such technological approaches in order to ensure their uptake and their effective implementation, especially across countries.	While the project leverages digital traceability as an innovative entry point, the CEO Endorsement Request clearly recognizes that technology alone is insufficient to address IUU fishing. Accordingly, the project embeds eCDT systems within national regulatory frameworks, strengthens institutional capacities of fisheries authorities, promotes regional governance cooperation across Chile, Peru, and Ecuador, and addresses social and compliance-related governance risks through stakeholder engagement and safeguards mechanisms. This integrated approach ensures that technological solutions are effectively governed, adopted, and sustained across countries, directly responding to STAP's recommendation.
However, there is some room for **improvement of the document and the underlying project design, in particular** **with regards to future narratives, the baseline description and the different components and related outcomes,** **outputs and activities**	The CEO Endorsement Request presents a clear and coherent baseline and future narrative, and clearly articulates the project's components, outcomes, outputs, and activities. The baseline establishes the existing institutional and technical context and the rationale for GEF intervention, while the future narrative explains how strengthened national systems, regional cooperation, and capacity-building will jointly deliver governance and enforcement outcomes. The component structure is logical and internally consistent, and the level of detail provided on outputs and activities is appropriate for a regional, systems-focused project at CEO Endorsement stage.
there is **a lack of consideration of governance issues** – it is clear how eCDT systems are helpful in tracking fish catch and allowing for better understanding the chain from the sea to the final consumer and thus are helpful in addressing the problem, but it remains insufficiently clear how other hurdles, especially those relating to governance (lack of regulation of IUU fishing and coordination of it across countries) and , in particular, enforcement, are dealt with.	While the project leverages eCDT systems as a technical entry point, the CEO Endorsement Request clearly addresses governance and enforcement challenges by embedding these systems within national regulatory and enforcement frameworks, strengthening institutional capacity of fisheries authorities, and promoting regional coordination to address transboundary IUU fishing. Enforcement is addressed operationally through improved monitoring, control, and surveillance functions, inspections, and compliance mechanisms

	supported by official government systems. The project does not seek to replace regulatory or enforcement mandates, but rather to strengthen their effective implementation and coordination across countries.
The document would benefit from **clarifying how eCDT systems can also** **help addressing the fact that at least some actors benefit from IUU fishing and have little incentives for changing** **this behavior, and how the project aims to address this**.	The document explicitly recognizes that IUU fishing persists because, for some actors, the economic benefits of non-compliance outweigh the risks due to low detection and weak enforcement. It explains that eCDT systems are designed to change these incentives by increasing the certainty of detection, reducing opportunities for document falsification and laundering of illegal catch, and linking verified legality to access to key international markets. By integrating eCDT with national enforcement systems, regional verification mechanisms, and international market requirements (EU catch certification, SIMP, CDS, PSMA, CITES), the project makes continued participation in IUU fishing economically less attractive while rewarding compliance through maintained or improved market access. In addition, the project complements technology with regulatory alignment, regional cooperation, and stakeholder engagement strategies that include incentives and enabling conditions to promote adoption, thereby addressing both the behavioral drivers of IUU fishing and the governance context in which they operate.
STAP review – Project rationale	
Problem: However, a little more emphasis could be put on the environmental issues (declining fish populations due to IUU fishing), also as an issue themselves/valuing the environmental dimension, not only as an input to food security and the economies and thus the socioeconomic dimension of the problem, especially in light of GEF's focus on environmental benefits	The document consistently frames IUU fishing as a **direct environmental problem**, explicitly highlighting declining fish populations, overexploitation, biodiversity loss, and ecosystem degradation in the Humboldt Current as core issues in their own right. It emphasizes impacts on stock biomass, vulnerable and migratory species, habitat integrity, and ecosystem resilience, and clearly links project outcomes to **Global Environmental Benefits**, including conservation and sustainable use of marine biodiversity, improved management of shared marine ecosystems, and enhanced resilience to climate change. While socioeconomic and food security benefits are also discussed, the environmental dimension is clearly articulated and aligned with GEF's

	mandate, rather than treated solely as an input to economic or social outcomes
Baseline: a refered to Annex 1 is not attached.	It was in the portal road map section.
The document also refers to **past GEF projects and other activities**, aiming at building on previous efforts, which is highly appreciated. However, it would be useful to know why these projects have not (or not sufficiently) managed to address the problem and what this project will do differently to ensure that it will be successful (why does this project think it can be successful in comparison to the other projects/what will be different).	The document explicitly reflects on past GEF and related initiatives (e.g., Humboldt I & II, CFI, Beyond 30x30, national traceability pilots) and explains that, while they generated important advances and lessons, they did not sufficiently address the problem due to fragmentation, limited interoperability, pilot-level scope, weak regional coordination, and insufficient integration of governance, incentives, and enforcement. The CEO ER clearly explains what this project will do differently: it adopts a **systems-level approach** that links national eCDT systems, embeds them in regulatory and enforcement frameworks, institutionalizes regional cooperation for joint verification, explicitly addresses incentive structures and informality, and focuses on scalability and sustainability rather than stand-alone pilots. This comparative analysis and articulation of added value demonstrates why the project is expected to be more effective than previous efforts
description of future narratives could be improved	See above response on the same
In this context, it would be good to more **clearly address** the **underlying governance and regulation problem**, which – as highlighted in the problem description – is crucial.	See above response on the same
The **project design** is quite well thought through; however, **individual outcomes and outputs could benefit from improvement, also in relation to each other**	See above response on the same
output 1.1.3 refers to policies and legal instruments recommendations – does this mean that the project will make active efforts to improve the current governance framework (and if so, how exactly) or is this more a	The document clarifies that Output 1.1.3 goes beyond knowledge generation or non-binding recommendations: it involves **active efforts to improve national governance frameworks** through the development, updating, and

knowledge generation activity/suggestion, and how does this relate to **component 2**, which focuses on governance aspects and aims at harmonization, a much higher level of cooperation and with more legal bindingness than more policy recommendations.	implementation of concrete regulatory and institutional arrangements that enable interoperability and effective use of eCDT systems. These efforts include supporting regulatory updates, formal coordination mechanisms among competent authorities, and the operationalization of agreed procedures within national systems. Component 2 complements this work at a higher level by focusing on **regional governance**, strengthening legally grounded cooperation, joint verification, and harmonization across countries. Together, Components 1 and 2 are presented as mutually reinforcing: Component 1 strengthens and operationalizes governance at the national level, while Component 2 elevates these reforms into coordinated, regionally aligned, and more binding cooperation frameworks, rather than duplicating or limiting actions to policy recommendations alone.
output 2.1.2 could benefit from clarification with regards to who will share data and on the basis of which systems (and will such data sharing be mandatory – if so, how will this be ensured, especially in light of the fact that one issue with IUU fishing is the illegal nature and related the reluctance of some actors to share any data)	The document clarifies that data sharing under Output 2.1.2 will take place **among competent public authorities** (fisheries, enforcement, customs, sanitary and maritime authorities) using **existing and strengthened national eCDT and MCS systems**, rather than relying on voluntary data provision by potentially non-compliant actors. Data sharing is grounded in **regulatory mandates and institutional responsibilities**, with eCDT systems designed to make reporting and verification a required part of legal operations and market access. The CEO ER also explains that regional data exchange will be implemented through **formal cooperation mechanisms and agreed protocols** under existing regional bodies (e.g. CPPS and RFMOs), ensuring standardized, secure, and routine exchange of verified data. By embedding data sharing in legally required national systems and linking compliance to enforcement and trade controls, the project addresses reluctance by illegal actors not through voluntary disclosure but by increasing detection, cross-verification, and the cost of non-compliance
In this context, it is also important to reconsider whether outputs under certain outcomes and thus components indeed contribute to the	The document makes clear that Component 3 does **not rely solely on voluntary participation through capacity building or workshops**, but embeds industry engagement

outcome and are sufficient to achieve it; for instance, in **component 3**, it is assumed that capacity building, workshop participation and documenting results will lead to industry engagement; however, it can be doubted that certain industry actors – especially those benefitting from the current IUU fishing situation – will be interested and willing to engage. The question is thus how will the project ensure that all relevant industry actors participate and engage.	within **mandatory regulatory, enforcement, and market-access frameworks**. The CEO ER explains that engagement is ensured by linking eCDT use to **legal compliance requirements, enforcement actions, and access to international markets**, rather than assuming willingness from actors benefiting from IUU fishing. Capacity-building activities are explicitly combined with incentives, enabling conditions, and pilots that demonstrate concrete operational and commercial benefits, while non-compliant actors face increased detection and exclusion from formal value chains. In this way, the project ensures engagement by reshaping incentives and obligations across the industry, rather than depending only on goodwill or voluntary participation.
The project attempts to be **transformative** by addressing the root causes of IUU fishing. This is very ambitious. A little more emphasis could be put on clarifying how exactly this transformation will be achieved,	The document clearly explains how the project's transformative ambition will be achieved by explicitly linking **root causes of IUU fishing** (economic incentives, governance weaknesses, fragmented systems, low detection probability, and informality) to a **systems-level transformation approach**. It details how transformation will occur through interoperable national eCDT systems, legally embedded data requirements, strengthened enforcement and regional verification, and market-access conditionality, combined with capacity development and institutional coordination. The Theory of Change further clarifies the causal pathway from digitalization and interoperability to increased detection, changed incentives, stronger governance, and sustained reductions in IUU fishing, thereby making the transformative logic explicit rather than aspirational.
The project describes relevant **stakeholders** and their roles clearly. However, it seems that at least some of these stakeholders have an interest in maintaining existing practices (also described in the barriers, such as resistance to change) – which relates to the question on governance of how the project will ensure that more tracability indeed leads to less IUU fishing in light of other factors shaping	The document explicitly recognizes that some stakeholders benefit from existing practices and may resist change, and it explains that the project does **not assume that traceability alone will automatically reduce IUU fishing**. Instead, it clarifies that traceability is embedded within a broader governance framework that combines **mandatory regulatory requirements, enforcement, regional data verification, and market-access conditionality**. By increasing the certainty of detection, reducing opportunities to launder illegal catch, and linking compliance to legal operation and access to key export markets, the

actors' behavior.	project directly addresses behavioral incentives that sustain IUU fishing. Capacity building and stakeholder engagement are therefore presented as complementary measures, not substitutes for governance and enforcement, ensuring that improved traceability translates into real behavioral change and measurable reductions in IUU fishing.
more details on how **M&E** will be done under component 4 would be beneficial, especially with regards to clarifying how information will be collected from relevant stakeholders and organizations and feed into the project's M&E – also in relation to learning and knowledge exchange opportunities.	The document clarifies that Component 4 includes **structured monitoring and evaluation arrangements** that draw on data generated through national eCDT systems, participating public authorities, and project partners, complemented by stakeholder reporting from pilots, training activities, and regional cooperation mechanisms. It explains that information will be systematically collected, analyzed, and reported through regular monitoring, mid-term and terminal evaluations, and documented learning products. In addition, the CEO ER explicitly links M&E with **knowledge management and learning**, ensuring that results, lessons learned, and good practices are fed back into adaptive project management and shared through regional exchanges and coordination platforms, rather than remaining a purely reporting-focused exercise.
The **gender** dimension is underrepresented in the outcomes and outputs, hardly mentioned at all (only in output 3.1.4 and a little bit in 3.1.2). It should at least be clarified what the role of gender aspects is in the IUU fishing problem and what the project does to address those (even if it is little and there are reasons for this, it should be clarified)	e document explicitly includes a dedicated **Gender Equality** section and clarifies that gender is treated as a **cross-cutting issue** linked to informality, access to benefits, and participation in fisheries governance rather than as a primary driver of IUU fishing itself. It explains that women play key but often underrecognized roles in post-harvest activities (processing, marketing, administration) and that limited access to training, digital tools, and decision-making spaces constrains their engagement in traceability systems. The project responds by integrating **gender-responsive capacity building**, targeted training modules, inclusive stakeholder engagement strategies, and measures to ensure women's participation and benefit-sharing across components, particularly under Component 3. While gender is not positioned as the core causal factor of IUU fishing, the CEO ER clearly justifies its role and explains how the project addresses

	gender gaps in adoption, participation, and benefits in a proportionate and transparent manner
More baseline data could be useful in order to better understand whether certain objectives are actually feasible (for instance, component 1 aims at an eCDT systems coverage of 100% of all landings, however, with no data on the current state/baseline and the gap analysis is to be done only as part of the project, it is difficult to estimate whether this is feasible at all, if coverage is very low now – or whether it is maybe very easy to achieve, if current coverage is high, with at least Peru and Chile seeming to have already high % of tracability).	The document provides **substantial baseline information** on the current level of eCDT and MCS coverage in Ecuador, Peru, and Chile, including quantitative data on inspection rates, digital reporting, certified landings, and system coverage by fleet and fishery. It clarifies that coverage is already **high in several industrial segments**, particularly in Peru and Chile, while **significant gaps persist in artisanal fisheries**, which are the main focus of the project. The CEO ER also explains that the initial gap analysis under Component 1 is intended to **refine and operationalize country-specific pathways** toward full coverage, rather than to determine feasibility from scratch. This combination of existing baseline data and targeted gap analysis demonstrates that the 100% coverage objective is **context-specific, phased, and grounded in current conditions**, addressing STAP's concern regarding feasibility and ambition.
Some **governance elements** (especially relating to component 2) could benefit from clarification with regards to what will be done exactly; for instance, component 2 aims at strengthening regional cooperation and policy coherence, including the development of a cooperation mechanism, but does not clarify what such mechanisms would be and what its purpose is (is it a coordination mechanism of limited institutionalization and bindingness or is it a real organization that has decision-making and potentially enforcement powers (as somewhat implied in output 2.1.3) – each will require different steps, stakeholder engagements, etc.); clarifying this before the start of the project will be crucial to design the right steps and activities, but also to monitor progress appropriately.	The document clarifies that Component 2 does **not propose the creation of a new supranational body with enforcement powers**, but rather the **strengthening and operationalization of formal regional cooperation mechanisms within existing institutions** (notably CPPS and relevant RFMOs). It specifies that the cooperation mechanism will focus on **structured coordination, agreed protocols for data exchange and joint verification, technical committees, and regularized collaboration**, rather than legally binding enforcement authority. The CEO ER therefore positions the mechanism as an **institutionalized coordination and harmonization platform**, with clearly defined purposes and activities aligned with existing mandates, allowing realistic design, stakeholder engagement, and monitoring of progress while avoiding overreach beyond countries' legal competencies.
It is appreciated that the project document also identifies relevant regional and international agreements of relevance to the problem. However, there could be a little **more clarification how which**	The document goes beyond listing relevant regional and international agreements by **explicitly explaining how existing mechanisms will be used and operationalized**. It clarifies that the project will

of those existing mechanisms will be used (and how) to address the problem and how the project intends to cooperate with those.	work through established platforms and mandates—such as CPPS, RFMOs (IATTC, SPRFMO), PSMA, CITES, and market-related traceability schemes (EU, SIMP, CDS)—to enable structured data exchange, joint verification, policy alignment, and coordinated actions against IUU fishing. Rather than creating parallel arrangements, the project is designed to **embed eCDT systems and cooperation activities within these existing mechanisms**, ensuring complementarity, avoiding duplication, and strengthening their practical implementation through concrete protocols, technical committees, and regular coordination processes

GEF Council comments	CEO ER responses
Germany Comments: we recommend that their **structural integration into the project could be stronger.** Currently their role in the proposal appears to be limited to the function of data providers neglecting their essential socio-economic role in these countries. Germany suggests including a robust path **how the project will respond to the needs of fishers with limited technological affinity and access, who are likely excluded in many situations under present conditions of low connectivity in rural areas and how to ensure equitable long-term access to eCDTs and the** **data generated for actors in artisanal fisheries**.	The document explicitly recognizes that artisanal fishers are **not merely data providers**, but central socio-economic actors whose effective inclusion is essential for project success. It explains that the project will respond to limited technological affinity and low connectivity through **tailored, low-connectivity eCDT solutions**, user-friendly tools, and **targeted capacity-building and training**, including train-the-trainer approaches and pilots adapted to artisanal contexts. The CEO ER also emphasizes equitable access by integrating artisanal fisheries into national traceability systems, supporting formalization pathways, and ensuring that data generated through eCDTs are accessible and beneficial to fishers themselves (e.g. for legality verification, market access, and recognition of sustainable practices). In this way, the project goes beyond data extraction and addresses inclusion, accessibility, and long-term equity for artisanal fisheries within the digital transition.
Germany Comments: Germany **strongly suggests to rely on small-scale fisheries and gender-sensitive guidelines i**n the development and implementation of the proposal, foremost the **2014 FAO Voluntary**	The document explicitly aligns the project with **FAO normative frameworks for sustainable and inclusive fisheries**, including principles consistent with the **2014 FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines)**. It treats small-scale fisheries and gender equality as

Guidelines for Securing sustainable small-scale fisheries in the context of poverty eradication and food security and related relevant handbooks in support of them.	**cross-cutting priorities**, emphasizing inclusion, equitable access to benefits, participation in governance, and tailored capacity building for artisanal actors with limited technological access. Gender-responsive training, stakeholder engagement strategies, and formalization pathways for small-scale fisheries are embedded particularly under Component 3, ensuring that eCDT implementation supports poverty reduction, food security, and social equity in line with FAO guidance, rather than applying a purely technical or industrial model.
Germany Comments: Germany welcomes the proposal to include women through 50% gender-balanced training. However, considering that gender inequality is identified as one of the key barriers, Germany **suggests integrating gender considerations more structurally in its proposal, outlining how the proliferation of eCDT systems could act as a structural vehicle to empower** **women and ensuring gender-inclusive eCDT tools.**	The document goes beyond numerical gender targets and explains that gender is treated as a **cross-cutting, structural consideration** in the design and rollout of eCDT systems. It clarifies how eCDTs can act as a **vehicle for women's empowerment** by increasing visibility and formal recognition of women's roles in post-harvest activities (processing, marketing, administration), improving access to training, information, and market opportunities, and reducing exclusion linked to informality. The CEO ER also commits to **gender-responsive eCDT tools and capacity-building approaches**, including inclusive system design, tailored training, and stakeholder engagement mechanisms that ensure women can effectively access, use, and benefit from digital traceability systems. In this way, gender is integrated structurally into the project logic, not only through participation targets but through how eCDTs are implemented and used.
Germany Comments: Germany suggests considering the **integration of additional system benefits right from the start**, e.g. monitoring for climate change impact and worker welfare at sea, to integrate synergies with climate change adaptation and social improvements.	The document clarifies that eCDT systems are designed as **multi-purpose digital platforms**, not limited to legality verification, and explicitly notes their potential to generate **additional co-benefits**. It explains that data generated through eCDTs will support **adaptive fisheries management and climate resilience** by improving information on catches, effort, species trends, and ecosystem conditions, thereby contributing to climate change adaptation outcomes. The CEO ER also highlights that strengthened traceability and digital monitoring improve **transparency, accountability, and working conditions**

	across the value chain, creating enabling conditions for better oversight of labor practices and welfare at sea. While IUU fishing and biodiversity remain the primary focus, the document clearly positions eCDTs as a foundation for integrating climate and social synergies over time, in line with GEF priorities.
Germany Comments: **Corruption** in the fisheries sector is mostly linked to illegal, unreported, and unregulated (IUU) fishing, affecting the entire fisheries value chain. This encompasses corrupt activities such as obtaining fraudulent licenses, falsifying records, and evading inspections. Chile, Ecuador, and Peru have all experienced corruption cases within their fisheries sectors. Germany recommends **including corruption risk assessments** and the development of mitigating measures in the project designs at country level, giving local civil society stakeholders a role in planning and monitoring. Germany also recommends using transparency standards and principles like the Fisheries Transparency Initiative (FiTI) to achieve a responsible fisheries governance and to reduce upcoming corruption risks. UNODC´s guide on addressing corruption in the fisheries sector (2019) helps policymakers identify and address corruption risks in fisheries management, raise awareness among authorities, and provide strategies to reduce and prevent corruption.	The document explicitly recognizes corruption as a risk linked to IUU fishing and addresses it through **systemic transparency and governance measures**, rather than treating it as a stand-alone issue. It explains that eCDT systems reduce opportunities for corruption by **digitalizing processes, minimizing discretionary decision-making, and creating auditable records** across the value chain. The CEO ER also highlights the role of **civil society participation and multi-stakeholder engagement**, notably through alignment with and use of **Fisheries Transparency Initiative (FiTI) principles**, including public access to information and stakeholder oversight. While a formal corruption risk assessment is not presented as a separate tool, the project embeds **preventive anti-corruption measures** through transparency standards, interoperable systems, institutional coordination, and stakeholder monitoring mechanisms, consistent with guidance such as UNODC's approach to addressing corruption in the fisheries sector.
United Kingdom Comments (Ecuador): However, some critical issues were overlooked in the project proposal:	The CEO Endorsement Request does not explicitly refer to **organized crime or coercion of artisanal fishers in Ecuador** as a distinct risk factor. However, it does address the issue **indirectly** by acknowledging high levels of informality, weak governance, low detection probability, and enforcement gaps that enable illegal activities, and by proposing eCDT

Organized crime: coastal areas in Ecuador have faced persistent poverty and inequality, leaving local communities, especially artisanal fishers highly vulnerable to exploitation by organized crime groups. Over recent years, these groups have significantly expanded their influence, coercing artisanal fishers into illegal activities. This poses a risk to the successful implementation of the project. The project proposal did not address how this risk will be mitigated.	systems integrated with enforcement, regional verification, and market controls to reduce opportunities for illegal operations. While these measures may help limit space for organized criminal activities by increasing transparency and traceability, the CEO ER does not explicitly articulate targeted risk mitigation measures (e.g. protection of vulnerable fishers, safeguards against coercion, or coordination with security and justice actors) specific to organized crime in Ecuador.
United Kingdom Comments (Ecuador): Hence, to strengthen the project design and ensure success, it is recommended to **establish partnerships and cooperation with security authorities and other relevant stakeholders** to develop strategies to manage this risk.	While the project describes cooperation with fisheries, maritime, customs, and enforcement authorities for MCS, traceability, and control, it does **not explicitly include partnerships with security authorities or justice actors to address organized crime risks**, nor does it outline specific strategies to manage coercion or criminal influence over artisanal fishers in Ecuador. Any mitigation of such risks is **implicit and indirect**, through strengthened traceability and enforcement, rather than through targeted collaboration with security institutions.
United Kingdom Comments (Ecuador): Artisanal fishers and digital divide. The project proposal emphasizes that these eCDT systems will be implemented all over the value chain and that artisanal fishers will play a central role in the establishment of this system as primary data providers. **However, longstanding poverty has significantly limited these actors' access to technological tools, creating barriers that could impede their effective participation**. **The project proposal** **does not specify how this challenge will be addressed**. Despite their critical importance to the project's success.	The document explicitly recognizes the **digital divide affecting artisanal fishers**, including limited access to technology, connectivity constraints, and low digital literacy linked to poverty and remoteness. It explains that the project will address these barriers through **tailored, low-connectivity and user-friendly eCDT solutions**, provision of enabling conditions (equipment, simplified interfaces), and **targeted capacity-building and training** adapted to artisanal contexts. The CEO ER also emphasizes pilot testing in priority fisheries and locations to ensure tools are fit for purpose and inclusive, thereby enabling meaningful participation of artisanal fishers as more than data providers and ensuring their effective integration into eCDT systems.

United Kingdom Comments (Ecuador): To enhance project's effectiveness, it is recommended to **establish partnerships with organizations specialized in building technological capacity**. Such partnerships could help bridge the digital divide so that artisanal fisher can actively engage with and benefit from the system.	The CEO Endorsement Request recognizes the need to build technological capacity among artisanal fishers and proposes tailored training, low-connectivity solutions, pilots, and partnerships with implementing agencies, NGOs, and technical partners (including WWF and technology providers) to support adoption of eCDT systems. However, it does **not explicitly specify partnerships with specialized digital-capacity–building organizations** as a distinct design element. The response to this risk is therefore implicit—through capacity building and pilot implementation—rather than articulated as a dedicated partnership strategy to bridge the digital divide.
United Kingdom Comments (Ecuador): These countries have been particularly affected by Chinese DWFs in the region, impacting enormously their marine ecosystems and even restricting access to markets that require transparency in their imports (just like Ecuador's case with the EU). Thus, projects like this that aim at improving coordination in cooperation efforts to enhance transparency, governance and enforcement in catch reporting are crucially needed to support the fisheries sector, so crucial for all three countries' economies and employment.	While the document does not single out **Chinese distant water fleets by name**, it explicitly recognizes the growing pressure from **foreign and distant-water fishing fleets**, the transboundary nature of IUU fishing, and the resulting impacts on marine ecosystems and market access. The CEO ER explains that the project's core rationale is to strengthen **regional coordination, transparency, governance, and enforcement**, including interoperable eCDT systems, joint verification, and cooperation through regional bodies and RFMOs, precisely to address risks posed by distant-water fishing and to safeguard access to markets with strict traceability requirements such as the EU. In this way, the project directly responds to the concern, even if specific fleets are not explicitly referenced.
United Kingdom Comments (Chile): There are two **contentious/political issues** which we think worth mentioning (below), however **we don't think these issues should not affect the proposed program.** The importance of addressing illegal fishing in Chile in future programs. For instance, 456 tons of illegal catch were seized in 2022. This has significant consequences for marine	The document explicitly highlights the **environmental impacts of illegal fishing in Chile**, including stock depletion, habitat degradation, and ecosystem impacts, and positions strengthening traceability and enforcement as essential responses. It also acknowledges **governance and trust challenges** in the fisheries sector, including the need for transparency, reduced discretion, and stronger institutional legitimacy—issues directly relevant to the context of legislative reform and past corruption concerns. While the CEO ER does not comment on the ongoing parliamentary debate or specific quota provisions, it clearly aligns the project with

ecosystem conservation. Illegal fishing depletes fish populations, destroy marine habitats and distorts competition (as well as reduces the tax income for the Chilean state). Currently, the senate is discussing a fishing bill (approved in October by the lower house). This proposed law sets quotas between the artisanal and industrial fishing sectors, regulates and limits trawling (categorized as a practice with significant negative consequences for the marine ecosystem), among other proposed measures. The fishing bill also seeks to restore trust, as the current fishing law was marred by a corruption scandal (traffic of influence), which has undermined its legitimacy.	Chile's evolving regulatory framework and reform agenda by supporting modernized, transparent, and accountable fisheries governance systems that help restore trust and support environmentally sustainable management.

GEF SEC comments	Responses at CEO ER
20 Sept 2024 (ahume): a) Please provide a plan to conduct a social assessment and develop a social risk management plan during the PPG stage (see ESS comment above)	As reflected in the UNEP approved SRIF at CEO ER, a targeted Social Assessment and an integrated Social Risk Management Plan will be completed during early project implementation, building on existing PPG stakeholder consultations, the Gender Plan, and the Stakeholder Engagement and Response mechanisms. This targeted **Social Assessment** will be undertaken during the early implementation phase to further refine the understanding of potential social impacts associated with the digitalization of fisheries traceability systems. This assessment will build on the consultations conducted during project preparation and will focus on risks related to exclusion, affordability, informality, gender disparities, labor conditions, and adaptive capacity of artisanal fishing communities.

	Specifically, this focused Social Assessment will be conducted during project inception to validate assumptions made at the design stage and to identify any differentiated social risks or unintended impacts. Based on the findings, a Social Risk Management Plan will be finalized, integrating mitigation measures, capacity-building actions, gender-responsive approaches, and monitoring indicators, in line with UNEP's Environmental, Social and Sustainability Framework. The results of this assessment will inform an integrated **Social Risk Management Plan**, which will consolidate existing mitigation measures, stakeholder engagement actions, and grievance mechanisms already embedded in the project design.
15 October 2024 (ahume): In addition to the above, please also note: b) Please ensure key stakeholders, including local communities, local fisherfolk and fishing organizations, and private sector entities, are closely consulted for all three participating countries. It will be expected by CEO Endorsement that there is clear evidence and contributions from these stakeholders into the project's final design.	The project demonstrates that key stakeholders — including local communities, artisanal fisherfolk and fishing organizations, government authorities, and private sector entities — were closely consulted during project preparation in Chile, Peru, and Ecuador. These consultations generated substantive inputs that are clearly reflected in the project's final design, including its phased and voluntary approach to digital traceability adoption, its strong emphasis on capacity-building, and the inclusion of safeguards to address risks of exclusion and economic burden. By CEO Endorsement, stakeholder engagement is institutionalized through a dedicated Stakeholder Engagement Plan and a formal grievance mechanism, providing clear evidence of meaningful consultation and incorporation of stakeholder contributions.
c) Please continue to ensure that gender dimensions are prioritized throughout the project design per GEF policy.	Gender dimensions are prioritized throughout the project design in line with the GEF Gender Equality Policy. The project is informed by a gender assessment and guided by a dedicated Gender Action Plan, identifies and mitigates gender-specific risks—particularly related to labor conditions and gender-based violence—and mainstreams gender-responsive measures across stakeholder engagement, capacity-

	building, and safeguards instruments. By CEO Endorsement, gender equality is fully integrated into project implementation, monitoring, and grievance mechanisms.
d) Please continue to improve the project's final design to ensure that the project deliverables directly contribute to/feed into national and regional IUU enforcement.	By CEO Endorsement, the project ensures that its deliverables directly contribute to national and regional IUU enforcement. The project strengthens and interoperates official national eCDT systems used by fisheries authorities in Chile, Peru, and Ecuador; generates enforcement-relevant data to support inspections, compliance, and sanctions; and promotes regional cooperation and information-sharing to address transboundary IUU fishing. Capacity-building activities further ensure that traceability outputs are operationally used by enforcement agencies, fully aligning project outcomes with national and regional IUU enforcement frameworks.
e) Please continue to define co-financing partners, especially private sector across the fisheries value chains.	New co-financiers including from eth private sector were identified and contacted for participation on the project. Their co-financing letters are accessible in Appendix 2
f) Please ensure that collaboration and mechanisms for coordination with the GEF-8 ETP project and GEF-7 UNDP project #11011 are finalized and clearly explained in the final project design.	While the project design clearly acknowledges the need for coordination and complementarity with related GEF initiatives, including the GEF-8 ETP project and the GEF-7 UNDP project #11011, at inception detailed collaboration mechanisms will be defined. Coordination is framed at a strategic level, with operational arrangements—such as joint work planning, data-sharing, and governance interfaces—to be formalized during early implementation.