

Comprehensive Electronic Catch Documentation and Traceability (eCDT) Principles

Version 2.0 September 2023



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SALT

SEAFOOD ALLIANCE FOR
LEGALITY & TRACEABILITY



About SALT

The Seafood Alliance for Legality and Traceability (SALT) is a global community of governments, the seafood industry, and nongovernmental organizations working together to share ideas and collaborate on solutions for legal and sustainable seafood, with a particular focus on traceability—the ability to track the movement of seafood through supply chains. To date, SALT has been a public-private partnership between the United States Agency for International Development (USAID) and the Packard, Moore, and Walton Family Foundations, and is implemented by FishWise, a sustainable seafood consultancy. FishWise will carry on key services and convene the SALT community in 2024. This includes designing traceability strategies and supporting governments, businesses, and NGOs around the world using the Comprehensive Traceability Principles.

About FishWise

FishWise is one of the leading global experts on seafood traceability and risk mitigation against illegal and unethical seafood products. As an organization, it develops, tests, implements, and broadcasts responsible business practices to improve transparency and responsible management of complex global seafood supply chains and reduce both negative ecological impact and human rights abuses. Drawing on the latest best practices and tools, FishWise works to sustain ocean ecosystems and the people who depend on them by transforming global seafood supply chains. FishWise envisions a future in which the seafood industry, in collaboration with governments and civil society, takes full accountability for the people and the ocean resources upon which it depends so that:

- OCEANS (encompassing the marine and freshwater ecosystems that are integral for supporting life on this planet) are restored to be more productive and biodiverse while providing a critical source of healthy protein to meet the needs of a growing global population.
- PEOPLE (including the millions of women and men who harvest, produce, process, and sell seafood) benefit and thrive in an inclusive and equitable industry with decent working conditions for all.
- SEAFOOD BUSINESSES (composed of small- and large-scale producers, processors, suppliers, and buyers that provide food and livelihoods) remain financially viable for generations to come.

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Principles and Pathway Guidance 2.0

2023 Narrative of Changes

In an effort to keep the Principles and Pathway actions relevant and useful to traceability program creators, implementers, and users, we have updated both the content and resources made available on this site. The Principles and Pathway are both “living,” in that they will be updated, altered, and improved when necessary. We will continue to identify and incorporate relevant resources for the Pathway to support implementation whenever possible.

Version 2.0 updates reflect:

- Gaps identified during the launch of the Principles.
- Feedback from the seafood community and from fishery stakeholders who have applied the Principles to their work (see “Case Studies” for more information about these projects).
- Internal evaluation.
- General changes in seafood traceability guidelines and regulations.

The primary changes to the Principles in version 2.0 fall under the following three themes:

- Strengthened social responsibility and human and labor rights guidance.
- Guidance for traceability data verification and transparent operations.
- Applicability to industry, NGOs, and other traceability practitioners.

Strengthened social responsibility and human and labor rights guidance:

Version 2.0 includes updates to social responsibility and human and labor rights language that reflect extensive reviews by experts in the field. Though eCDT systems alone will not improve labor conditions at sea, their support of human rights monitoring depends on people being able to rely on the validity of the data, which emphasizes the need for data verification practices, and using the data for regulatory decision-making and interventions. For these reasons, FishWise included additional guidance for how governments should approach worker engagement and worker confidentiality. Additional modifications to the Pathway actions are likely to evolve over time as guidance evolves on how to ethically use data to support human and labor rights.

Guidance for traceability data verification and transparent operations:

The Principles 2.0 include additional resources and guidance for supporting traceability data verification, user accountability, and transparent operations. While eCDT programs are paramount to providing visibility into seafood supply chains for improved monitoring, operations, human welfare assurances, and numerous other benefits, verification of the data to ensure valid decision-making is equally important. Successful traceability requires not only diligence in how the data is collected, but the assurance of

its accuracy and purpose for data sharing, as well as accountability for the timely use and responsible storage of data. Transparency of a program's utility, decision-making processes, and data-sharing protocols is essential to ensure that people who need access to supply chain information have it, while data privacy and ownership considerations are protected. Transparency, accountability, and verification are essential to traceability.

Applicability to industry, NGOs, and other traceability practitioners:

Although the full design and implementation of an eCDT program requires government support, buy-in, and long-term maintenance, there are steps that industry and nongovernmental organizations can take to initiate program design (like stakeholder mapping, bottom-up engagement, technological scoping, etc.) to generate political will and bolster willingness to invest. The Principles 2.0 includes several updates to expand this applicability.



Introduction

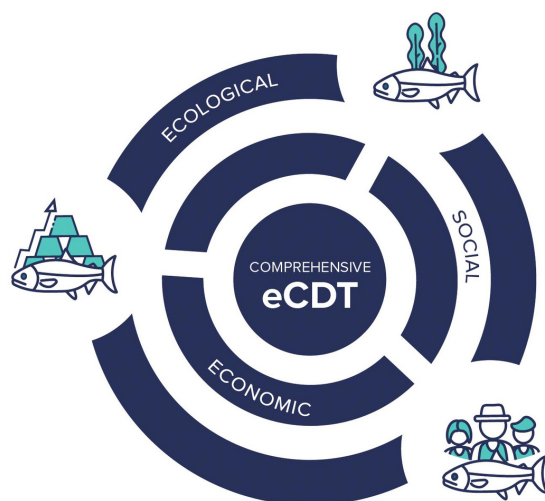
Governments across the world are increasingly recognizing the importance of more transparent seafood supply chains. One potential tool governments and private industry have leveraged to create more transparency is the digital tracking of seafood products as they move throughout the supply chain.

The practice of digitally collecting, sharing, and tracking verifiable information about the harvesting, processing, and transportation of seafood products is called electronic catch documentation and traceability (eCDT). Data from the harvest and movement of products, when captured and shared electronically, facilitate a quicker exchange of information and enable broader use and more thorough verification by governments and along supply chains.

The network of technologies involved in electronic traceability has the potential to improve operational efficiency and responsiveness of supply chains, identify sources of risk, and streamline reporting and compliance processes for participating companies. Traceability programs are designed to interface with and manage information from these technology networks. When traceability programs are implemented at the government or regional fisheries management level, those potential benefits can be extended.

Using ecological, social, and economic data accompanying seafood products, governments can strengthen the effectiveness of fisheries management, support legal and equitable work conditions for seafood laborers, and identify and prevent illegal, unreported, and unregulated (IUU) and mislabeled products from entering domestic or international supply chains and markets. The data collected from eCDT programs can feed into the relevant government institutions, agencies, or industry systems to achieve these diverse objectives.

Using data captured from traceability programs to simultaneously support ecological, social, and economic objectives is called a comprehensive approach.



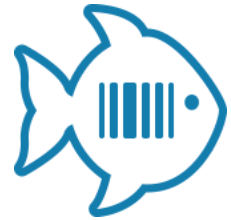
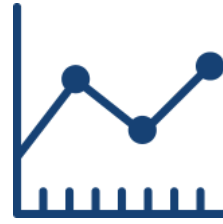
A number of existing resources—such as the FAO’s Voluntary Guidance for Catch Documentation Schemes or the Global Dialogue on Seafood Traceability (GDST)—identify best practices for particular harvest methods, specific regions, or the type of key data elements to collect. However, there is no one resource that incorporates them all. There is a need for broad guidance that identifies the best practices for governments in the design and implementation of seafood traceability programs to achieve comprehensive goals (ecological, social, and economic). Without this guidance, governments may create a program that only addresses one problem, such as a new market import requirement or other emerging need. As a result, they may miss out on all the potential benefits that an eCDT program can provide.

The Seafood Alliance for Legality and Traceability (SALT) facilitated a Consultative Committee made up of 35 stakeholders from 18 countries to address this need. The committee identified six Comprehensive eCDT Principles and drafted a pathway to apply them. The Principles serve as best practices for governments of seafood producing countries as they move towards a comprehensive approach to initiate, design, implement, and/or improve their traceability programs. Since implementing the Principles and Pathway with government and industry practitioners, we have received feedback on the utility of this guidance and have made changes to reflect user experiences, evolving best practices and resources, and human and labor rights guidance for utilizing eCDT programs to assess social risks.

The Comprehensive eCDT Principles were designed primarily for governments of seafood producing countries, or countries that are a source for seafood. However, SALT expects the Principles to be relevant to the traceability efforts of many other stakeholders (e.g., fishers, seafood companies, local communities, social/labor groups, environmental NGOs, traceability technology providers). Nongovernment stakeholders can use this guidance to initiate eCDT program design and create user buy-in that can support political will and ultimately government action.

The Principles are high-level and flexible so that technological solutions and implementation strategies can be tailored to reach each country’s goals. The Principles are not presented in any priority order, nor are they intended to be sequential.

Visit [FishWise’s website](https://fishwise.org) for more information about the Principles, and for relevant resources, case studies, and guidance that are linked with each action of the Pathway. If you are interested in applying these Principles to your work, FishWise can help. Reach out to us at SALT@fishwise.org.



Traceability Principles

Traceability Principles

Overview

Creating and administering a plan to collect useful data from fishing activities is a complex undertaking for governments and companies alike. But once collected, multiple stakeholders can take advantage of this information to address ecological, social, and economic goals. Building that triple-impact, or “comprehensive,” approach into the design and implementation of a country’s eCDT program is one method to help meet all these goals.

To make this process easier to navigate, the Comprehensive eCDT Principles were created. They are the core themes to keep in mind throughout the process of designing, implementing, or improving an eCDT program to achieve comprehensive goals. **The Principles are not presented in any sequence or priority order; rather, they all hold equal importance and should all be considered throughout the entire process.**

These Principles may be applied differently depending on how far along a government is in implementing an eCDT program (whether the design has just begun or there already exists a solid foundation for improvements). The Principles are intentionally flexible so that anyone—no matter where they are in the process—can use them to work towards a more comprehensive eCDT program.

To support users in applying these Principles, the online Pathway to the Principles provides suggested actions for how to put these Principles into practice. The Pathway breaks down the process of implementing or improving a comprehensive traceability program into three phases: Initiate, Design, and Implement.



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Comprehensive Electronic Catch Documentation and Traceability (eCDT) Principles



Maximize ecological, social, and economic benefits

Understand and identify synergies among the ecological, social, and economic aspects of the eCDT program to maximize benefits using a comprehensive approach. Each eCDT program will have varying levels of benefits across each dimension, but users should avoid achieving benefits at the expense of other areas of impact.



Use data to inform decision-making

Put the necessary information into the hands of the right people in a timely manner, so they can act upon it and make data-driven decisions while designing, implementing, and improving the eCDT program.



Create a program that is electronic, interoperable, and data secure

Increase alignment across the seafood sector by prioritizing the seamless exchange of digital data with existing traceability systems. Choose technologies that meet needs for data analysis, security, and worker confidentiality.



Be inclusive and collaborative with stakeholders

Collaborate early and often with those who will use the eCDT program, those affected by it, and advocates of both groups to improve program uptake and create multi-stakeholder oversight.



Build a lasting and scalable program

Generate and maintain support for the eCDT program—politically, financially, and with users—so it can expand beyond the pilot phase.



Address data and verification needs across fisheries and supply chains

Different stakeholders and nodes of the supply chain will have different data and verification needs. Recognize these particular needs while also considering how to safely and equitably collect, store, and share that data while upholding worker voice, engaging workers throughout the process, and supporting worker-driven initiatives.

Visit: <https://fishwise.org/traceability-principles/>

The Pathway to the Principles

The Pathway to the Principles provides guidance for putting the Principles into practice. It details specific actions to apply the Principles when designing, implementing, or improving a comprehensive eCDT program.

This series of actions extends through three phases:

- **Initiate**, which includes early research, goal setting, and stakeholder engagement.
- **Design**, which includes identifying technology, assigning responsibilities, and creating the systems to support the program.
- **Implement**, which includes piloting the program, adaptively managing, and scaling it.



This guidance has been divided into these three phases to both ease navigation and allow anyone—regardless of which phase they are in—to see how these Principles come into play. Every action featured in the Pathway has at least one Principle associated with it, which is denoted by an icon.



To find more information and relevant resources, visit the Pathway to the Principles on FishWise’s website: <https://fishwise.org/traceability-principles/apply-them/>

INITIATE





INITIATE: *Research & Engage*





Principle	Pathway Action
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>1. Define goals and scale of eCDT program</p> <ul style="list-style-type: none">• In consultation with stakeholders, clearly define objectives (across ecological, social, and economic dimensions) of the comprehensive eCDT program, and how data will be used to drive change (i.e., through data utilization, verification, and transparency in how data is used).
<p>Build a Lasting and Scalable Program</p> 	<p>2. Identify potential challenges to longevity of the program early on</p> <ul style="list-style-type: none">• Consider who will pay to set up and maintain the system; what market incentives may or may not be in place; and the ability to influence or leverage political will.• Determine if the budget for the program is secure and where political support is strongest and weakest.



INITIATE

Principle	Pathway Action
<p>Use Data to Inform Decision-Making</p> 	<p>3. Learn from other traceability efforts</p> <ul style="list-style-type: none"> • Review past eCDT programs and lessons learned to avoid common pitfalls; consider reviewing recommendations from traceability programs outside of seafood. • Consult relevant on-the-ground NGOs and/or technology consultants that can support peer reviews and peer-learning efforts.
<p>Use Data to Inform Decision-Making</p> 	<p>4. Conduct research, assessment, or gap analyses on existing programs and enabling environment to identify supporting regulatory frameworks, enforcement, and political will</p> <ul style="list-style-type: none"> • Identify and assess existing support for a comprehensive eCDT program (i.e., infrastructure, data and data systems architecture, regulatory enforcement measures, interested institutions, relevant private sector initiatives). • Assess stakeholder and institutional perceptions of the potential of an entirely new program, including its socioeconomic impacts (cost of developing, adopting, using, etc.) to mitigate unintended consequences such as negative environmental or human rights impacts. <ul style="list-style-type: none"> ◦ Analyze the potential impact of an eCDT program on different genders and other key stakeholder demographics. • Leverage existing or encourage creation of supportive partnerships between governments and businesses in order for both groups to best fulfill their complementary roles as outlined in the UN Guiding Principles. • Check for norms, policies, and government enforcement regarding health and safety, core human rights principles (i.e., the ILO core conventions, engagement with national or global trade unions), and worker voice that enables effective grievance mechanisms without retaliation, while protecting worker confidentiality, promoting decent work, and upholding fundamental human and labor rights.



INITIATE

Principle	Pathway Action
<p>Use Data to Inform Decision-Making</p> 	<p>5. Characterize supply chain</p> <ul style="list-style-type: none"> • Conduct a general overview of involved fisheries, including current catch documentation, reporting, and social responsibility data collection practices across government agencies to understand data needs. • Facilitate data mapping (when technology systems are able to exchange information or data seamlessly) by identifying labor and product data requirements already in place in key markets and across relevant agencies (e.g., import rules, food safety). • Identify any standardized data formats that would be relevant to the goals of the program (e.g., GDST KDEs).
<p>Use Data to Inform Decision-Making</p> 	<p>6. Assess existing exposures and risks</p> <ul style="list-style-type: none"> • Assess existing exposures and risks of illegal, unreported, and unregulated fishing (IUUF) for relevant stocks and supply chains within the eCDT program, including mechanisms to mitigate for any identified risks, if any. <ul style="list-style-type: none"> ◦ Specify areas of risk and what practices are needed to remediate identified issues (e.g., port controls, third-party data verification, vessel audits, capacity building with supply chain actors, etc.). ◦ Identify related governing agencies or departments responsible for acting on data or process improvement needs and barriers that may be associated if governing agencies choose not to participate in the eCDT program. • Assess exposures and risks of human rights abuse for people working in or associated with relevant stocks and supply chains, including enabling mechanisms to strengthen policy for labor protections (such as the right to freely associate and collectively bargain), and/or general social safeguards (such as protections for free speech) and human rights defenders.

INITIATE


Principle	Pathway Action
	<ul style="list-style-type: none"> Specify existing risk data sources and needs, including time spent at sea, captain's logs, or instances of at-sea transshipment, recruitment dynamics, and risks to fishers' families. Identify related civil society organizations, worker associations including trade unions, governing agencies, or departments (such as departments of labor or employment) that work on human rights risk, abuse, policy, and/or data collection.
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>7. Gather economic data to prepare for cost-benefit analysis</p> <ul style="list-style-type: none"> Collect baseline data of costs involved with current fisheries management program, including food safety and regulatory compliance. Set expectations around a feasible long-term return on investment, as financial returns may take time to manifest.
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>8. Be inclusive in identifying stakeholders</p> <ul style="list-style-type: none"> Properly identify relevant stakeholders from governments, affected fisheries (including small-scale), technology/service providers, supply chain companies, trade unions, multi-stakeholder collaborations, and other worker/labor groups, depending on the level (international, national, regional, or company) on which you aim to develop an eCDT program to meet those stakeholders' needs. Identify whether the program will impact marginalized and disenfranchised stakeholders (including migrant workers and women) and take steps to build trust and include them.

INITIATE





Principle	Pathway Action
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>9. Communicate incentives/benefits to foster stakeholder participation</p> <ul style="list-style-type: none"> • Identify and clarify the value proposition of eCDT in collaboration with program users (businesses, quality assurance and compliance agencies, scientists, workers, etc.). • Be transparent with stakeholders about the potential benefits of the program that have been demonstrated in other programs, the intended scope of the program, and the degree to which there is flexibility to modify implementation when benefits are not being realized.
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>10. Consult stakeholders early, repeatedly, and with sensitivity to their needs</p> <ul style="list-style-type: none"> • Identify the preferred form of communication for stakeholder groups involved in program design, and ensure equitable inclusion for marginalized and disenfranchised groups, which will depend on scope, objectives, and fishery characteristics. • Integrate knowledge and build accountability and trust using stakeholders' preferred outreach and method; use the local language and an accessible format, considering user needs, cultural considerations, and groups that may be disproportionately impacted by eCDT implementation. • Consider power dynamics and relationships among stakeholders in the consultation process (e.g., workers and businesses, gender, government and private sector). <ul style="list-style-type: none"> ◦ Use transparent and participatory decision-making processes. ◦ Include trade unions and civil society members in governance structures to support long-term social dialogue. • Ensure that feedback from stakeholders is incorporated throughout the entire project life cycle to improve the program as it evolves.

DESIGN





Principle	Pathway Action
<p>Address Data Verification Needs Across Fisheries and Supply Chains</p> 	<p>11. Map data needs and constraints along full supply chain</p> <ul style="list-style-type: none"> • Define the minimum data required to meet program objectives. • Identify where more information is needed to define data/technology needs. <ul style="list-style-type: none"> ◦ Map key data elements (KDEs) to critical tracking events (CTEs) within affected supply chains. • Identify where CTEs start and end given the different jurisdictions among different players (e.g., regulators, stakeholders, regional bodies, etc.). <ul style="list-style-type: none"> ◦ Identify where duplicative information is being requested and work with relevant stakeholders to align requests for efficiency. • Minimize exemptions granted from eCDT program data collection, but state clearly where they do exist (e.g., small-scale fishers, certain vessel types, instances in which data collection on workers may be used against them).




DESIGN

Principle	Pathway Action
<p>Address Data Verification Needs Across Fisheries and Supply Chains</p> 	<p>12. Design eCDT program with verification needs and challenges in mind</p> <ul style="list-style-type: none"> • Create a data quality assurance protocol that includes data and process verification. <ul style="list-style-type: none"> ◦ Identify how and where data will be verified to support accuracy and program compliance. ◦ Consider contracting external consultants to conduct third-party data audits to increase trust among practitioners and reinforce validity of decision-making processes.
<p>Address Data Verification Needs Across Fisheries and Supply Chains</p> 	<p>13. Ensure data security and data access protocols</p> <ul style="list-style-type: none"> • Clearly define who has access to data and for what purpose, with special consideration for worker privacy. <ul style="list-style-type: none"> ◦ Prioritize informed consent and participant access to data.
<p>Build a Lasting and Scalable Program</p> 	<p>14. Identify potential pilot sites</p> <ul style="list-style-type: none"> • Select supply chains that are well understood and sites that have on-the-ground (industry and NGO) support. • Leverage (or build on) existing or previous seafood traceability pilots in the area of interest, when possible, to prevent duplicative efforts and encourage efficient use of resources.
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>15. Design the eCDT program to fit within larger fisheries management programs</p> <ul style="list-style-type: none"> • Identify differences between the proposed program and the existing national strategy for fisheries management. • Consider those who may not have had input in the design of the existing program, and how their perspectives might have changed the design. • Align data collection with stock assessment and/or integrate with existing fisheries management plans to ensure sustainable fishery management and promote biodiversity conservation.




DESIGN

Principle	Pathway Action
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>16. Identify how worker welfare will be monitored and supported</p> <ul style="list-style-type: none"> • Identify governing agencies with jurisdiction over data related to worker welfare and data security issues (e.g., departments of labor and/or employment) and enforcement of minimum wage, immigration status, and health care requirements to increase the relevance, incorporation, and interoperability of any social data collected by the eCDT program. • Identify existing protocols for how to share social data with agencies that oversee worker information, and revise or create new protocols as needed to improve worker welfare outcomes.
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>17. Implement safeguards to mitigate negative impacts of data collection on worker rights and privacy</p> <ul style="list-style-type: none"> • Consult existing data privacy laws, and identify processes, accountability mechanisms, or new schemes for responding to privacy considerations and stakeholder/user concerns as needed. • Ensure that personally identifiable information is redacted from publicly shared data. • Confirm that fishers and other workers have access to confidential grievance and remedy systems. • See definitions for grievance mechanisms and remedy in the Glossary for Comprehensive Principles. • Connect program implementers and stakeholders in other rights monitoring, advocacy, and social support organizations and systems (e.g., trade unions, migrant advocacy organizations, human rights advocates) to contextualize risks for workers. <ul style="list-style-type: none"> ◦ Consider civil society organizations that can support workers and program implementers in upholding key human rights needs (e.g., grievance and remedy) by helping uphold workers' rights, which often requires specialized skills and experience.




DESIGN

Principle	Pathway Action
<p>Create a Program that is Electronic, Interoperable, and Data Secure</p> 	<p>18. Seek to minimize costs</p> <ul style="list-style-type: none"> • Require only the minimum technology adoption and data collection needed to meet program objectives. • Identify technology that adds value to businesses' bottom line; ensure there is a built-in cost-recovery scheme.
<p>Create a Program that is Electronic, Interoperable, and Data Secure</p> 	<p>19. Consider trade implications of actions taken; Avoid creating trade barriers</p> <ul style="list-style-type: none"> • Ensure that the program is compatible with the traceability requirements of major importers like the United States, the European Union, and Japan. • Consult trade monitoring organizations (e.g., WTO) to avoid creating trade barriers.
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>20. Clarify stakeholder roles, responsibilities, and needs for program implementation</p> <ul style="list-style-type: none"> • Identify expertise and capacity of stakeholders and leverage expertise. • Acknowledge that implementation roles and responsibilities for eCDT programs will vary across nations (e.g., flag, coastal, port, processing, end market). • Acknowledge that financial or capacity support may differ between developed and developing nations. • Define roles and capacity of private sector and government bodies, especially within government agencies implementing the Principles including labor, employment, and food safety. (Who will cover the costs? Who will collect or verify the data? Will the development process involve partnerships between government and industry?) • Identify groups that can contribute to identifying worker roles, responsibilities, and needs (e.g., worker committees, fisher cooperatives, trade unions, other civil society organizations). • Outline role of individuals or companies collecting, verifying, and submitting data.



DESIGN

Principle	Pathway Action
	<ul style="list-style-type: none"> Identify opportunities for stakeholders—particularly civil society organizations and regional entities—to provide oversight of the program and governance structures.
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>21. Formulate agreements between agencies for the sharing of information and responsibilities</p> <ul style="list-style-type: none"> Explicitly identify the responsibilities and authorities of each agency as they pertain to the goals of the comprehensive eCDT program. Consider data sharing agreements (DSA), formal contracts clearly documenting what data is being collected and shared and how it can be used, by whom, and for what purposes. Determine how to best integrate processes of various involved agencies for efficacy of the program. Determine whether agencies require technical assistance or capacity building to construct the data management system, and if so, how they can obtain that assistance.
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>22. Ensure stakeholders from relevant supply chains formally agree to support the eCDT program</p> <ul style="list-style-type: none"> Obtain both commitment and action (implementation, monitoring, control, and enforcement) along entire supply chains to derive counter-IUU fishing and worker protection benefits. Recruit influencers to support program adoption (community leaders, association heads, industry champions, thought leaders, key local government officials) and to test the program.
<p>Create a Program that is Electronic, Interoperable, and Data Secure</p> 	<p>23. Identify eCDT technologies to fulfill data collection and analysis needs</p> <ul style="list-style-type: none"> Let data collection, program objectives, and user needs drive eCDT tool selection, not the promised functions of the technology itself. Define the architecture of the system (e.g., central repository, distributed ledger, etc.).

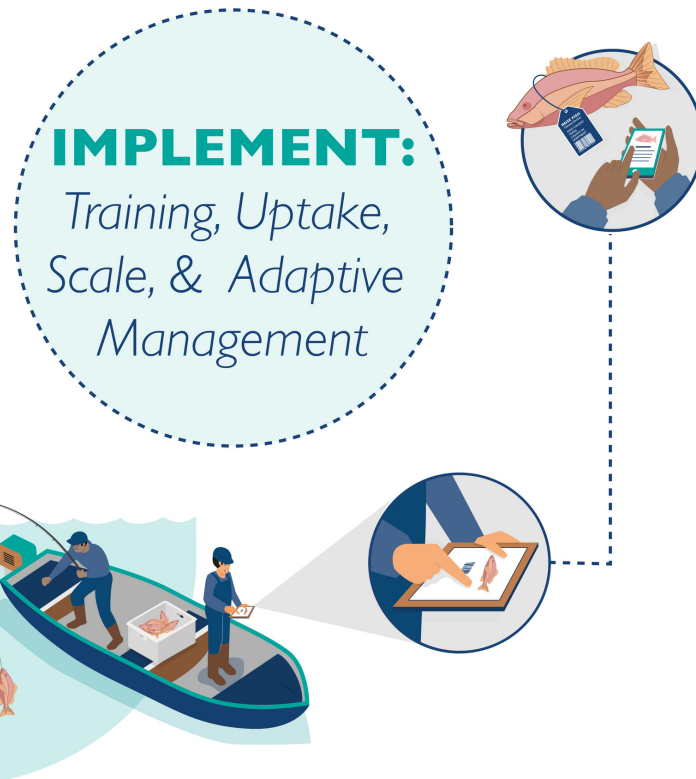
DESIGN



Principle	Pathway Action
	<ul style="list-style-type: none"> Ensure that the program is vendor-neutral, where appropriate, and that transparency mechanisms (public requests for proposals, for example) are mandatory when competing for government contracts.
<p>Create a Program that is Electronic, Interoperable, and Data Secure</p> 	<p>24. Develop eCDT programs and technologies with “human-centered design” approaches</p> <ul style="list-style-type: none"> Use site-specific approaches or designs where possible, though customization should support interoperability. Consult with technology users before and during implementation (see “Initiate” section). Use co-creation to develop the program, since it can foster buy-in and ownership among users.
<p>Create a Program that is Electronic, Interoperable, and Data Secure</p> 	<p>25. Prioritize interoperability with existing traceability programs and data</p> <ul style="list-style-type: none"> Build on existing and planned investments. Use standardized data formats (i.e., key data elements (KDEs)). Consider alignment with industry data standards (e.g., GDST Standards & Materials) and import data requirements of market states (e.g., U.S. SIMP). Allow national electronic traceability platforms, where they exist, to interface with eCDT systems, including private sector systems.
<p>Build a Lasting and Scalable Program</p> 	<p>26. Encourage the adoption of program protocols into policy</p> <ul style="list-style-type: none"> Encourage policy adoption/development that aligns with international data standards and import regulations to strengthen eCDT support at the governmental level. Advocate for government ratification and implementation of international agreements that standardize expectations for workers’ rights.

DESIGN




Principle	Pathway Action
	<ul style="list-style-type: none"> • Encourage buyer traceability systems and policies to integrate into program protocols by engaging with supply chain partners, verifying sustainability claims, implementing interoperable systems, etc. • Generate community support for the program where possible.
<p>Build a Lasting and Scalable Program</p> 	<p>27. Estimate funding needs and responsibilities in order to fund the program sustainably</p> <ul style="list-style-type: none"> • Plan for long-term funding to support all steps of program implementation (e.g., IT services, enforcement, interagency coordination, outreach, infrastructure support, monitoring, etc.).
<p>Use Data to Inform Decision-Making</p> 	<p>28. Plan to flexibly and adaptively manage the eCDT program</p> <ul style="list-style-type: none"> • Build in designated periods for monitoring and adaptation, particularly from the entities providing oversight. • Design the program for modern and emerging technology in data analytics. • Avoid prescribing a specific technology so that the program can adapt to changes.

IMPLEMENT







Principle	Pathway Action
<p>Build a Lasting and Scalable Program</p> 	<p>29. Pilot the eCDT program with key users, including supply chain actors, government agencies, researchers, and consultants</p> <ul style="list-style-type: none"> • Formalize partnership with those who will be the first implementers. • Identify and address barriers and challenges to technology adoption. • Implement mechanism to receive and integrate feedback from the first implementers. • Ensure data security is maintained.
<p>Be Inclusive and Collaborative with Stakeholders</p> 	<p>30. Provide user assistance, technical support, and capacity building as needed</p> <ul style="list-style-type: none"> • Provide training to stakeholders across the supply chain. <ul style="list-style-type: none"> ◦ Encourage uptake of the program with training and support including maintenance or analysis and interpretation of data collected.


IMPLEMENT

Principle	Pathway Action
	<ul style="list-style-type: none"> ◦ Include training of community engagement practitioners to ensure information is safeguarded and aggregated. • Use culturally effective methods of communication and ensure instructions are available in useful formats. • Consult with stakeholders to gather feedback.
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>31. Monitor and evaluate efficacy of eCDT program by analyzing data to determine if objectives (ecological, social, economic) are being met</p> <ul style="list-style-type: none"> • Measure economic and non-economic effects of eCDT program, such as improved/standardized product prices, increased engagement of women in the fisheries supply chain, and communal improvements made with the additional income generated by the use of eCDT.
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>32. Document costs of program implementation and project costs of long-term operation</p> <ul style="list-style-type: none"> • Conduct cost-benefit analysis and/or a return-on-investment (ROI) study using collected baseline economic data. • Consider conducting a socioeconomic impact study for government initiatives to advocate for sustained funding from state budgets. • Identify other business and industry drivers (facilitation, trade preference, operational efficiencies, market state demands). • Consider documenting and publicly reporting environmental, social, and ecological benefits.
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>33. Assess program benefits, limitations, and challenges in relation to equity and worker welfare</p> <ul style="list-style-type: none"> • Ensure and facilitate worker participation in program creation and implementation. • Track and resolve concerns raised from workers regarding program efficacy and privacy.

IMPLEMENT

Principle	Pathway Action
	<ul style="list-style-type: none"> • Monitor, evaluate, and adapt as needed. • Evaluate the alignment and complementarity (as well as any gaps) in the roles of eCDT implementers and governmental agencies that monitor labor. • Continue to strengthen dialogue between fisheries operators and labor monitoring agencies to confirm that the data gathered is used for implementation and/or enforcement of human rights laws and other social benefits.
<p>Maximize Ecological, Social, and Economic Benefits</p> 	<p>34. Evaluate how often data should be collected and analyzed for fisheries management decisions</p> <ul style="list-style-type: none"> • Ensure necessary agencies have clear data flows for assessing efficacy of ecosystem-based fisheries management (EBFM).
<p>Use Data to Inform Decision-Making</p> 	<p>35. Use monitoring and evaluation tools to assess program performance and identify opportunities for adaptive management</p> <ul style="list-style-type: none"> • Adapt and scale technology and program protocols based on user feedback.
<p>Build a Lasting and Scalable Program</p> 	<p>36. Evaluate scalability of the program based on program lessons</p> <ul style="list-style-type: none"> • Know who is responsible for financially supporting and maintaining the system; whether market incentives are sustainable; and if political will maintained.
<p>Build a Lasting and Scalable Program</p> 	<p>37. Identify differences between the pilot and other areas for implementation</p> <ul style="list-style-type: none"> • Determine how objectives of the scaled program overlap and differ from that of the pilot. • Assess resources for scaling: are the funds, staff, infrastructure, political will, and resource commitments still present and appropriate for the scope of the project.

IMPLEMENT

Principle	Pathway Action
<p>Build a Lasting and Scalable Program</p> 	<p>38. Return to the Initiate and Design phases when necessary during monitoring and evaluation of the eCDT program</p> <ul style="list-style-type: none">• Acknowledge that program data needs, technology platforms, and users or beneficiaries are likely to evolve with changes in industry best practices, technology advances, market pressures, and availability of human and welfare data guidance.• Adapt program over time to meet new regulatory, social, economic, and ecological needs.

Apply the Principles

Apply Them To Your Work

The next step of this work is to apply and test the Comprehensive Principles and Pathway with implementers. If you are interested in applying these Principles to your work, let FishWise know, as we can support your efforts.

If you have any feedback or questions, reach out to us at: SALT@fishwise.org.



eCDT

The practice of digitally collecting, sharing, and tracking verifiable information about the harvesting, processing, and transportation of seafood products is electronic catch documentation and traceability (eCDT). Data from the harvest and movement of products—when captured and shared electronically—facilitate a quicker exchange of information and enable broader use and more thorough verification by governments and within supply chains.

Comprehensive

When data captured from eCDT systems is used to support ecological, social, and economic objectives. Using ecological, social, and economic data collected via electronic traceability, governments can strengthen the effectiveness of fisheries management, support legal and equitable human welfare conditions for seafood laborers, and identify and prevent illegal, unreported, and unregulated (IUU) and mislabeled products from entering domestic and international markets.

Co-design

Co-design is a participatory process in which all critical stakeholders, from experts to end users, are encouraged to participate throughout the process of defining issues, designing outcomes, and developing and testing solutions. (13)

Civil Society Organization (CSO)

Non-State, not-for-profit, voluntary entities formed by people in the social sphere that are separate from the State and the market. CSOs represent a wide range of interests and ties. They can include community-based organizations as well as non-governmental organizations (NGOs). In the context of the UN Guiding Principles Reporting Framework, CSOs do not include business or for-profit associations. (1) CSOs can include trade unions or other worker-led organizations.

Critical tracking event (CTE)

A specific point along a supply chain where certain key data elements need to be captured for the purpose of enabling traceability of a product. CTEs for seafood include harvest, landing, primary processing, aggregation, packaging, shipping, receiving, and sale. (2)

Disenfranchised groups

Those deprived of some right, privilege, or immunity, (3) including women, youth, religious and ethnic minorities, persons with disabilities, LGBTI individuals, and indigenous peoples. (4)

Electronic traceability

Seafood product information relevant to traceability is recorded, stored, shared, and accessed via electronic means as opposed to using a paper-based system. Elements of electronic traceability may include computerized or cloud-based databases, enterprise resource planning (ERP), Electronic Data Interchange (EDI), data standards, and barcodes or RFID systems (to name a few). (2)

Enabling environment

Describes the social, political, technical, and environmental factors within which an eCDT program operates. The combination of these factors can facilitate or hamper the program's creation, performance, and/or sustainability.

End-to-End traceability

Data is collected and shared along the entire supply chain from the point of harvest to the final end-buyer or consumer, also referred to as "full supply chain."

Gap analysis

A "gap" refers to the space between the present state ("where we are") and the target state ("where we want to be"). It could also be viewed as a "needs assessment" or "need-gap analysis" in that challenges and opportunities are presented alongside priorities and timeframes to bridge the gap towards current capabilities and an ideal eCDT system. (5)

Grievance mechanism

A grievance is understood to be a perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. The term grievance mechanism is used to indicate any routinized, State-based or non-State-based, judicial or non-judicial process through which grievances concerning business-related human rights abuse can be raised and remedy can be sought. (6)

Human-centered design

Human-centered design (HCD) is a way of thinking that places the people you're trying to serve and other important stakeholders at the center of the design and implementation process. (6)

Human rights

Human rights are the rights people are entitled to simply because they are human beings, irrespective of their citizenship, nationality, race, ethnicity, language, gender, etc. This term refers to the UN Universal Declaration of Human Rights, which lists 30 articles defining those rights, including that “all humans are born free and equal...have a right to life, liberty and security of person...shall not be held in slavery or servitude...everyone has a right to leave any country...everyone has a right to work, to free choice of employment, to just and favorable conditions of work, and to protection against unemployment.” (8)

Illegal, unreported, and unregulated (IUU) fishing

“Illegal fishing activities are those being conducted without permission or in violation of formal laws and regulations. Unreported fishing occurs when landings are not reported to the government or fishery management authority. Unregulated fishing is the harvesting of fish and shellfish stocks for which there are no conservation or management measures in place.” (2)

Interoperability

The ability of different information technology systems or software programs to communicate seamlessly for the purpose of exchanging and using data. For systems to be truly interoperable, they must have both semantic (common meaning) and syntactic (common format) interoperability. (2)

Key data elements (KDE)

The different pieces of information that capture the who, what, where, and when of a seafood product as it moves through different Critical Tracking Events in the supply chain. Industry-wide agreement about what information needs to be captured continues to be a work-in-progress. (2)

Labor protections

“Labour protection aims to promote decent working conditions and focuses on the economic, temporal and physical aspects of the individual at work: wages, working time, and occupational safety and health.” (9)

Marginalized groups

Different groups of people within a given culture, context and history at risk of being subjected to multiple discrimination due to the interplay of different personal characteristics or grounds, such as sex, gender, age, ethnicity, religion or belief, health status, disability, sexual orientation, gender identity, education or income, or living in various geographic localities. (10)

Monitoring, Evaluation, and Learning (MEL)

A monitoring, evaluation, and learning system or framework is customized to address specific needs or goals. Monitoring, evaluating and learning should be conducted simultaneously to track progress, deliver evidence of achievements, and adaptively manage. (14)

Remedy

Remedies, often provided by grievance mechanisms, take a range of forms designed to “counteract or make good any human rights harms that have occurred. Remedy may include apologies, restitution, rehabilitation, financial or non-financial compensation and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition. Procedures for the provision of remedy should be impartial, protected from corruption, and free from political or other attempts to influence the outcome.” (6)

Social safeguards

Social safeguard policies are essential tools to prevent and mitigate undue harm to people during the development process. When identifying and designing a project, safeguards should help assess the potential social risks and impacts (positive or negative) associated with a development intervention. Safeguards should help define measures and processes to effectively manage risks and enhance positive impacts. (11)

Stakeholder

Stakeholders are the individuals, groups, or institutions who affect or are affected by a decision or activity. (12)

Supply chain

People and businesses involved with the production, processing, brokering, and distribution of seafood from fisher to consumer. Seafood may be transformed multiple times along the supply chain as it changes hands from one member of the supply chain to another. (2)

Traceability

The ability to identify and trace the history, distribution, location and application of products, parts, and materials, to ensure the reliability of sustainability claims, in the areas of human rights, labor (including health and safety), the environment and anti-corruption. (15)

Traceability program

All the elements (e.g., policies, technologies, trainings, processes) that are needed to effectively track products, reap comprehensive benefits, and make informed decisions.

Traceability system

A network of technologies (i.g., hardware and software) that (when implemented by the private sector) have the potential to improve operational efficiency and responsiveness of supply chains, identify sources of risk, and streamline reporting and compliance processes for participating companies.

Trade barrier

Government restraints (e.g., policies, tariffs, restrictions) that inhibit the flow of international trade by making it more difficult or expensive. (16)

Transparency

A continuum of information accessibility from full, public data-sharing (highly transparent) to limited, permission-based sharing with specific users (less transparent). Accessible, accurate information about practices, processes, policies and other factors that may be used for compliance or risk management purposes. Both governments and supply chain actors have transparency expectations.

Verification

The capacity to cross-check product, company-level, and/or supply/value chain information at any point using data supplied by stakeholders or vetted by third parties. (2)

Comprehensive eCDT Principles Glossary

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For definitions of other terms related to seafood traceability, visit Future of Fish's Glossary and Global Trace Protocol's Glossary.