LEARNING SITE EXPERIENCES AND LESSONS LEARNED

GENERAL SANTOS CITY, PHILIPPINES | THE USAID OCEANS AND FISHERIES PARTNERSHIP

THE USAID OCEANS AND FISHERIES PARTNERSHIP (USAID OCEANS) set out in 2015 to strengthen regional cooperation to combat illegal, unreported, and unregulated (IUU) fishing and conserve marine biodiversity in the Asia-Pacific region. The five-year program—a partnership between the U.S. Agency for International Development (USAID), the Southeast Asian Fisheries Development Center (SEAFDEC), and the Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security (CTI-CFF)—has worked to establish and advance electronic catch documentation and traceability (eCDT) systems, improve sustainable fisheries management using an Ecosystem Approach to Fisheries Management (EAFM), address human welfare aspects of the seafood sector, and develop public-private partnerships in support of these efforts. In 2016, USAID Oceans and the Philippines Department of Agriculture's Bureau of Fisheries and Aquatic Resources (BFAR) established General Santos City in Southern Mindanao as a program learning site to locally test solutions for national impact and regional learning.

GENERAL SANTOS, PHILIPPINES was selected as a program learning site in 2016, and since has been a training ground to:

- develop and test cutting-edge seafood traceability systems,
- implement sustainable fisheries management plans,
- empower women and promote gender equity in the seafood supply chain, and
- bring together government and industry to enhance seafood traceability.

IMPACTS

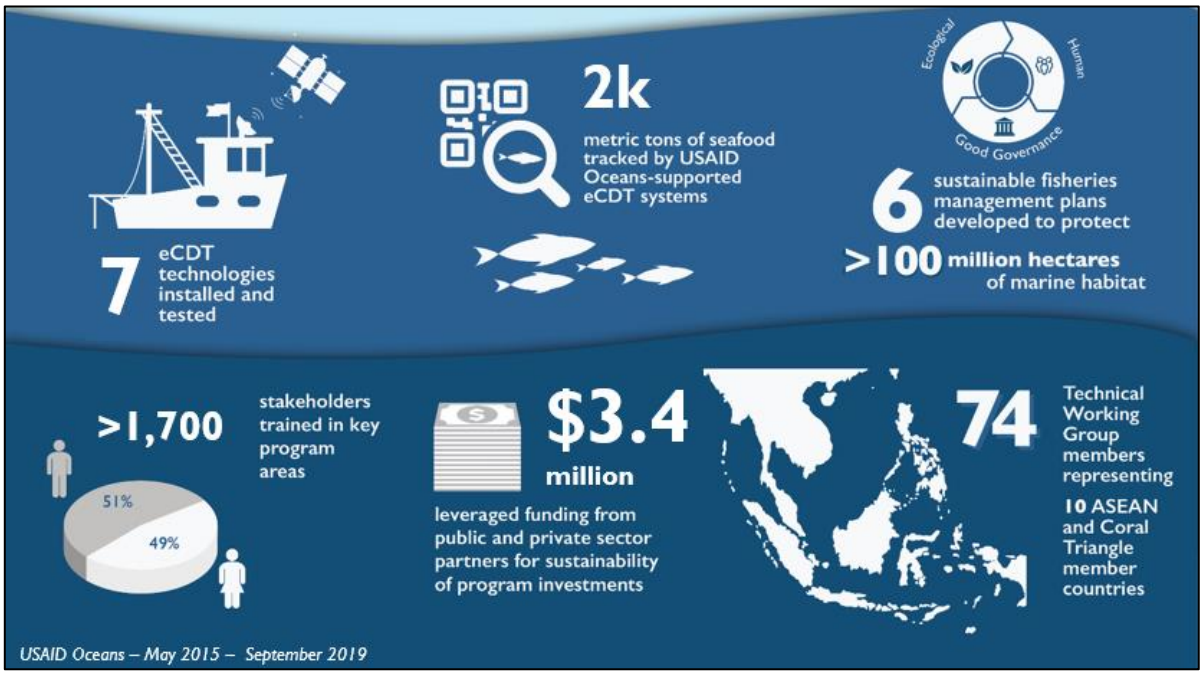


Figure 1. USAID Oceans overall project achievements

COMBATING IUU FISHING IN THE PHILIPPINES

General Santos City, known as the "Tuna Capital of the Philippines," is situated in Sarangani Bay and Celebes Sea and contributes significantly to the Philippines' status as the second largest manufacturer of canned and processed tuna in Asia, after Thailand. Its fisheries sector holds tremendous significance to national and local economies. Unfortunately, the area's biodiversity is threatened by illegal and unregulated fishing, a lack of data and research to assess current fish stocks, and the absence of sufficient monitoring, control, and surveillance mechanisms for the fisheries industry. In addition to the treat to biodiversity posed by IUU fishing, the lack of sufficient monitoring and regulation can lead to the proliferation of unsustainable fishing practices that perpetuate these threats. As a result, tuna production in the Philippines and the availability of other local fish species has been in decline.

In 2016, USAID Oceans began working in General Santos City to improve fisheries management, protect the region's biodiversity, and sustain the viability of fisheries and marine ecosystems. When USAID Oceans started working in General Santos, catch documentation and traceability systems in the city were exclusively paper-based. Thus, establishing electronic catch documentation and traceability (eCDT) systems for General

Santos fisheries that could be scaled-up throughout the Philippines was an essential component of USAID Oceans' work in the learning site. In addition to being an industry standard, and increasingly a market requirement, eCDT systems are more effective for recording and tracking essential information at harvest and throughout the supply chain than paper-based systems. In turn, data from eCDT systems is an important resource for fisheries management decision-making.

PROGRAM APPROACH AND IMPLEMENTATION PHASES

The USAID Oceans program approach and phases of implementation are grounded in **three assumptions (Box 1)**. These assumptions focus on the benefits of adopting eCDT systems for fishers, the use of eCDT data to improve fisheries management, and the need for regional capacity and cooperation to expand and sustain CDT as a tool for implementing an ecosystem approach to fisheries management (EAFM).

Box 1. USAID Oceans Program Assumptions

Assumption 1. If the eCDT system is robust, meets stakeholders' needs, and provides an economic incentive to fishers through the increased demand for and value of traceable fishery products, then the system will be adopted by the private sector and supported by government agencies throughout the region.

Assumption 2. If fisheries managers use eCDT systems with other tools (including an ecosystem approach to fisheries management and promoting safe, legal, and equitable labor practices) to inform fisheries management plans and regulatory regimes, then local and national fisheries governance will be strengthened.

Assumption 3. If regional capacity and cooperation is built to support EAFM and CDT, then more institutions and countries in the region will endorse and sustain their use.

USAID Oceans was implemented in **five phases** over five years (Figure 1). In its first two years, USAID Oceans focused on developing coordination mechanisms and partnerships **(Phase 1)** to take stock of ongoing efforts and gain a common understanding of assumptions on which the program's approach would be based. In **Phase 2,** research and analysis were conducted to explore exciting eCDT technologies; identify key data requirements for fisheries management, human welfare, and gender equity; and assess the status of fisheries management systems in which these technologies would be embedded.

During **Phase 3,** USAID Oceans supported the design and implementation of eCDT technologies along the supply chain and stakeholder engagement activities at learning sites and with local "First Movers." First Movers are fishers, buyers, and processors in General Santos City and Sarangani who tested the eCDT tools. System design and stakeholder engagement activities were conducted hand-in-hand with private and government partners. Starting with small-scale, site-based pilots that focused on a specific port, supply chain, and fishery was essential for designing a system that could meet the needs of and provide benefits to both private and government stakeholders. Prior to USAID Oceans, the Philippines Department of Agriculture's Bureau of Fisheries and Aquatic Resources (BFAR) had plans to develop an eCDT system. In Phase 3, USAID Oceans was able to catalyze development and provide momentum through technical assistance, training, and providing equipment needed to bring existing plans to reality. In Phase 3, the program also supported Futuristic Aviation and Maritime Enterprises, Inc. (FAME), a private technology company based in the Philippines, to develop a catch documentation and vessel tracking system for small-scale fishers (Box 2).

Box 2. Technologies Supported by USAID Oceans

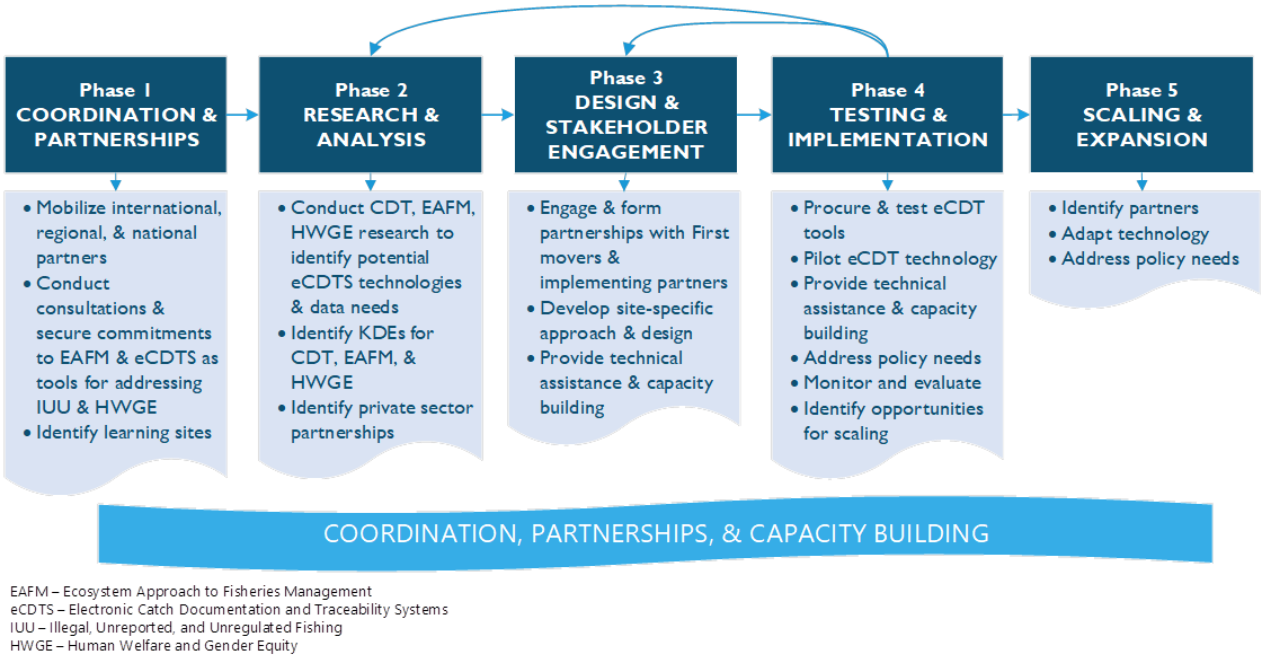
BFAR eCDT system (eCDTS): mobile CDT application and system designed by BFAR

FAME: electronic system and mobile application to support catch documentation and traceability for small-scale fishers

In last two years of the project, USAID Oceans procured, tested, and evaluated eCDT technologies in learning sites in partnership with local, national, and regional private- and public-sector partners **(Phase 4)**. In the final phase, **Phase 5,** USAID supported additional public-private partnerships to facilitate eCDT system scale up, assist technology providers to expand their user base, and

introduce eCDT to new areas in the Philippines outside of General Santos City. Program partners played a leading role in scaling and expanding eCDT systems to other sites and countries in the region.

While the project used a phased approach, implementation and expansion of eCDT systems was not a strictly linear process. The process required returning to prior phases to build new partnerships, conduct additional research, and adjust implementation. In particular, the design and testing phases often required USAID Oceans to conducted additional research to fully understand issues or gaps that were identified in design and testing. Coordination, partnerships, and capacity building were cross-cutting activities that supported each phase of implementation.



EAFM – Ecosystem Approach to Fisheries Management
eCDTS – Electronic Catch Documentation and Traceability Systems
IUU – Illegal, Unreported, and Unregulated Fishing
HWGE – Human Welfare and Gender Equity

Figure 2. USAID Oceans' phased implementation approach

LESSONS LEARNED

Cross Cutting

Although the perceived economic benefits of eCDT were thought to be the primary merits of eCDT technology, many other benefits emerged as equally important to stakeholders along the supply chain, such as increased operational efficiency, two-way communication, maritime security, and safety at sea. Companies that worked at all nodes of the supply chain—fishing, processing, and export—experienced benefits from advanced knowledge of their expected catch to inform staffing and processing. The cost savings to business operations were an essential benefit as manual, paper-based documentation was replaced by electronic systems.

In addition to economic benefits described by fishing companies, small-scale fishers identified the benefits of FAME technology as contributing to safety at sea and enabling communication with their families. The fishers reported they had improved "peace of mind" from knowing that their families could track their location at sea and from the improved ease of communicating. However, limitations to the communication and safety features should be noted. During the pilot, the safety feature was disabled once the USAID Oceans team and FAME learned that the coast guard, that would receive the distress signal, was unlikely to respond. Additionally, most small-scale fishers and their families do not have smartphones or tablets, so they were unable to track the location of the vessel or use the two-way communication features.

Local government units (LGU) identified the enhanced value of fish, improved fisheries management, maritime security, and safety at sea as key benefits. The introduction and expansion of eCDT systems resulted in increased registration by small-scale fishers; however, incentives, such as cold storage, fuel subsidies, and monetary incentives from buyers, are needed to support continued adoption.

Systemic problems in the fisheries supply chain need to be addressed to enable small-scale fishers to fully realize economic benefits of traceable fisheries products. Some examples are emerging from USAID Oceans partners that demonstrate that traceable fisheries products command premium value. Driven by this higher value, a buyer in Palawan is providing a monetary incentive to each small-scale fisher that uses the FAME technology to trace their tuna catch. Small-scale fishers are also interested in eCDT systems because they believe they will get a better price for their catch; however, these fishers are often indebted to middlepersons, which limits their ability to benefit from the increase value of the products. A middleperson finances small-scale fisher to purchase supplies before going to sea. In turn, the fisher is beholden to the middleperson to sell their catch and the middleperson may not pass along the added value of the traceable catch to the fisher. Moreover, before the catch goes to the exporter it may pass through a series of middlepersons who may not classify the grade of weight of the catch accurately, which could result in a lower selling price and lower overall returns for the fisher. Overall, there is a lack of transparency along the supply chain that needs to be addressed.

eCDT data for fisheries management needs to be aligned with stock assessment methodologies and management needs. The use of eCDT system data in stock assessment and fisheries management remains untested. If length-based stock assessments are used, the current eCDT system does not provide a data field for port validators or fish enumerators to capture the length of the fish caught; the current system only allows entry of either the number or weight of the catch. More testing, standardization, and quality control are needed to support the use of eCDT for fisheries science. Additional research and analysis and pilot studies are also needed to understand how data from the eCDT system can be used in fisheries management. Moreover, fisheries management plans must incorporate actions to promote gender equity and good labor practices.

Many current plans do not include these elements despite clear increased awareness of and interest in these issues as a result of USAID Oceans training and capacity building efforts.

Regional coordination is essential to national and site-level eCDT system design and implementation, as it supports the identification of eCDT system needs and capacities that are regionally relevant, while locally customized. Regional coordination among international and regional organizations and national government entities enables customized systems to be developed that work within regional and international landscapes. It also promotes a shared understanding of existing systems, capabilities, and gaps and supplements national and site-level activities with regional and international expertise. USAID Oceans established a regional technical advisory group as a platform to discuss ongoing issues and provide guidance and technical resources to guide eCDT system development and sustainable fisheries management across Southeast Asia. Consultations, meetings, and workshops conducted throughout the life of the project resulted in strong partnerships and a support network that can be utilized after the program's close to continue regional work on traceability, fisheries management, and human welfare. This multisector and multi-country collaboration resulted in the development of foundational documents, including sustainable fisheries management plans (SFMP) and eCDT and gender research guides that partners throughout the region will continue to use to support design and adoption of eCDT systems and to improve fisheries management beyond the life of the project. Under USAID Oceans and through multi-level coordination, a common understanding of the benefits of an eCDT systems at regional and national scales was defined and provided a foundation for communicating those benefits to local partners and stakeholders.

Phase One – Coordination and Partnerships

National and site-level technical working groups need to be established early and meet regularly to address issues that emerge from eCDT system design and testing and to support sustainable fisheries management system, gender equity, and human welfare. USAID Oceans established national and site-live technical working groups that were essential through all phases of the project. The regular exchange of information between these technical working groups ensured that issues were clearly understood and addressed. The use of SMS applications, such as WhatsApp, was particularly useful in communicating issues that emerged in a timely fashion and sharing possible solutions. USAID Oceans' multi-sectoral project team and partners, composed of site coordinators, technology experts, fisheries advisors, and communications specialists, was also essential to support the learning site during all phases of the project.

Public-private partnerships help build trust between government agencies and the fishing industry to work toward a sustainable industry and sustainable fisheries management. Partnerships between the government and fishing companies provide the foundation for coordination needed to design and test eCDT systems. Agreements on the roles and responsibilities between government and private sector entities should be clearly articulated, particularly regarding data confidentiality, access, and integration between privately owned and government systems. By working together to develop and pilot eCDT technologies, the government and private sector gain a greater appreciation of the challenges and opportunities for supporting both a sustainable industry and sustainable fisheries management.

Phase Two - Research and Analysis

Careful research and analysis are needed to identify the minimum data requirements for an eCDT to serve multiple needs (export, seafood safety, fisheries management, human welfare, and gender) without overburdening government and stakeholder capacity. At project initiation, USAID Oceans worked with large, medium, and small-scale fishers, buyers, processors, and exporters to understand current traceability systems and technologies and identify needs and

opportunities for improvement. Value chain analyses, rapid appraisals of fisheries management systems, gender analyses, and labor studies all contributed to eCDT system design and were used to identify opportunities to improve fisheries management and integrate gender equity and human welfare interventions. Through the regional technical working group and workshops with a broad range of stakeholders, issues with fisheries management, human welfare, and gender were identified and integrated in eCDT systems as key data elements (KDEs). These findings were shared through multisector stakeholder meetings and captured in seminal documents that were used to inform the design and implementation of eCDT systems.

Fishing associations are instrumental to support research and analysis, identify First Movers, facilitate partnerships, and support implementation. Fishing associations, such as SOCSKSARGEN Federation of Fishing and Allied Industries (SFFAII) and the Alliance of Tuna Handliners (ATH), were essential to identifying issues, needs, and capacity of their members and to engage them to pilot eCDT systems and discuss project-related issues. These associations have an in-depth understanding of their members' needs and can assist in convening members when key decisions need to be made. These associations can assist in identifying First Movers and conducting a robust due diligence process that is essential for identifying issues before engaging with them.

Phase Three - Design and Stakeholder Engagement

Technical working groups and frequent and multisectoral collaboration among national and learning site level stakeholders are essential to eCDT and SFMPs. Stakeholders were engaged through both national and local technical working groups in the design of two technologies, the Philippines' National Electronic Catch Documentation and Traceability System (eCDTS) and the FAME system for small-scale fishers. During design and implementation, national and site-level technical working groups, composed of government representatives, nongovernmental organizations, and industry played an important role in guiding eCDT design, testing, and implementation. The technical composition of the working groups covered cover a range of expertise on technology, fisheries management, the supply chain, fisheries industry, human welfare, gender. Maintaining these technical working groups throughout implementation and during scale-up helps identify issues and challenges and address them in a timely manner.

eCDT system design should include small-scale fishers. Small-scale fishers make a significant contribution to fish supply not only for export but also for the local economy and enhance national food security. There are about 50,000 small-scale fishing vessels (<3 GT) that fish in the waters of Sarangani Bay. Catch documentation is largely absent for these fishers. While LGUs are primarily responsible for managing municipal fishers, the national government has a responsibility to include small-scale fishers in the design of eCDT systems. Small scale fishers play an important role for processors and exporters by supplying high-grade tuna for both domestic and export markets. These fishers are also important to government, academe, and researchers because of their role maintaining marine biodiversity. In 2018-2019, USAID Oceans partnered with key fisheries NGOs (e.g., the World Wide Fund for Nature [WWF], Rare) and BFAR to develop the eCDT guidelines for a municipal catch documentation and traceability system in the Philippines—an important step to ensure small-fishers are considered in eCDT system development. In addition to project-develop guidelines, these municipal fishers need to be included in national fisheries management plans and eCDT systems.

Phase Four – Testing and Implementation

First Movers and technical working groups play a key role in demonstrating technologies and communicating benefits to other stakeholders. USAID Oceans provided training, technical assistance, and equipment for First Movers testing eCDT technologies. In turn, First Movers were critical to piloting eCDT technologies and systems and providing honest feedback

and solutions for improvement. For example, early in testing FAME technology with small-scale fishers, feedback from First Movers helped identify that the solar panel and battery size of on-board transponders were not sufficient. As a result, the transponders were upgraded to better meet fishers' needs. Regular contact with users is essential not only for identifying and addressing problems but for minimizing frustration on the part of the user. For example, consultations with First Movers revealed that technology designed for and tested by small-scale fishers faced challenges including user literacy, access to smartphones, and systemic problems in the supply chain, such as the role of middleman. National and site-level multisectoral technical working groups were essential to facilitate dialogue to identify and address these problems.

Additionally, the use of First Movers was one of the most successful strategies to demonstrate technologies and communicate benefits to other stakeholders. For example, when national and local government agencies were equipped with software and hardware to support system monitoring, USAID Oceans was only able to identify tangible benefits of the technology and demonstrate these benefits to stakeholders after First Movers tested the system. In addition, the USAID Oceans multisectoral team, composed of a site coordinator, technology expert, fisheries advisor, and communications specialist, was essential in early implementation phases and throughout the project to communicate and socialize the system benefits. This cohort can also be instrumental in scaling implementation.

eCDT testing is time-intensive and requires frequent interaction and capacity building with stakeholders at national and local levels to identify and resolve issues related to technology, data capture, accessibility, and use**.** USAID Oceans provided training, technical assistance, and equipment to test both the national eCDTS and FAME technology. Large-scale fishers and processors were equipped with tablets to use an offline version of the eCDTS to capture KDEs at sea, at the point of landing, and during processing. Testing of the tablet-based system revealed a number of issues related to KDEs. Early in the testing process it was revealed that KDEs required by handline fishers and fresh and frozen processors were not included in the eCDTS. USAID Oceans worked with BFAR to revise policies and test adjustments to the system to address this issue. Capacity building was a critical component of this phase at both national and local levels. USAID Oceans conducted training workshops with both BFAR and First Movers allowing them to operate the technology and report back on performance and issues.

Phase Five – Scaling and Expansion

Small-scale pilots provide tangible benefits that can support eCDT expansion. USAID Oceans was able to support initial scaling and expansion of eCDT systems beyond the General Santos learning site. After piloting eCDT technologies in General Santos, USAID Oceans partners, FAME and WWF, introduced FAME technology to Palawan, Bicol, and Mindoro. USAID Oceans also supported numerous small-scale gender equity activities, including trainings, needs assessments, campaigns highlighting women's role in the industry, and establishing local gender networks. These small-scale activities provided tangible benefits that could be socialized beyond learning sites to increase buy-in for an adoption of eCDT and gender-equity initiatives.

Fishing associations are essential to expand and scale eCDT and SFMP implementation. Fishing associations, such as SAFFAII and ATH, are instrumental in advocating for adoption of new technology and can leverage First Movers to communicate benefits of the technologies to their members. First Movers within each association can also serve as trainers for other members adopting eCDT systems and technologies. Moreover, increasing women's involvement in the supply chain and in fishing associations supports gender equity and contributes to eCDT and SFMP implementation and expansion.

RECOMMENDATIONS AND NEXT STEPS

Continued technology development and scaling. The expansion of eCDT systems to small-scale fishers in the municipalities around Sarangani Bay has great potential. Local chief executives are enthusiastic about the benefits to their communities, however small-scale fishers will need incentives and financial support for eCDT system adoption and use. Systemic problems in the fishery supply chain that could pose risks to realizing the benefits from the technology need to be assessed and addressed.

At a national level, a five-year roadmap and investment and incentive strategy are needed to bring the eCDT system into full operation. A thorough review and evaluation of the eCDT systems being adopted in the learning site should be completed to resolve outstanding issues, such as system integration, to support roadmap development. The national roadmap should detail priority actions to support technology integration, data sharing and use in fisheries management, and sustainable financing mechanisms both from the government and private sector. National government agencies should detail the investment needed to complete and scale eCDT systems, integrate government and private sectors systems, purchase equipment and back-up systems, and conduct regular maintenance and upgrades. Most importantly, incentives are needed to support early adoption until eCDT systems are mainstreamed in the country. Subsidies to the fishing industry could be redirected toward eCDT system adoption, especially for small-scale fishers.

In terms of functionality, additional work is needed to ensure small-scale fishers are benefiting from eCDT technologies—particularly in terms of increased safety at sea and two-way communications. It is recommended that each fishing community using FAME systems receives at least one tablet, to be kept by an identified custodian, so that families in the area can track fishers' location. Additionally, FAME should re-enable the transponder safety features but revise the system to communicate directly with the LGUs and other fishers and fishing families who are likely to be the first responders in an emergency. Ideally, the system would be able to send an SMS in addition to a notification through the application so that users who do not have access to smartphones will still be notified if a fisher is in need of help.

In addition to being scaled geographically, eCDT technologies have the potential to be scaled beyond the tuna industry. USAID Oceans partners are encouraged to explore opportunities to introduce these technologies to enhance traceability and sustainable management practices for additional species (e.g., sharks and rays), gear types, etc. as well as for freshwater fisheries throughout the Philippines and the region.

Integration and interoperability. Additional work is needed to integrate FAME system data with the eCDTS to bring small-scale fishers into the national database. At a national level, the development of a *Technology Evaluation and Integration Protocol* could facilitate this integration. This protocol should include criteria for the review, evaluation, and integration of new technologies as they emerge. A multisector CDT technical advisory group, chaired by the BFAR with members from nongovernmental organizations, fishing associations, and private sector, should meet regularly to review the status of eCDTS implementation, identify and address issues, and discuss opportunities to use emerging technologies. This advisory group would also foster public-private sector collaboration to address IUU fishing and improve fisheries management.

Fisheries science and management. The potential to use eCDT data for fisheries management in the Philippines needs to be reviewed and tested. In 2018, BFAR issued Administrative Order 263 establishing 12 Fisheries Management Areas (FMAs) to support a science-based and participatory governance framework for managing FMAs. The FMAs are delineated based on approximate stock boundaries, range, distribution, and structure. Thus, BFAR may wish to first engage scientists from government and academe to develop digital tools and dashboards for data analytics and visualization

to aid in using eCDT data for real-time fisheries management, including for stock assessments and assessing other FMA parameters. In addition, more eCDT pilot projects could demonstrate how eCDT system data can be used to develop policies such as closed seasons, harvest control rules, and other strategies that support EAFM. Furthermore, linking eCDT data with the BFAR National Stock Assessment Program will provide more robust evidence-based guidance for managing FMAs including considerations of other fisheries, fishing gear, and fish species.

Similarly, under Fisheries Administrative Order No. 258, BFAR established tuna conservation and management zones (TCMZ) for small-scale tuna handline fishers from the city and six coastal towns of Sarangani. These TCMZs provide an additional opportunity to use eCDT systems to support data-driven fisheries management. BFAR, together with the LGUs and USAID Oceans partner, Mindanao State University, may wish to focus on TCMZs to pilot fisheries management practices that use eCDT data to monitor catch and make management changes. The pilot should include analysis of the impact of large commercial tuna fishing between the non-contiguous TCMZs and along economic exclusion zones on the sustainability of the TCMZ.

Policies and Regulations. While economic incentives are assumed to be a primary driver of eCDT system adoption, policies and regulations are needed to level the playing field among small-scale and large-scale fishers. A review of the existing incentives for fisheries would be valuable to align government investment and subsidies toward eCDT system adoption and sustainable fisheries management. LGUs charged with managing small-scale fisheries need national support to provide incentives for eCDT system adoption, address systemic issues in the supply chain, and explore potential use of eCDT data (e.g., vessel tracking) for disaster response and for human welfare concerns. A unified fishery ordinance for all LGUs in Sarangani that would require registered fishers to use eCDT technology, establish a fund to help purchase and maintain equipment, and support coordinated surveillance and law enforcement by LGUs, would help standardize and expand eCDT systems.

Legal instruments are needed to promote gender equity and women's empowerment in sustainable fisheries management. These legal instruments can also help institutionalize gains made under USAID Oceans, such as the adoption of the *Promotion of Gender Equality and Women's Empowerment in the Tuna Fisheries Sector in General Santos City and Sarangani Bay Area, Philippines* guidance by the local tuna industry and its partners.

Mechanisms are also needed to help disrupt the exploitation of small-scale fishers by middle buyers and increase transparency in sales. These could include e a fisher's micro-loan program and finding ways to make daily export market values available to fishers.

Gender Equity. Building capacity among women is vital, particularly given current cultural limitations to women's participation in capacity building activities. Understanding social, familial, and economic limitations women face and building the capacity of partners and stakeholders to incorporate gender considerations in their work is necessary to ensure women benefit from program interventions. Legal instruments to promote gender equity and women's empowerment in fisheries management, developed with USAID Oceans' support, are in various stages of development and submission to relevant authorities (local, national, regional). One of these instruments, *Promotion of Gender Equality and Women Empowerment in the Tuna Fisheries Sector in General Santos City and Sarangani Bay Area, Philippines,* has been adopted by the local tuna industry and its partners. However, further guidance and monitoring and evaluation are needed to ensure that these legal instruments are properly implemented, and that gender equity is a standard consideration in fisheries management.

USAID Oceans has taken strides in developing eCDT systems, improving sustainable fisheries management, advancing human welfare and gender equity in the fishing industry, and establishing

essential public-private sector partnerships in General Santos and throughout the Philippines. But there is still work to be done. The program looks to regional and site-level partners to carry USAID Oceans' initiatives into the future and to continue to advance eCDT and EAFM efforts in Southeast Asia beyond the life of the project.

USAID OCEANS REGIONAL, NATIONAL, AND LOCAL PARTNERS

International and Regional Partners

Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF)

Future of Fish

Global Food Traceability Center (GFTC)

National Oceanic and Atmospheric Administration (NOAA)

Seafood Watch

Southeast Asia Fisheries Development Center (SEAFDEC)

United States Agency for International Development (USAID)

US Department of the Interior (DOI)

Government

Bureau of Fisheries and Aquatic Resources (BFAR), Department of Agriculture

Department of Environment and Natural Resources (DENR), Region 12

City Government of General Santos

Municipal Government of Alabel, Sarangani Province

Municipal Government of Glan, Sarangani Province

Municipal Government of Kiamba, Sarangani Province

Municipal Government of Maitum, Sarangani Province

Municipal Government of Maasim, Sarangani Province

Sarangani Bay Protected Seascape, Protected Area Management Board (SBPS PAMB)

Sarangani Provincial Government

Local Non-Governmental Partners

Alliance of Tuna Handliners (ATH)

Conservation International (Philippines)

Mindanao State University (MSU) Naawan Foundation for Science and Technology Development Incorporated

SOCSKSARGEN Federation of Fishing and Allied Industries, Inc. (SFFAII)

Women in Fisheries Network (WINFISH)

WorldFish, Philippines

World Wide Fund for Nature (WWF) Philippines

Private Sector First Movers

Celebes Canning Corporation

Dexsea Trading

General Tuna Corporation

Jebo Fishing

Marchael Sea Ventures

MKMI Fishing

Mommy Gina Tuna Resources

Philippine Cinmic Industrial Corporation

RD Fishing

Rell and Rell Fishing Corporation

Rell and Renn Seafood Sphere Inc.

Santa Cruz Seafoods, Inc.

Small-scale fishers from the ATH branches of General Santos City, Alabel, Glan, Maitum, Kiamba, Maasim,

Tuna Explorers, Inc.

Technology Partners

Futuristic Aviation and Maritime Enterprise, Inc. (FAME)

ThisFish

AVAILABLE RESOURCES

Explore USAID Oceans' training, technology, and research tools, which provide guidance for implementing fisheries development solutions that support sustainable fisheries, consider new technological advancements, and enhance the human aspects of fisheries. Key resources, available in multiple languages, are listed below. To view and download USAID Oceans full set of resources, visit http://bit.ly/OceansResources

Project Overview Materials

Program Overview Video – Learn how USAID Oceans and its supported technology solutions are working to strengthen regional cooperation to combat IUU fishing, promote sustainable fisheries, and conserve marine biodiversity in the Asia-Pacific region. This video provides an overview of what eCDT technology is and the benefits it can bring to a range of partners—from local fishers to international consumers. bit.ly/Oceansoverview

Fisheries Catch Documentation and Traceability in Southeast Asia primers – "CDT 101" provides a conceptual overview of USAID Oceans' approach to eCDT, exploring Southeast Asia's fisheries, technology, and partner landscape. "CDT 201" provides a deeper, more technical look at the program's technical approach and outlines specifications used for system design, testing, and implementation. bit.ly/cdtprimers

Data Requirements for Catch Documentation and Traceability in Southeast Asia – This guide presents a framework for critical tracking events (CTEs) and key data elements (KDEs) recommended to be captured using eCDT systems, including those recommended for enhanced human welfare. It includes a glossary of terms, definitions, and intended uses of all relevant and required KDEs within a traceable, wild-caught seafood supply chain. bit.ly/oceanskdeguide

Technology Solutions for Electronic Catch Documentation and Traceability booklet – This booklet provides an overview of USAID Oceans-developed and supported technology tools for electronic catch documentation and traceability. These tools establish connectivity in remote and at-sea areas, provide a mechanism for data collection and transmission through the entire supply chain, and provide value-added user benefits, such as communication, safety, and business tools. http://bit.ly/eCDTbooklet

Gender training videos – Video I introduces viewers to the important role that women play in the seafood supply chain—from preparing boats for sea to managing seafood sales. Video II provides a more in-depth look at gender research, including the importance of conducting gender research to inform fisheries management and important tools for conducting this research. These videos are developed to be used in trainings for fisheries managers at all levels as well as program implementors working in fisheries. *[LINKS FORTHCOMING]*

Learning site posters – Download USAID Oceans' series of posters that communicate key behaviors and practices needed for sustainable fisheries. The four posters cover illegal, unreported, and unregulated (IUU) fishing; safe and fare workplaces; catch documentation and traceability; and catch handling. Available in multiple languages. http://bit.ly/siteposters

Research and Training Guides

Assessing Fisheries in a New Era: Extended Guidance for Rapid Appraisals of Fisheries Management Systems and Technical Annexes provide new and extended guidance on appraising fisheries management systems that make use of new technology advancements and acknowledge the human and gender-related aspects of fisheries. Download the RAFMS guide here: http://bit.ly/RAFMSguide, and the technical annexes here: http://bit.ly/RAFMSannex

Gender Research in Fisheries and Aquaculture: A Training Handbook can be used to build team's understanding of gender equity, its importance in development, and practical tools and research methodologies that can be used to obtain valuable information about the human dynamics of fisheries. http://bit.ly/gender-research

Transformational Fisheries Development: Simplified Steps for Public Sector and Industry Engagement provides step-by-step guidance for identifying, evaluating, and implementing partnerships between the public and private sector to greatly enhance eCDT and other fisheries development ventures. http://bit.ly/PPP-guide

To access these resources and more, visit *www.seafdec-oceanspartnership.org* or contact *info@oceans-partnership.org*.