



The Oceans and Fisheries Partnership (USAID Oceans)

PHILIPPINES CLOSEOUT ACTIVITIES

Learning Site Partner Recognition Workshop and Technology Showcase

Activity Report | February 2020, Manila/Iloilo, Philippines



Date: 27 May 2020
Contract Number: AID-486-C-15-00001
Contract Period: May 14, 2015 to June 30, 2020
COR Name: Cristina Vélez Srinivasan

Submitted by: John Parks, Chief of Party
Tetra Tech | 1320 North Courthouse Road, Suite 600 | Arlington, VA 22201 | USA
Telephone: +1 (703) 387-2100 | Email: John.Parks@tetratech.org

This document was produced by Tetra Tech under the USAID Oceans and Fisheries Partnership of the United States Agency for International Development/Regional Development Mission for Asia (USAID/RDMA).

TABLE OF CONTENTS

Executive Summary.....	5
Introduction.....	7
Activity I: BFAR I2 FishMon Launch.....	10
1.1 Schedule of Activities	10
1.2 Participants.....	11
1.3 FishMon Launch Highlights.....	11
Activity II: Visit to the IMEMS FishMon Center.....	13
2.1 Schedule of Activities	13
2.2 FishMon Visit Highlights.....	14
Activity III: Partnership Recognition Workshop.....	16
3.1 Schedule of Activities	16
3.2 Participants.....	18
3.3 Opening Session	18
3.4 Session 1: Setting the future direction for eCDT	20
3.5 Session 2: Setting the future direction for human welfare and gender equity	22
3.6 Session 3: Setting the future direction for EAFM.....	23
3.7 Session 4: Summary and findings	25
3.8 Partner Recognition.....	29
3.9 Closing Session	32
Activity IV: eCDT Technology Showcase	33
4.1 Schedule of Activities	33
4.2 Participants.....	35
4.3 Day 1: eCDT Technology Showcase.....	36
4.4 DAY 2: Field Demonstration and Facilitated Discussion.....	48

ANNEX I: Attendees	56
ANNEX II: Speeches	65
ANNEX III: Partner Testimonials	71
ANNEX IV: Acknowledgements	74
ANNEX V: Questions and Answers	75

LIST OF TABLES AND FIGURES

Table 1. Summary of Participants at Philippines Close-Out Activities	9
Table 2. Schedule of Activities for Philippines Closeout Event	9
Table 3. Agenda for BFAR 12 FishMon Center Launch, January 27, 2020	10
Table 4. Summary of Participants attending BFAR 12 FishMon Launch	11
Table 5. Schedule of Activities for the Two-Day BFAR FishMon Center Visit	13
Table 6. Program of Activity for the Philippines Closeout Event	16
Table 7. Participants profile from the Handover Workshop	18
Table 8: Progress Related to PAMP FOR SBPS Implementation	24
Table 9. Commitments made by the participants at the handover event	26
Table 10. Appreciation for USAID Oceans	27
Table 11. Suggestions to USAID/US Government from the participants	28
Figure 1. Major themes from the <i>Partner Recognition and Handover Workshop</i>	29
Figure 2. Partners recognized during the workshop	30
Table 12. Program of Activity during the eCDT Technology Showcase	33
Table 13. Participants' profile on the Technology Showcase	35
Figure 3. USAID Oceans Program Impacts	40
Figure 3. Main themes from lessons learned shared by partners	46
Table 14. Summary of the Q&A session on the demonstration of the FAME technology	49
Figure 4. The potential uses of the FAME technology in the Visayan Sea and advantages perceived by prospective users	52
Table 15: Participants at Partner Recognition Workshop, 05 February 2020	56
Table 16: February 11-12 2020: eCDT Technology Showcase, Iloilo	60
Table 17: Questions and Responses During Facilitated Discussion	75

ACRONYMS AND ABBREVIATIONS

ACDS	ASEAN Catch Documentation Scheme
ASEAN	Association of Southeast Asian Nations
ATH	Alliance of Tuna Handliners
BAR	Bureau of Agricultural Research
BFAR	Bureau of Fisheries and Aquatic Resources
CDTS	Catch Documentation and Traceability System
CO	Central Office (BFAR)
COLD	Catch Origin Landing Declaration
COP	Chief of Party
COR	Contract Officer's Representative
CSO	Civil Society Organization
CT	Coral Triangle
CTI-CFF	Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security
DA	Department of Agriculture
DICT	Department of Information and Communications Technology
DENR	Department of Environment and Natural Resources Regional Office
DRRM	Disaster Risk Reduction and Management
EAFM	Ecosystem Approach to Fisheries Management
eCDTS	Electronic Catch Documentation and Traceability System
EcoFISH	Ecosystems Improved for Sustainable Fisheries
ERS	Enterprise resource planning
ESTH	Regional Environmental, Science & Technology, and Health Hub
FAME	Futuristic Aviation and Maritime Enterprise, Incorporated
FIMC	Fisheries Information Management Center
FIS	Fisheries Information System
FMA	Fisheries Management Area
FRMP	Fisheries Resource Management Project
FSP	Fisheries Sector Program
GOs	Government Offices
HCR	Harvest Control Rules
IDS	Innovative digital solution
IFCU	Information and Fisherfolk Coordination Unit

IFPC	Iloilo Fishport Complex
IMEMS	Integrated Marine Environment Monitoring System
IUU	Illegal, Unreported and Unregulated (fishing)
MB	Management Board
MES	Manufacturing execution system
MMAF	Ministry of Marine Affairs and Fisheries
MPA	Marine Protected Area
MSUNFSTDI	Mindanao State University Naawan Foundation for Science and Technology Development, Inc.
NFC	Near field communication
NFPC	Navotas Fish Port Complex
NFRDI	National Fisheries Research and Development Institute
NGO	Non-government Organization
NSAP	National Stock Assessment Program
PAMB	Protected Area Management Board
PAMP	Protected Area Management Plan
PFDA	Philippine Fisheries Development Authority
PO	People's organization
PPP	Public-private partnership
RP	Reference Point
SAG	Scientific Advisory Group
SBPS	Sarangani Bay Protected Seascape
SDG	Sustainable development goal
SEAFDEC	Southeast Asian Fisheries Development Center
SFFAI	SOCKSARGEN Federation of Fisheries and Allied Industries Incorporated
SFMP	Sustainable Fisheries Management Plan
SSME	Sulu-Sulawesi Marine Ecoregion
SSS	Sulu-Sulawesi Seascape
USAID	United States Agency for International Development
USAID Oceans	USAID Oceans and Fisheries Partnership Activity
WINFISH	The National Network on Women in Fisheries

EXECUTIVE SUMMARY

The USAID Oceans and Fisheries Partnership project closeout activities were composed of four events:

- Launch of the Bureau of Fisheries and Aquatic Resources (BFAR) 12 Fisheries Monitoring (FishMon) Center in General Santos City on January 27, 2020
- Tour of the BFAR Integrated Marine Environment Monitoring System (IMEMS) FishMon Center on February 4-5, 2020 at the Navotas Fish Port Complex
- Partner Recognition and Handover Workshop in Quezon City on February 5, 2020
- Electronic Catch Documentation and Traceability Technology Showcase in Iloilo City on February 11, 2020

At all the events, the major stakeholders of the project were represented: BFAR Central Office (CO), BFAR 12, fishers from Alliance of Tuna Handliners (ATH), SOCKSARGEN Federation of Fishing and Allied Industries, Inc. (SFFAI), First Movers, Local Government Units (LGU)s, NGOs, Civil Society Organizations (CSO), and academe.

The BFAR 12 FishMon Center is the first regional FishMon center in the country and BFAR Regional Director (RD) Usop D. Pandaliday Jr. thanked USAID Oceans for partnering with them to build the capacity of the regional office for electronic catch documentation and traceability (eCDT). RD Pandaliday appreciated the regional team for their deep engagement with USAID Oceans and other partners and pointed to the improvement of services of BFAR 12 as a result of this enhanced capacity. The ribbon cutting was done by the RD and Ms. Rebeca Andong of USAID Oceans.

Top officials of BFAR and representatives from the Secretary of Agriculture, USAID, USAID Oceans and project stakeholders toured the BFAR IMEMS FishMon Center at the Navotas Fish Port Complex in Navotas City on February 4-5. The first day involved BFAR officials led by Assistant Director Drusila Esther Bayate, USAID and USAID Oceans representatives, technology partners, academe, NGOs and fishers. The second day involved Department of Agriculture (DA) Secretary William Dar and his staff, BFAR officials, USAID, and USAID Oceans representatives. On the first day, the BFAR eCDTS team led by Mr. Zaldy Perez, demonstrated the national eCDT system, its components and capabilities and how the system was developed. Mr. Elviro Cinco of Mindanao State University Naawan Foundation for Science and Technology Development, Inc. (MSUNFSTDI) described the eCDT technology using Futuristic Aviation and Maritime Enterprise, Incorporated (FAME) transponders as well as how the data can be used for fisheries data analysis, and Dr. Val Randolph Madrid demonstrated the analytics and visualization capabilities of the innovative digital solution (IDS) mobile app developed by the MSUNFSTDI team.

The *Partner Recognition and Handover Workshop* was held on 05 February at the Sequoia Hotel in Quezon City. Thirty-eight partners were recognized representing government offices, local government units, First Movers (ATH, SFFAI, and fishing companies), NGOs and other USAID programs. During his keynote address, Secretary Dar declared that the Department was proud to be a part of the project and called USAID as one of the Department's most reliable partners. He thanked everyone for their effort in developing the eCDTS and looked forward to successfully combating illegal, unreported and unregulated (IUU) fishing in the country. He was so impressed by the system that he declared a scaling up, instructing BFAR to fast track the institutionalization of the system. Over the day, three panels in succession discussed the future directions of eCDT, of human welfare and gender equity, and ecosystem approach to fisheries management (EAFM). All panels were composed of representatives from partner institutions/groups.

The final activity in the closeout events was the *eCDT Technology Showcase*, held in Iloilo City from February 11-12, jointly hosted by USAID Oceans and USAID Fish Right. Day 1 was set aside for the sharing of experiences by project partners and discussion of how the eCDT technologies developed for General Santos in the Philippines and Bitung in Indonesia could be adapted for use in the Visayan Sea and nearby regions. Three panels discussed national developments as well as accomplishments in the General Santos learning site.

The first panel covered the sharing of experiences by USAID Oceans partners such as the ATH, SFFAIL, BFAR CO, and BFAR I2. The second panel consisted of handover partners The World Wide Fund for Nature (WWF) and RARE, and technology partners FAME and MSUNFSTDI. The first two described how they were pushing to expand BFAR's eCDT system (eCDTS) in other sites, while the last two were USAID Oceans' partners discussing developing technologies for eCDT systems. The final panel was composed of technology partners from Indonesia and Canada, describing the eCDT systems they used: Pointrek, Trafiz and Tally.

After the panel discussions, the technology marketplace was set up. Each of the technology developers/providers set up at a table with a portion of the audience with them. After 15 minutes of discussion, the audience was asked to move to another table until they had completed the circuit.

On the second day, the participants witnessed the demonstration of the FAME technology at the Iloilo Fish Port Complex. Mr. Jason Kasim and Mr. Arcelio Fetizanan, Jr, of FAME, led the demonstration. Mr. Kasim accompanied the participants who sailed with the boat to simulate fishing and fish catch. He was joined by Fish Right Chief of Party Mr. Nygiel Armada and Ms. Rebecca Guieb of USAID Philippines.

After the demonstration, Mr. Patrick Co of USAID Fish Right, led the facilitated discussion specifically on the participants' insights, thoughts, suggestions on how the demonstrated technology can be used in the region. The participants thought the technology was useful and could make their respective jobs easier. They noted that aside from reducing the drudgery and inaccuracy of data gathering, it could be used for disaster risk reduction and management (DRRM), and for safety at sea. It could also be used to facilitate the validation of National Stock Assessment Program (NSAP) data, as well as for mapping. But many were also worried that the cost is beyond the capacity, especially of small-scale fishers and the LGUs. They also pointed to the need for the technology to be refined considering that the Visayan Sea has a different geography (many small islands vs. open sea), fishery (e.g. small pelagics), and fishing gear (multiple, some are active gears) than the General Santos learning site.

In capping the discussion, Dr. Ben Malayang, Silliman University, presented four things for the participants to consider: (1) using eCDT for market denial, (2) considering systems design in evaluating the use of the eCDT in this region, (3) linking with the Department of Information and Communication Technology (DICT) to ensure the support for the ICT components of the system, and (4) using the eCDT to track the state of the ecosystems vital to the fish species being traced.

INTRODUCTION

Since its launch in 2015, the USAID Oceans and Fisheries Partnership (USAID Oceans) has worked closely with its regional partners, the Southeast Fisheries Development Center (SEAFDEC), the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), and a network of public and private sector partners across the Asia Pacific region to advance solutions for enhanced marine biodiversity conservation, fisheries sustainability, and improved sectoral human welfare. As a result of these efforts, USAID Oceans has played an integral role in the drastic changes seen in Asia Pacific's landscape over the last four years in regard to public and private sector interest and capacity for electronic seafood traceability, more holistic fisheries management, public and private sector collaboration, and attention to the human aspects of the seafood industry and their supply chains. The program leveraged over four million USD from its regional partners to bolster these efforts and capacitated over 1,500 stakeholders that will continue to be ambassadors for change after the program's conclusion.

Building off this progress, lessons learned, and the program's internal and external evaluations conducted during its lifetime, USAID Oceans focuses on continued capacity building, scaling, and long-term sustainability of program investments. In the final year of the five-year program, USAID Oceans is currently working to implement its final activities in the region and is preparing to culminate activities in its learning site in the Philippines.

Four key activities formally served as the final event led by USAID Oceans in the Philippines and they signify the closeout and transition of project objectives to various partners to be conducted beyond the life of project. The closeout event included four components:

1. The launching of the FishMon Center at BFAR 12 (January 27, 2020)
2. A tour of the enhanced FishMon Center at the national level (February 4-5, 2020)
3. A final workshop in Quezon City to share lessons learned and experiences between various government and non-government partners (February 5, 2020)
4. A day-long eCDT technology showcase followed by a half-day demo and facilitated discussion in Iloilo City, as requested by USAID Philippines Mission (February 11-12, 2020)

The tour and launching of the FishMon Centers in Manila and General Santos City exhibited the support provided by USAID through USAID Oceans and Fisheries Partnership to BFAR to develop and implement the national eCDT system (eCDTS). The workshop highlighted what has been done by various partners and First Movers at the General Santos City learning site and across the country through the sharing of lessons learned with a broader Philippines audience as part of the socialization of BFAR's emerging national eCDTS. This is important given BFAR's intention to implement eCDT technologies across the country across fishery supply chains. The technology showcase provided key actors and stakeholders in fishery supply chains from the Central Visayas and other regions, such as blue swimming crab fisheries in Iloilo City, about available technologies that can be used for eCDT.

Objectives

The objectives of the close-out activities were as follows:

1. To celebrate and formally close USAID Oceans project activities at the General Santos Learning Site and throughout the Philippines.
2. To share project-related experiences and lessons learned from key partners (BFAR, Department of Environment and Natural Resources Regional Office Protected Area Management Board [DENR-PAMB], LGUs, First Movers from both commercial and municipal fisheries, SFFAI, FAME, WWF, and Conservation International [CI], etc.), with a broader audience from different regions across the Philippines in terms of: the use of eCDT technology to combat IUU fishing; engaging the private sector and strengthening PPPs; taking an EAFM at multiple scales; and addressing human welfare and gender equity concerns in fisheries management.
3. To showcase eCDT technologies currently available to relevant actors and stakeholders.
4. To discuss and identify opportunities to scale up the initiatives and technologies implemented under the project into other geographies and fishery supply chains by partners in the future.
5. To recognize and thank project partners for their invaluable contributions and dedication to USAID Oceans.

Expected Outputs and Impacts

The close-out activities were expected to result in:

1. Transition of project activities with relevant partners, to be sustained beyond the USAID Oceans life-of-project
2. Improved stakeholder understanding of the available technologies, processes, and requirements for implementing eCDT, including costs and benefits
3. Public recognition and appreciation of project partners and key stakeholders

Table I. Summary of Participants at Philippines Close-Out Activities

ORGANIZATION	BFAR 12 FishMon Launch		BFAR CO IMEMS FishMon Tour		Partner Recognition Workshop		Technology Showcase	
	M	F	M	F	M	F	M	F
National Government Agency (NGA)								
BFAR Central Office	3		37	15	17	15	5	4
BFAR Regional Offices	9	8			4	3	11	18
Other NGA offices (DA, DENR, Philippine Fisheries Development Authority (PFDA), Bureau of Agricultural Research (BAR)			2	7	2	2		3
Local Government Units (LGUs)					1	4	5	1
Academe	4	3			2	1	2	
Local Partners								
ATH					7		1	
SFFAI		1			1	2		
Commercial First Movers					3	7	1	
NGOs & Private Sector	1		5		4	6	16	2
Fisherfolk							10	
SEAFDEC						1	1	
USAID & USAID programs				2	3	4		1
USAID Fish Right			2		1		6	5
USAID Oceans	2	3	1	1	5	4	3	3
Subtotal	19	15			50	49	61	37
TOTAL	34		72		99		98	

Summary of Activities

The USAID Oceans *Philippines Learning Site Close-Out* consisted of the following four activities shown in Table 2.

Table 2. Schedule of Activities for Philippines Closeout Event

DATE	ACTIVITY	VENUE
January 27, 2020	Launch of the FishMon Center	BFAR 12 Regional Office, General Santos City
February 4-5, 2020	Tour of the IMEMS FishMon Center	Navotas Fish Port Complex Navotas City, Metro Manila
February 5, 2020	Philippine Learning Site Partners Recognition and Handover Workshop	Sequoia Hotel, Quezon City, Metro Manila
11-12 February 11-12, 2020	Technology Showcase	
	Day 1: Sharing of Lessons Learned and Technology Market Place	Westown Hotel, Iloilo City
	Day 2: Field Demonstration and Facilitated Discussion	Iloilo Fish Port Complex (IFPC) Barangay Tanza, Iloilo City



I.1 SCHEDULE OF ACTIVITIES

The launching of the Fisheries Monitoring (FishMon) Center of the office of the Bureau of Fisheries and Aquatic Resources (BFAR) Region 12 was held on 27 January 2020. The FishMon Center is housed in the Satellite Office of BFAR 12, in General Santos City. It is the first such regional FishMon Center in the country.

The launching activity proceeded as outlined in the program agenda:

Table 3. Agenda for BFAR 12 FishMon Center Launch, January 27, 2020

TIME	ACTIVITY	LEAD
8:00 - 8:30	Registration	Secretariat
8:30 - 10:00	Opening Prayer	Secretariat
	National Anthem	Secretariat
	Welcome Remarks	Dir. Usop D. Pandaliday, Jr. <i>Regional Director, BFAR 12</i>
	Inspirational Message	Ms. Rebeca F. Andong <i>PH Country Coordinator, USAID Oceans</i>
	Ribbon Cutting for the FishMon Center	RD Usop Pandaliday (BFAR 12), and Ms. RF Andong, USAID Oceans
10:30 - 11:00	Briefing on the Capacity of the FishMon Center	Mr. Glenn Padro Sr. Fisheries Regulatory Officer & OIC - Fishery Regulatory BFAR 12
		Mr. Elviro A. Cinco CDT Specialist, MSUNFSTDI

1.2 PARTICIPANTS

Thirty-four participants were present at the BFAR 12 FishMon Launch, with proportionately more males than females (Table 4). Half of the participants were representatives of the BFAR 12, which consisted of top management and rank and file. BFAR Central Office was represented by three programmers from its eCDTS Development Team. Other agencies represented were FAME and SFFAI. The eCDT team of MSUNFSTDI was present because the launch was dovetailed into a training that they conducted.

Table 4. Summary of Participants attending BFAR 12 FishMon Launch

ORGANIZATION	MALE	FEMALE
BFAR 12	9	8
BFAR Central Office	3	-
FAME	1	-
SFFAI	-	1
MSUNFSTDI	4	3
USAID Oceans	2	3
Subtotal	19	15
TOTAL	34	

1.3 FISHMON LAUNCH HIGHLIGHTS

In his opening message, Regional Director of BFAR 12, Mr. Usop D. Pendaliday, Jr., reminded the BFAR staff of the importance of the region in the fisheries industry. As such, he expressed his thanks to USAID Oceans for making it possible for the region to gain the added capacity for fishery monitoring through the eCDT systems.

He also thanked USAID Oceans and MSUNFSTDI for the capacity building provided to the regional staff on the use of the IDS. This is a mobile-based app for data analytics using available eCDT data. He encouraged all participants to learn as much as they could because they would be training others in the future.

RD Usop said that while the USAID project aimed to combat and deter IUU fishing, and to conserve and protect our marine biodiversity, the bottom line for all was “to ensure food security through sustainable development and effective resource management.” He furthered that these were aligned with the major programs of DA Secretary William Dar on promoting “*Masaganang Ani at Mataas na Kita*”. He closed by stressing the need to improve the livelihood of all fisherfolk.

For her part, USAID Oceans Country Coordinator, Ms. Rebecca Andong, began by thanking all the partners who contributed to the “many successes” that the project achieved. These partners included the members of the technical working group, the commercial and small-scale first movers, the local government units, BFAR Regional Office 12, and the MSU Naawan Foundation.

Citing many firsts accomplished through the partnerships established in the project, she stressed that without the cooperation, support, and engagement of all, “we would not be here today.” Aside from the first regional FishMon center, other accomplishments include the crafting and adoption of the Fisheries Annex which is a fisheries plan for the Sarangani Bay Protected Seascape, and the Sustainable Fisheries Management Plan (SFMP) for the Sarangani Bay and Sulu-Sulawesi Sea.

Another first accomplished through the project was engagement and participation of the first movers with BFAR and a private company, FAME, in the testing of a system for eCDT. The first movers for small scale fisheries were among the members of the ATH and from the commercial fisheries sector are those of the SFFAII. Ms. Andong attributed much of the success of the technology testing to the willingness of the first movers to engage, to learn, and to collaborate.

Ms. Andong highlighted the need to recognize the collective accomplishments of everyone. Aside from the development of the eCDTS, she mentioned that the following were accomplished as well: (1) enhanced and supported the use of eCDT to support fisheries management; and, (2) conducted various capacity building activities through trainings, workshops on CDT, EAFM, gender sensitivity, gender equity and empowerment, and including financial empowerment for women in fisheries.

She pointed out also that local partners will continue to play a crucial role not only locally but contribute to regional advances in developing and managing technologies and systems that capture essential eCDT data, advocating for gender equitable policies and practices in the industry, and in implementing sustainable fisheries management plans.

With the project close, Ms. Andong encouraged the participants to start planning beyond the USAID Oceans initiatives, especially for next steps to sustain, improve and scale up activities to achieve the shared objectives of effectively managing and conserving our fisheries.

Regional Director Pendaliday and Ms. Andong cut the ribbon to the FishMon center and the Regional Director then was briefed by Mr. Glenn Pardo (BFAR I2) and Mr. Elviro Cinco of MSUNFSTDI.



Regional Director of BFAR I2, Mr. Usop Pendaliday Jr.,



USAID Oceans Country Coordinator, Ms. Rebeca Andong, giving opening remarks



RD Usop being briefed by Mr. Elviro Cinco, eCDT Specialist from MSUNFSTDI



ACTIVITY II: VISIT TO THE INTEGRATED MARINE ENVIRONMENT MONITORING SYSTEM FISHMON CENTER

NAVOTAS FISH PORT COMPLEX | METRO MANILA

2.1 SCHEDULE OF ACTIVITIES

The tour of the FishMon Center in Manila aimed to show the support provided by USAID through USAID Oceans and Fisheries Partnership to BFAR to develop and implement the national eCDT system. The visit on February 4 involved the participation of the USAID team (including the Oceans team), the private partners (FAME, MSUNFSTDI), and the top management of BFAR (Assistant Director and all Department Heads). All Day 1 participants were present for the second visit which included Dr. William Dar, the Secretary of Agriculture and a few members of his staff.

Table 5. Schedule of Activities for the Two-Day BFAR FishMon Center Visit

TIME	ACTIVITY
February 04, 2020	
8:15 – 8:30	Assembly at Sequoia Hotel Quezon City
8:30 – 9:30	Travel to BFAR IMEMS at Navotas Fishport Complex
9:30 – 10:00	Arrival, Registration and Coffee
10:00 – 11:30	Technical Briefing about the Philippines eCDT system and demonstration in the use of the facilities Mr. Zaldy P. Perez, Officer in Charge, BFAR Fisheries Information Management Center
11:30 – 12:00	Return to Hotel/Office
February 05, 2020	
Part I: Tour of Integrated Marine Environment Monitoring System (IMEMS) FishMon Center	
6:00	Check in at IMEMS FishMon Center, Navotas Fish Port Complex
6:15 – 6:45	Technical Briefing Mr. Zaldy P. Perez, Officer in Charge, BFAR Fisheries Information Management Center
6:45 – 7:00	FishMon Center Tour
7:00 – 7:30	BFAR media event
7:30 – 8:00	Breakfast
8:00 – 9:00	Travel to Sequoia Hotel

2.2 FISHMON VISIT HIGHLIGHTS



Dr. Val Randolph Madrid (MSUNFSTDI) demonstrating the IDS app

Upon the arrival of the participants at the Navotas Fish Port, they were brought to the FishMon Center for the briefing. Mr. Zaldy Perez, OIC of the Fisheries Information Management Center (FIMC), explained the enhanced capacity of the FishMon Center. Together with his team, they demonstrated the entire eCDT process from fish capture to the issuance of a catch certificate. Using the hardware provided through USAID Oceans, Mr. Perez and Ms. Jelyn Ramos, FIMC Staff, trace what happens at every step of the process - what information goes into the system, how the page looks like for that step, and then the outputs for that step and finally, how this feeds into the next step of the process.

A highlight of this demonstration was the real time uploading of a log sheet by a purse seiner, Virgin Mary, owned by Marchael Sea Ventures Corporation (MSV) out of General Santos City. This elicited applause from the audience as did the demonstration of the process' final output - the catch certification with all the completed information, QR code and approvals from the various validators and approvers within the BFAR system.

Throughout the presentation, Mr. Perez, Ms. Ramos and Assistant Director of BFAR Ms. Drusila Esther Bayate replied to queries. These revolved mostly around ensuring the accuracy of the information being put into the system, and whether those vessels using “fake” documents could be tracked/traced. Participants wanted to know whether the catch certificate was required also for domestic markets and whether the system was integrated with other BFAR systems already existing. Finally, On the query whether there was an intention to put up a call center to handle calls from users that may have issues about the system, Mr. Perez said that currently, applicants were informed only through email about the status of their applications.

Mr. Len Garces then introduced the next speakers, Mr. Elviro Cinco and Dr. Val Randolph Madrid, who demonstrated the capabilities of the FAME technology to capture and analyze data from municipal fisheries and the IDS, respectively. Mr. Elviro A. Cinco, CDT specialist of MSUNFSTDI, showed how the FAME technology worked. He showed the visualizations possible through a web app using the data coming from the transponders, which were installed onto the participating fishing vessels. He explained how the data is collected through Near Field Communication (NFC) cards that fishers tap on the transponders on their respective boats.

Dr. Val Randolph Madrid heads the development team from MSUNFSTDI which developed the IDS mobile app. He introduced the app to the audience and proceeded to run through the use of the app to show what visualizations were possible given its current capacity. As with the earlier discussion on eCDT, both Mr. Cinco and Dr.



Mr. Zaldy Perez and Ms. Jelyn Ramos demonstrating the eCDT system of BFAR

Madrid fielded questions from the participants and gave additional information regarding the electronic CDT tools.

For both systems, questions revolved around data security and data privacy. Much was made about ensuring that some sensitive information, like name of fishing vessel and name of vessel owner, should not be made available to the public user. Both presenters assured the audience that the highest level of access, which provides complete fishing activity information including fishing ground location, is only for BFAR and will not be made available to the public. Additionally, Dr. Madrid mentioned that users of the IDS app can only take a screen shot of the visualizations they get and cannot download the data from their mobile phones.



Left: Secretary Dar and Mr. Parks walking together to the Navotas FishMon Center. Right: The head of BFAR Information and Fisherfolk Coordination Unit (IFCU), Mr. Nazario Briguera, introducing the demonstration. Behind him is BFAR FIMC head, Mr. Zaldy Perez.

Mr. John Parks, Chief of Party (COP) of USAID Oceans, closed the presentations by congratulating the MSUNFSTDI and BFAR for “working together in advancing the use of the CDT data not only for traceability but also now for management. I just want to give you all a round of applause.”

The Secretary of Agriculture, Dr. William D. Dar, was unable to join the first day tour on February 4. Thus, another tour was scheduled for 05 February. USAID and USAID Oceans staff joined the DA Secretary for the tour on Day 2. During this tour, Mr. Perez and Ms. Ramos demonstrated the BFAR eCDTS for the benefit of the DA Secretary and other new visitors.



Left: Secretary Dar listening to the presentation about the eCDTS; Right: Dr. Dar leaving the FishMon Center after the demonstration.



ACTIVITY III: PARTNERSHIP RECOGNITION WORKSHOP

3.1 SCHEDULE OF ACTIVITIES

The *Partner Recognition and Handover Workshop* was governed by the theme: “Highlighting Milestones and Setting the Future Direction.” Specifically, the workshop was conducted to share project-related experiences and lessons learned from key partners (BFAR, DENR-PAMB, LGU, First Movers from both commercial and municipal fisheries, SFFAI, FAME, WWF, The National Network on Women in Fisheries [WINFISH], and CI, among others), with a broader audience from different regions across the Philippines in terms of: the use of eCDT technology to combat IUU fishing; engaging the private sector and strengthening PPPs; taking an ecosystem approach to fisheries management (EAFM) at multiple scales; and addressing human welfare and gender equity concerns in fisheries management. The event was held on 05 February 2020 at the Sequoia Hotel in Quezon City, Philippines.

Table 6. Program of Activity for the Philippines Closeout Event

TIME	ACTIVITY
8:00 – 8:30	Registration
8:30 – 9:30	<p>Opening Session</p> <p>Opening Remarks</p> <ul style="list-style-type: none"> - <i>Comm. Eduardo B. Gongona</i> Undersecretary for Fisheries, Department of Agriculture (DA) National Director, BFAR - <i>Ms. Cristina Velez Srinivasan</i> USAID Oceans COR, USAID RDMA - <i>Mr. John Parks</i> Chief of Party, USAID Oceans <p>Stakeholder Testimonials</p> <p>Keynote Message</p>

TIME	ACTIVITY
	<p><i>Dr. William D. Dar</i> Secretary, Department of Agriculture</p>
9:30 – 10:00	<p><i>Coffee break and group photo</i></p>
10:00 – 12:00	<p>Session 1: Setting the Future Direction for Electronic Catch Documentation and Traceability (eCDT)</p> <p><i>Facilitator: Mr. Farid Maruf, CDT Specialist, USAID Oceans</i></p> <p>Presentations on Lessons Learned, Benefits, and Next Steps from USAID Oceans' Partnerships</p> <ul style="list-style-type: none"> - BFAR: Central Office and Region 12 - Technology Partner: Futuristic Aviation and Maritime Enterprise Inc. (FAME) - First Movers: Commercial Fisheries (SFFAI); Alliance of Tuna Handliners
12:00 – 13:00	<p><i>Lunch and video presentations</i></p>
13:00 – 14:30	<p>Session 2: Setting the Future Direction for Human Welfare and Gender Equity</p> <p><i>Facilitator: Dr. Marieta Sumagaysay, USAID Oceans Grantee Team Lead, The National Network of Women in Fisheries</i></p> <p>Gender Equity and Women's Empowerment in Sustainable Fisheries Management; Understanding Gender Responsiveness in Fisheries Management; Capacity Building on Gender in Ecosystem Approach to Fisheries Management (EAFM) and eCDT; USAID Oceans' gender videos</p> <ul style="list-style-type: none"> - BFAR - LGU SEAFDEC
14:30 – 15:30	<p>Session 3: Setting the Future Direction for EAFM</p> <p><i>Facilitator: Mr. Len R. Garces, Fisheries Management Specialist, USAID Oceans</i></p> <p>Sustainable Fisheries Management Planning</p> <ul style="list-style-type: none"> - BFAR - Sarangani Bay Protected Seascape Protected Area Management Board - Local Government Units <p>EAFM grantee presentations</p> <ul style="list-style-type: none"> - Mindanao State University Naawan Foundation: eCDT Data Visualization Dashboard - Worldwide Fund for Nature, Philippines: Benefits of eCDT Data for Fisheries Management
15:30 – 16:15	<p>Session 4: Take Aways and Synthesis</p> <p><i>Facilitator: Dr. Lily Ann D. Lando, Lead Facilitator, USAID Oceans</i></p>
16:15 – 16:40	<p>Partner Recognition</p> <ul style="list-style-type: none"> - Thanks to Government Partners, First Movers, Technology Partners, and Grantees <p>Stakeholder Testimonial (BFAR)</p>
16:30 – 17:00	<p>Closing Session</p> <p><i>Ms. Cristina Velez Srinivasan</i> USAID Oceans COR, USAID RDMA</p>

TIME	ACTIVITY
	<i>Comm. Eduardo B. Gongona</i> Undersecretary for Fisheries, Department of Agriculture National Director, BFAR

3.2 PARTICIPANTS

There were 99 participants to the handover workshop - with a 50:50 proportion of male and female. Most of the participants came from the BFAR, with a contingent of 32 from the Central Office, and 7 from BFAR Region 12 (Table 6. Other government offices represented were the National Fisheries Research and Development Institute (NFRDI), the Region 12 Office of the DENR, and the Bureau of Agricultural Research (DA BAR).

Table 7. Participants profile from the Handover Workshop

ORGANIZATION	MALE	FEMALE
National Government Agencies (NGAs)		
Bureau of Fisheries and Aquatic Resources Central Office (BFAR CO)	17	15
BFAR 12	4	3
National Fisheries Research and Development Institute (NFRDI)	1	
Department of Environment and Natural Resources (DENR) Region 12	1	
Department of Agriculture, Bureau of Agricultural Research (DA BAR)		2
Local Government Units (LGUs)	1	4
Fishers & First Movers		
Alliance of Tuna Handliners (ATH)	7	
First Movers	3	7
SFFAI	1	2
NGOs	3	5
SEAFDEC		1
MSUNFSTDI	2	1
USAID & USAID PROGRAMS	4	3
US Embassy Environment, Science, Technology and Health Section		1
Private Sector	1	1
USAID Oceans	5	4
Subtotal	50	49
TOTAL	99	

3.3 OPENING SESSION

The Opening Remarks were given by Undersretary Eduardo B. Gongona (Ret. PCG), Ms. Cristina Velez-Srinivasan, and Mr. John E. Parks. Mr. Gongona, Undersecretary for Fisheries and the National Director of the Bureau of Fisheries and Aquatic Resources (BFAR) welcomed all participants to the workshop.

“The closeout event marks the end of the USAID Oceans’ work in the Philippines and the transition of program initiatives and ongoing efforts to achieve shared objectives to our capable regional and local partners. This event is an opportunity for us to share lessons learned over the past five years related to improving sustainable management of fisheries, developing and implementing eCDT technologies, advancing human welfare and gender equity, and establishing strong partnerships to achieve a common goals,” said Mr. John Parks, USAID Oceans Chief of Party, during the closeout event.

The USAID Oceans Partnership, while inevitably concluding, sees a continued need to manage and conserve Southeast Asia's fisheries through collecting and using data to guide management efforts.

"In addition to providing an integrated platform to visualize and access existing catch documentation and traceability systems, including BFAR's national eCDT system, these centers will be foundational for analyzing eCDT data and using those data to guide sustainable fisheries management practices," he said.



Ms. Cristina Srinivasan (USAID RDMA) delivering opening remarks Credit: A. Jacalan/DA AFID

Ms. Ariane Shane Valdez, Fishery Coordinator of the Municipality of Maitum in Sarangani Province gave a testimonial on behalf of the municipality as well as of the other municipalities engaged in the program (See Annex II or full text of the speech.) She first thanked the USAID Oceans for including them in the implementation of the program, especially because they, too, are committed to combating IUU fishing in their municipality. Ms. Valdez said that the Project provided opportunities in the business sector, as more investors are setting up their businesses on buying the tuna that were tagged through the municipal eCDTS implementation. Further, the eCDTS helped them practice on documenting key information on the harvest and transport of fishery products. She also pointed to the "widening of their views" on EAFM across their coastal and marine areas. Ms. Valdez says that the Maitum recognizes that their fisheries still face many threats but that they have been challenged through USAID Oceans to strive hard to continue implementing the traceability of all their fishery products. They will improve transparency and accountability in the seafood chain through combating IUU fishing.

After being introduced by Comm. Gongona, Secretary Dar thanked USAID for the invitation to attend the Handover Workshop and said that the DA was privileged to be part of the project, specifically to be part of implementing science-based resource management measures against IUU fishing. Citing USAID as among its most reliable partners, he said that the eCDTS can "help us safeguard the fisheries supply chain against illegally caught fish." He also hoped that the ASEAN Member Countries can be inspired by this development.



Comm. Eduardo Gongona (BFAR) delivering opening remarks Credit: BFAR IFCU

Dr. Dar expressed pride that this initiative has been instrumental in the development of a regional eCDTS but was excited to see how the eCDTS can complement the FMAs and other measures in place to protect Philippine fisheries. As the FMAs are institutionalized, he urged the scaling up of the eCDTS nationwide.

Sharing the New Thinking in Agriculture, he said that the battle cry now is "Masaganang Ani, Mataas na Kita." And as the Philippine agri-fishery sector seeks to modernize, several immediate actions will be done to revive the industry which has been underperforming for the past several years. With the fishery sector, Dr. Dar shares

that he has directed the relevant government agencies to improve on internal coordination. Specifically, he wants to see the BFAR, NFRDI and PFDA to harmonize their work into a National Fishery Development Program Strategy. Also, he has directed them to work with the fishers through a “Big Brother, Small Brother” approach so that municipal and commercial fishers work together improve sustainable resource sharing.

He hopes that the lessons to be shared by partners enrich the strategies that the Department has developed for agri-fishery modernization, and as well, provide input for more sound policies to this end.

In closing, he recognized that partnership is crucial to success in these endeavors and looks forward to a continued partnership with USAID and with other partners and stakeholders in future programs to combat IUU fishing. (Refer to attached script of his speech in Annex II.)



DA Secretary William D. Dar giving the keynote address at the handover ceremony.

3.4 SESSION I: SETTING THE FUTURE DIRECTION FOR ECDT

FACILITATOR

Mr. Farid Maruf, USAID Oceans

PANELISTS

- Eugene Casas, BFAR I2
- Rosanna Bernadette P. Contreras, SFFAI
- Arcelio Fetizanan, Jr., FAME
- Zaldy Perez, BFAR
- Diony Seromines, ATH
- Ms. Rhona De Guzman, Gentuna/First Mover

Mr. Farid Maruf convened the first session by calling the panelists on stage and asking them to introduce themselves. Then he gave an overview of the panel discussion to provide context and background for the discussions to follow (Presentations are in Appendix 4). After which, he then led the panel in their discussion of lessons learned and moving forward.

Mr. Maruf started off by saying that exposure in the project triggered different way of doing, specifically by working through with existing regulations and/or systems. This allowed everyone to be comfortable with each other because they started from what they already knew. Adding to the success of the project was the number and variety of partners involved. There really was a range of participating organizations who each understood their role in the project.

Also contributing to the success of the project was resource generation and/or sharing. It wasn’t always about monetary contributions, although some partners did engage their own budgets in

activities within the program. Much was contributed in terms of man-hours and other non-monetary contributions like commitment of focal persons.

Ms. Rosanna Contreras of SFFAI identified three important lessons from their group. First, that the legal framework for eCDT must be finalized so that they also have justification to push for it among their members. Second, it was a plus factor that the developers were exposed to other technologies available because this expands the list of possible options for intended users. Third, a

supply chain analysis is in order to validate the key data elements and the specific points in the chain that are critical to traceability.

She said that there are still several challenges that must be faced. These include final adjustments to the technologies that were piloted, whether BFAR can capture these adjustments and act on them, updating of the BAC 251, and a regulation/policy to cover the use of eCDT once it is ready to roll out.

In support of the roll-out, Ms. Contreras recommends a time-and-motion study to check where possible bugs and kinks might be in the process, where possible delays may occur. As well, capacity must be built for other industry stakeholders and the issue of connectivity addressed. Finally, she said that the target should be universal use of the technology within the industry.

Ms. Rhona de Guzman of GenTuna, a First Mover company, also recognized the efficiency of the eCDT system. She compared the difference between the manual documentation versus electronic system. According to her, electronic systems reduce processing time thus creating less delay for the company to secure certification and export documents.

Mr. Zaldy Perez of BFAR CO said that a valuable lesson for him was the need to deal with the process and engage with the people in the field so that he could understand their situation and their needs better. This then becomes the basis for building or developing the best solution applicable to current systems and processes. Before starting the development process however, he reminded everyone first to determine all processes, inputs and outputs.

The final determination however of a system's success, he said, is whether it is used by the parties concerned upon deployment and/or scaling up. Finally, he said that the system development must be backed up with legal requirements/frameworks.

Mr. Eugene Casas of BFAR 12 stressed that constant communication, proper coordination and cooperation of all sectors is necessary in projects like this. "We must not leave behind any of the stakeholders, especially the small fishers," he said. He stressed that there must be standard operating procedures, and everyone involved must know what they are. In building the eCDT system, it is important to identify the KDEs immediately and to hire/engage/consult experts early on.



Ms. Rosana Contreras (SFFAI) and Mr. Zaldy Perez (BFAR CO) in the Panel on eCDT (Photo credit: BFAR IFCU)

"Help us to convince others to be more open and cooperative," said Mr. Diony Seromines of the ATH. He said that many of the small-scale fishers were wary of government and not entirely trusting of government workers. Thus, he said that constant and open communication is of utmost importance. He said that when they know the purpose and intention of the project, it will be easier for them to cooperate.

For his part, Mr. Arcelio Fetizanan Jr. of FAME said that his most important outcome was the improvement of his company's product through the partnerships that they had with other companies and institutions. He said that

he learned the importance of building platform for collaboration and integrating between different systems.

They expressed their gratitude in their closing statements. Mr. Casas thanked USAID and USAID Oceans for engaging BFAR 12. Ms. Contreras thanked the First Movers, saying also that through their involvement and cooperation they all have painstakingly struggled together and have exceeded expectations. Mr. Seromines hoped that the small fishers would not be forgotten in future projects. “We shall cooperate”, he said. Rounding up the closing statements, Mr. Perez stressed that cooperation/collaboration is the key to success in this project. Make sure, he said, that when there is a product, it must be deployed, and capacity must be built around its deployment and use. Finally, he acknowledged his team at BFAR for their hard work.

3.5 SESSION 2: SETTING THE FUTURE DIRECTION FOR HUMAN WELFARE AND GENDER EQUITY

FACILITATOR

Dr. Marieta Sumagaysay,
WINFISH

PANELISTS

Ms. Jariya Sornkliang,
SEAFDEC

Ms. Movima Gono,
CAO, General Santos
City

Ms. Mildred Mercene-
Buazon, BFAR CO

Dr. Marieta Sumagaysay, WINFISH, led the panel on setting the future direction for human welfare and gender equity, with panelists from BFAR, SEAFDEC and the LGU of General Santos City.

The starting question was a baseline question on how the panelists would describe gender activities and programs and/or gender mainstreaming in their respective organizations five years ago. Ms. Buazon said that the leadership did not appreciate gender or even gender equality and thought of it only as counting the number of males and females attending a meeting or activity. Ms. Gono mentioned that there was an ordinance regarding gender in the municipality, but fisheries was not included. Ms. Sornkliang related that while they did talk about equal opportunities for jobs, they didn’t even have a concept of what gender was.

As to whether other human welfare issues were tackled, the panelists responded in the affirmative, but the levels of engagement were quite different. For SEAFDEC, there was a program to respond to issues in the workplace as well as, safety at sea. BFAR tackled the housing or resettlement of fisherfolk, while the LGU had some initiatives on providing livelihoods for women. In the latter however, the City Agriculturists Office (CAO) was not involved.

Fast forward to the present and much has changed for the organizations represented in the panel. The changes that took place run the gamut from understanding to appreciation, skills developed, mechanisms put in place and concrete actions done.

Ms. Buazon mentioned the great improvement in appreciation by the leaders. So much so that the Director issued a policy requiring that all proposals/plans/programs/activities have a component on gender equality and human welfare. The Planning Division checks all such proposals for this requirement and returns those that do not meet the criteria.

For Ms. Gono, her office has been consistently involved with the USAID Oceans activities and they have participated in all gender-related activities. They have also been charged with choosing and inviting participants from the communities to join such activities. Similarly, for Ms. Jariya, she has been continuously involved in gender activities. She and her colleagues now know what gender is -

having built the concept through their engagement with USAID Oceans. They know how mainstreaming can be done and that capacity around gender can be built in every organization.

The panelists were then asked about their greatest challenge and how they overcame such? Ms. Buazon mentioned the lack of appreciation for the gender program and the attitude of colleagues about gender. She said it was difficult to have to gauge everyone's reactions to the gender program and to try to understand where each was coming from. She said that many times her patience was tested but that she kept calm by thinking about where they were coming from and trying to adjust and to understand.

Ms. Gono shared about the relative ease with which she responded to a survey on gender and thanked WINFISH for capacitating her so that she could understand the questions and answer appropriately. She said that her colleague from agriculture has not yet been able to complete the questionnaire.

Ms. Sornkliang on the other hand said that it was more on being able to check the gender responsiveness of programs, activities, and plans. She said that we need to be capacitated, we need to have the skills, we need to have the tools to do so. Gender, she said, is everybody's business and not just the work of a focal person.

For the panelists, there were five facilitators of gender mainstreaming: (1) support/appreciation of the director/management, (2) cooperation among implementers, (3) commitment of the GAD focal system or presence of an appropriate mechanism, (4) presence of gender-sensitive legal instruments, and (5) presence of a gender roadmap (e.g. SEAFDEC Gender Strategy).



*The Gender Panel led by Dr. Marieta Sumagaysay (WINFISH) and panelists from left: Mr. Jariya Sornkliang (SEAFDEC), Ms. Mildren Buazon (BFAR), Ms. Movima Gono (LGU GenSan)
(Photo credits: BFAR IFCU)*

3.6 SESSION 3: SETTING THE FUTURE DIRECTION FOR EAFM

The EAFM presentation was a joint effort of all panelists and the lead facilitator, Mr. Len Garces). He started off the presentation, but all panelist had their turn in explaining their respective subtopics. Mr. Garces gave the background for the EAFM initiatives, highlighting first the essence of EAFM and what was accomplished on the workstream level at the Learning Site.

He backed the presentation on a proposed theory of change where the CDT is captured in electronic system that feeds into a national fisheries information system. This then is linked to a national stock assessment program from which EAFM would be informed and improved.

FACILITATOR

Mr. Len Garces, USAID
Oceans

PANELISTS

- Mr. Efren Hilario,
BFAR CO
- Mr. Glenn Padro,
BFAR I2
- Dr. Sabdullah
Abubakar, DENR I2
- Ms. Arlene Hollerio,
LGU Maasim
- Dr. Asuncion de
Guzman, MSUNFSTDI

Mr. Glenn Padro started the sharing with how EAFM was mainstreamed in the Philippines and then proceeded to the work done at the learning site. He described the policy framework for EAFM in the country, pointing to the Philippines Fisheries Code of 2015 and the Comprehensive National Fisheries Industry Development Plan (2015) as the bases for the EAFM in the country. He then enumerated the experiences at the country level, especially coming out of previous programs like the FSP, FRMP, FISH and EcoFISH. Then he described the EAFM process before sharing the experiences at the learning site.

Dr. Asuncion de Guzman proceeded to describe the innovative digital solution application or IDS app that was developed by the MSUNFSTDI team. She described the elements for analytics of CDT data and how it can be used for fisheries management.

Mr. Garces presented for WWF's Mr. David David about the application of CDT technologies in Mindoro and Bicol. The main aim for the project is to implement FAME technology for municipal fisheries and then adapt, link and apply the BFAR-USAID eCDT in the project sites. The project has assisted in both sites for the development and finalization of their respective Tuna Management Plans, and currently, the Lagonoy Gulf Tuna Management Plan is under final reading by BFAR V, while the Mindoro Strait Tuna Management Plan has been approved by BFAR MIMAROPA.

For the development of the EAFM Plan for the Sulu-Sulawesi Seascape (SSS), Mr. Garces described it as a very long journey but worth it. Collaboratively designed and developed, the SSS EAFM Plan augurs well for SEA because within its shared boundaries is the key to fisheries production, food security and economic development in the Region. As well, any initiatives within the SSS will impact on biodiversity conservation.

Mr. Garces then asked the remaining panelists to provide updates on their respective EAFM initiatives. Dr. Sabdullah Abubakar, Regional Director of DENR I2, provided updates on the progress of the Protected Area Management Plan (PAMP) for the Sarangani Bay Protected Seascape (SBPS). Specifically, he discussed the developments within each of the four major programs of the Fisheries Annex, which is the fisheries management component of the PAMP (Table 8).

Table 8: Progress Related to PAMP FOR SBPS Implementation

Program area	Accomplishments
1. Strengthen anti-IUU fishing measures	- Formulated an enforcement protocol approved by the PAMB
2. Convene a multi-sectoral enforcement body	- Organized with representation up to barangay level - Support of 15K per barangay from PAMB funds - Paralegal training for deputized enforcers - Hotline to receive real-time reports on violations - Hiring of legal officer to pursue cases
3. IEC	- Handouts on resource management measures and compliance to fisheries law - Signages designating strict protection zones and multi-use zones

	<ul style="list-style-type: none"> - Identifying coastal flagship species and socializing through a mascot
4. Designating/delineating strict protection zones	<ul style="list-style-type: none"> - Strict protection zones increased from 23 to 52 - Regular monitoring of sites - Enabling staff to monitor - Delineating areas for fish cages, etc.

Ms. Arlene Hollero of LGU Maasim shared how her LGU focused on Public-Private Partnerships (PPP) for EAFM. Under the leadership of their Mayor, the town worked on the three pillars of EAFM while engaging partners to uplift fisheries management in the municipality. On the aspect of environmental welfare, the town worked with BFAR and DENR to steward its Marine Protected Areas so that its Marine Ecotourism Park and Sanctuary has been adjudged as one of the top locally-managed MPAs in the country. Working with other government agencies, local companies and the fisherfolks, they have instituted coastal clean ups and mangrove planting activities.

For human welfare, the town has federated the fisherfolk organizations so that they can access services and programs from BFAR and other government agencies. As well, capacity building has been supported for the staff of the LGU not only on fisheries and production, but also on disaster risk reduction and management.

On the governance part, the Mayor has been very supportive of the EAFM initiatives, providing funds for the law enforcement program, as well as, hiring additional personnel for the Bantay Dagat. DENR has also helped by providing at least 11 personnel to assist in Bantay Dagat.

For the last section of the panel discussion, Mr. Garces asked the panelists to share the future plans in support of EAFM. Mr. Hilario mentioned that the DA Secretary’s pronouncement that all FMA’s should be operational by year end will open opportunities for pushing EAFM. Each of the 12 FMAs should have an EAFM Plan, he said. He also mentioned that there is a new Technical Working Group that is tasked to roll out EAFM, and that the first action is to train all the FMA regional focal points. Finally, he said that the operationalization of the FMAs and the development of new EAFM plans would require the assistance of NOAA.

For BFAR Region 12, Mr. Pardo mentioned that they plan to work with other regions with whom they share FMA 3. They will use the lessons they learned from earlier projects, as well as, from USAID Oceans so that they can really come up with a good plan for FMA 3. They also hope to use the CDT data via the data analytics app to develop sustainable plans for the regional fisheries.

Dr. De Guzman mentioned upgrading the capability of the IDS app so that it can be used to show/visualize other data beyond CPUE. Should there be opportunity in the future, she encouraged BFAR to work with the app so that its capabilities can be expanded to those requested/required by the target users. For instance, some users requested for the capacity to project volume of catch.

3.7 SESSION 4: SUMMARY AND FINDINGS

The participants were asked to answer three questions and write their respective answers on metacards. The metacards were collected and read to plenary. The cards were then clustered based on common ideas.

1. What commitments can you make post USAID Oceans to push forward the eCDT?

Most of the participants commitment to active participation and continuing in various ways and through various means what has already begun. These ranged from continuing to cooperate in whatever activity they are involved in, continuing to use the transponders and provide data, supporting BFAR in the roll-out and eventual implementation of the eCDTS. Specific commitments were also given like to lobby for the institutionalization of eCDTS and to provide full support with annual funds for implementation at the LGU level and the FMA 3 level.

Table 9. Commitments made by the participants at the handover event

GROUP	AGENCY	COMMITMENT
FISHERS AND FIRST MOVERS	SFFAIL	<ul style="list-style-type: none"> To lobby for the institutionalization of eCDTS Continued support to BFAR in the roll-out/implementation of eCDTS Continue use the eCDTS - pilot testing till its roll-out/implementation
	First Movers	<ul style="list-style-type: none"> Continuous support to eCDTS testing and future deployment Active participation We will continue with our cooperation to USAID/BFAR for continuous fishery improvement
	ATH	<ul style="list-style-type: none"> We commit to continue to use the transponder extended to us. (For FAME: "Ayaw bawia.")
NONGOVERNMENT PARTNERS	FAME	<ul style="list-style-type: none"> To continuously develop software and hardware that will benefit the entire fisheries industry
	MSUNFSTDI	<ul style="list-style-type: none"> Continue app development to include other KDEs Expand app use to other FMAs
	WINFISH	<ul style="list-style-type: none"> Technical assistance and deeper advocacy for gender mainstreaming in fisheries management <ul style="list-style-type: none"> Mentoring of local enablers Gender sensitization of fisheries stakeholders Wider partnerships with local gender champions Production of knowledge products
LOCAL GOVERNMENT UNITS	LGU-GenSan	To continue the implementation of the program started by USAID Oceans - especially on gender for fisheries
	LGU- Glan	Full support with annual funds to sustained fishery management
	LGU- Maitum	The LGU will strive hard to continue on the implementation of eCDTS
	LGU Maasim	Continue to implement the eCDTS and provide policy and regulation on eCDTS implementation
GOVERNMENT OFFICES	DENR	<ul style="list-style-type: none"> Fishery annex will serve as the guide of Sarangani Bay Protected Seascape PAMB in our programs and action on fishery matters
	BFAR	<ul style="list-style-type: none"> Technical and funding support to FMA 3 Pursue the project initiative in fisheries programs Provide the necessary legal assistance in the formulation of appropriate administrative issuances for the full implementation of the project Institutionalize the eCDTS with human welfare and gender components
	BFAR 12	<ul style="list-style-type: none"> We will continue to push for PPP, EAFM, GAD, eCDT mainstreaming Always promote legal and traceable fishery products Expand eCDTS coverage

2. Statements of Appreciation for USAID Oceans

Words of thanks dominated the special comments, as seen in Table 10.

Table 10. Appreciation for USAID Oceans

GROUP	AGENCY	SPECIAL WORDS
FISHERS & FIRST MOVERS	First Movers	Thanks and God bless to USAID, we appreciate everything you do for our country. Mabuhay! USAID Oceans you're awesome partners
	ATH	Daghang kaayong salamat sa inyong dako kaayo nga suporta. Mabuhay ka USAID Oceans. "Big Tanggo"
LOCAL GOVERNMENT UNITS	LGU Maasim	We thank you for USAID Oceans for the support particularly on capacity development and provision of transponder and hi tech equipment for eCDT.
	LGU Maitum	Yes to Oceans 2
		We Love the Oceans We won as one! Affirmative - YES!
LGU GenSan	Thank you for the support you have provided for LGU GenSan (The IT equipment)	
NON- GOVERNMENT ORGANIZATIONS	WINFISH	The 2 grants (GA and gender interventions) benefited the fisheries stakeholders, the partners, and WINFISH for the opportunity to share and learn. Thank you. <ul style="list-style-type: none"> • WINFISH say positive outcomes/short-term impacts • USAID Oceans provided the window, the enabling environment and the inspiration for the CHANGE. AWESOME!
	MFUNFSTDI	Thanks Oceans for trusting Us!
	FAME	Thank you, USAID, for opening opportunities for us.
GOVERNMENT AGENCIES	BFAR 12	BFAR 12 is grateful to USAID Oceans for the support in eCDTS
	SBPS PAMB	USAID Oceans will always be remembered forever by SBPS PAMB on its contribution (Fishery Annex)
	BFAR	Great learnings and sharing of best practices Kudos High appreciation-TYVM

3. Suggestions to USAID/US Government

Most of the suggestions revolved around continuing the project or having a Phase 2 to build on initial gains, continue the partnerships and expand the coverage. Participants also mentioned their willingness to continue partnerships should another initiative be implemented.

Table 11. Suggestions to USAID/US Government from the participants

GROUP	AGENCY	SUGGESTIONS
FISHERS & FIRST MOVERS	ATH	Municipal fisheries management project
	SFFAI	Phase 2 for partnership
LOCAL GOVERNMENT UNITS	LGU Maasim	USAID Oceans not to end the program; continue to provide the transponder to our fisherfolks.
NONGOVERNMENT ORGANIZATIONS	WinFish	Gender pa more!! WinFish will be glad to push for genuine gender mainstreaming of EAFM & eCDT, and similar PPAs and policies for inclusive and sustainable fisheries M&E of gender interventions for impact to the fisheries sector
	MSUNFSTDI	Engage more academic institutions through small grants
GOVERNMENT AGENCIES	DENR	You shall return to the Philippines either to do other projects or monitor all activities you've done. Expansion of eCDTS technology - more training
	BFAR	Assist BFAR in the further development of the IDS app for fisheries management Looking forward to a more advanced level of engagement Seeking assistance for a faster internet connection at GenSan Fishport

4. Synthesis

Dr. Lily Ann Lando synthesized the day's workshop and noted down six C's that have been repeatedly mentioned throughout the day.

First, true COLLABORATION - defined by ATH, SFFAI and First Movers as not just coming together in one place. But it is moving together for a common good and a shared purpose. Working together for the good of our organizations and ourselves, as well.

Several of the groups mentioned that we always need a CHAMPION, wherever he/she may be placed in the organizations whether BFAR, First Movers, or small-scale fisher. Whether that is a gender champion as mentioned by Dr. Sumagaysay in the gender panel - we all need that special somebody who sees beyond our individual roles and sees the bigger picture and pushes us or provides the support.

COMMUNICATION is also a very big C for the participants. As mentioned by our ATH partners, we need to be open, we need to continuously make a connection. Ms. Andong mentioned that sometimes people may be irritated because we keep on coming back and asking people to participate. But we all learn that communication is the key.

CLEAR ROLES. Many stressed that we were successful because everybody had a clear idea what each one was going to contribute. So a lot of us contributed to the success of the project and each

one brought something to the table - everybody contributed. That's why we managed to accomplish what we have in that five years.

Repeated mentioned as well was the need to be constantly building CAPACITY, not only because people come and go, but because new things, especially technologies change, and we need to know. Sometimes the capacity building may be just as simple as Ms. Sornkliang mentioned, just understanding what gender is. Not everybody knows that and it's not just male and female. And for many as Ms. Mildred Buazon said, it's counting how many men and women attended and that's gender. The capacity can start from a simple thing like that to understanding the nuances of enforcement and regulation using this hardware.

And finally, COMPLEMENTATION. Since every one of us, knows something or someone. Our one plus one is not equal to two. It becomes three or four because all the participants brought something which improves on that which the other bring. The first few years were difficult especially in trying to build the trust. Everybody was not used to talking together. But we built the trust and so here we are five years later with so much accomplished.

So, if the gains would be scaled out, everyone says that these six Cs must be present and operational within the partnership for scaling up to be successful (Figure 1).

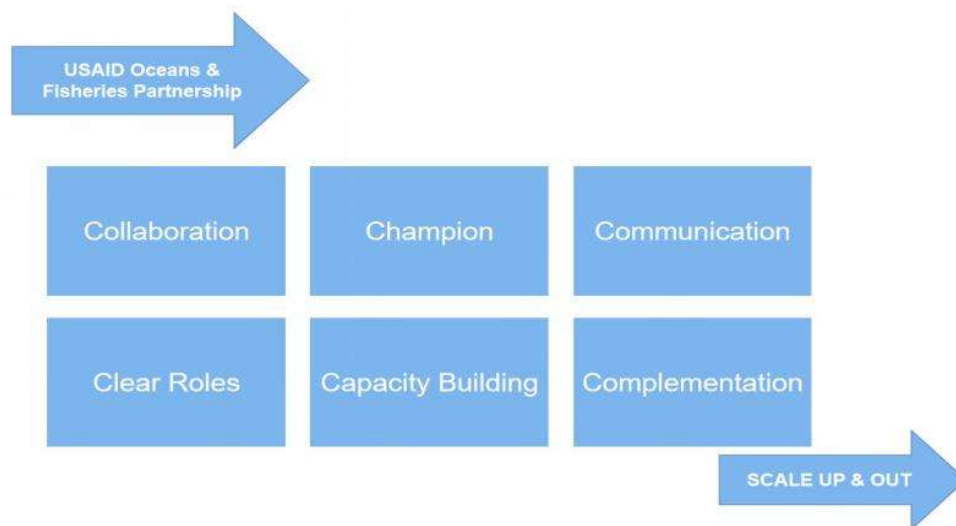


Figure 1. Major themes from the *Partner Recognition and Handover Workshop*

3.8 PARTNER RECOGNITION

RD Usop D. Pandaliday, Jr. gave a testimonial before the awarding ceremony. "The USAID Oceans and Fisheries Partnership Project has changed the way we think of fisheries management and introduced us to innovative ways to achieve sustainable development", he said.

He said that BFAR 12 is now armed with the lessons learned during the implementation of this project. First lesson he shared was that public-private-partnerships deliver equitable results. He said that the Government needs to partner with the private sector for better and more efficient service delivery and to develop innovations in service delivery as well. He cited as an example the development of the Electronic Catch Documentation and Traceability System or eCDT, which,

without the help and cooperation of the fishing sector, through the SOCSKSARGEN Federation of Fishing and Allied Industries Incorporated and the Alliance of Tuna Handliners, might not have survived the planning and development stage. Now, the ECDT is nearing its completion, and although it's not perfect, he believes that it can now be scaled for wider use.

The second lesson is that gender and development must be supported, and its principles be integrated in the conceptualization and planning of livelihood programs. Third, electronic monitoring systems are a powerful tool in combatting Illegal, Unreported and Unregulated Fishing or IUU fishing. Electronic catch documentation and traceability systems, vessel monitoring measures and electronic catch reporting reduce the chances of IUU fishing sourced fish entering the supply chain thus denying them entry to markets both local and global.

The fourth lesson is that in crafting a sustainable fisheries management plan, all available information, data and knowledge concerning the natural ecosystem, the people, the social dynamics, politics, economics and in local and international relationships must be used. And the final lesson is that data analytics developed and accessed through information technology may enable improved sustainable fisheries management.

He assured all that the lessons learned will not go to waste. He stressed that BFAR 12 intended to do the following:

1. use the EAFM approach in all the fisheries development plans,
2. proactively ensure that women will be empowered, through their participation in planning and in decision-making.
3. support the further development of electronic monitoring systems and data analytics systems, including the ECDTS, and demand that such systems be implemented nationally; and
4. ensure the participation of the public sector as a partner in the planning and implementation of future projects in sustainable fisheries management.

Thirty-eight partners/agencies were recognized during the Philippines handover workshop (Figure 2) (See Annex 5 for the complete list of recognized partners.). The recognized partners represented government offices, LGUs, first movers (municipal and commercial), NGOs, and other USAID programs.

GOVERNMENT OFFICES	LOCAL GOVERNMENT UNITS	FIRST MOVERS	NONGOVERNMENT ORGANIZATIONS	OTHER USAID PROGRAMS
<ul style="list-style-type: none"> • BFAR • BFAR XII • DENR XII • DENR BMB • PFDA • SBPS PAMB 	<ul style="list-style-type: none"> • General Santos City • Alabel • Glan • Kiamba • Maasim • Maitum 	<ul style="list-style-type: none"> • ATH • SFFAI • 13 companies with SFFAI 	<ul style="list-style-type: none"> • CI • FAME • GIZ • MSUNFSTDI • WINFISH • WORLD FISH • WWF 	<ul style="list-style-type: none"> • USAID Fish Right • USAID Philippines • USAID Protect Wildlife • USAID SALT/Fish Wise

Figure 2. Partners recognized during the workshop



Some of the partners who were recognized at the handover workshop. Plaques were handed out by USAID COR Cristina Velez Srinivasan and USAID Oceans COP John Parks. [Top row: BFAR (left), DENR 12 (right); 2nd row: ATH (left), SFFAIL (right); 3rd row: First Movers (left), LGU (right); Bottom: FAME (left), MSUNFSTDI (right) (Photo credits: BFAR IFCU)

3.9 CLOSING SESSION

Ms. Cristina Srinivasan and Undersecretary Eduardo Gongona closed the Workshop with their respective remarks. Ms. Srinivasan admired the model of collaboration that she saw built in the project, specifically mentioning how different agencies brought different expertise, skill sets and interests that allowed all the divide and conquer as a team. She shared how this reflects a favorite African proverb: “If you want to go fast, go alone. If you want to go far, go together.”

She quoted Mr. Fetizanan, who said that today was “not a close-out but a kick-off” and said that indeed, for the partners that are bringing the gains forward, today marks their send off into the world. And noting the pioneering work that was done by all, she said that once people start to appreciate the value of eCDTS, then they will come to partner, to learn, and share lessons, too.

Finally, she mentioned that while USAID Oceans is closing, USAID is here for the long term, specifically to support in biodiversity conservation, in achieving sustainable fishing goals.

Undersecretary Gongona stressed the importance of municipal waters and how protecting and conserving the waters and the resources here will result to a better future for municipal fishers and also for Philippine fisheries as a whole. In relation to tuna fisheries, he said that municipal waters are important for tuna because these waters house the favorite food of tuna - the round scad - and as well serves as spawning grounds and sanctuaries for them. If municipal waters are cared for, so are the tuna.

He alluded to the Secretary Dar’s New Thinking in Agriculture, saying that the eCDT initiative fits into the overall program of fisheries modernization. But he mentioned that partnership was important in achieving these goals and that while we would like to see better production immediately, the reality is that we will need to take it one step at a time. He stressed that with the cooperation of all, especially local governments, the fishers and BFAR, we might be looking at a surplus by 2030.

The eCDT is a huge step in the right direction he declared. In connection thus, he thanked the USAID Oceans for its commitment to help protect and preserve the country’s marine resources. This will serve as the foundation on which will be based future efforts to deter IUU fishing, and consequently, improving the lives of the small-scale fishermen in particular.

Sharing the DA Secretary’s statement of Masaganang Ani, Mataas na Kita (Rich Harvest, High Income), he furthered that “fish is our future, water is our leverage.”



Ms. Cristina Srinivasan (USAID RDMA) and Undersecretary Gongona (BFAR) give their respective closing remarks. (Photo Credits: BFAR IFCU)



ACTIVITY IV: ECDD TECHNOLOGY SHOWCASE

4.1 SCHEDULE OF ACTIVITIES

Table 12. Program of Activity during the eCDT Technology Showcase

February 11, 2020 eCDT Technology Showcase Iloilo City	
TIME	ACTIVITY
08:30-09:00	Registration
09:00-09:45	<p>Opening Remarks</p> <p>Com. Eduardo Gongona (Ret. Philippines Coast Guard) Undersecretary for Fisheries, Department of Agriculture and National Director, BFAR</p> <p>Dr. Gina Green Program Manager, USAID Oceans and Senior Associate for Environment and Natural Resources, Tetra Tech</p> <p>Ms. Rebecca Guieb Environment Office, USAID Philippines</p>
09:45-10:15	<i>Coffee break and group photo</i>
10:30-10:50	<p>Fisheries Management</p> <p>Mr. Efren Hilario Capture Fisheries Division Bureau of Fisheries and Aquatic Resources</p>
10:50-11:10	<p>USAID Oceans Overview</p> <p>Mr. Farid Maruf CDT Specialist USAID Oceans</p>
11:10-12:00	USAID Oceans Partner Experience Sharing

February 11, 2020
eCDT Technology Showcase
Iloilo City

TIME	ACTIVITY
	<p>Mr. Marvin Arreo Philippine Cinmic Corporation (First Mover) SOCSEKARGEN Federation for Fisheries and Allied Industries (SFFAI)</p> <p>Mr. Diony Seromines Secretary, Alliance of Tuna Handliners (ATH)</p> <p>Mr. Glenn Padro Senior Fishing Regulations Officer OIC - Licensing and Regulatory Section BFAR 12</p> <p>Mr. Eugene Casas Senior Fishing Regulations Officer OIC - Catch Certification Unit BFAR 12</p> <p>Mr. Zaldy Perez Officer in Charge, Fisheries Information Management Center (FIMC) Bureau of Fisheries and Aquatic Resources (BFAR)</p>
12:00-13:00	<i>Lunch Break</i>
13:00 - 14:20	Partner Presentations
13:00-13:20	<p>Mr. David N. David WorldWide Fund for Nature</p> <p>Mr. Dean Apistar RARE Philippines</p>
13:20-13:40	<p>Dr. Val Randolph Madrid IDS Specialist MSU Naawan Foundation for Science and Technology Development, Inc. (MSUNFSTDI)</p>
13:40-14:00	<p>Mr. Arcelio Fetizanan, Jr. Futuristic Aviation and Maritime Enterprises (FAME)</p>
14:00-14:20	Open Forum
14:20-14:30	<i>Coffee Break</i>
14:30 - 15:50	Technology Pitches
14:30 - 14:50	<p>Mr. Fariz Acron Pointrek</p>
14:50 - 15:10	<p>Mr. Teddy Harmoko Nutrindo</p>
15:10 - 15:30	<p>Mr. Farid Maruf Trafiz</p>
15:30 - 15:50	<p>Mr. Eric Enno Tamm ThisFish</p>
15:50-16:40	Technology Market Place
16:40-17:00	<p>Wrap-up Lily Ann Lando Facilitator - USAID Oceans</p> <p>Way Forward</p>

February 11, 2020 eCDT Technology Showcase Iloilo City	
TIME	ACTIVITY
	Dr. Nygiel Armada , Chief of Party, USAID Fish Right

February 12 eCDT Technology Field Demonstration	
TIME	
08:30-09:00	Registration
09:00-10:30	eCDT Technology Field Demonstration Mr. Arcelio Fetizanan, Jr. FAME
10:30 -11:30	Facilitated Discussion Mr. Patrick Co USAID FishRight
11:30- 12:00	Wrap up and Way Forward Dr. Nygiel Armada Chief of Party USAID Fish Right
12:00-13:00	Lunch

4.2 PARTICIPANTS

Table 138. Participants' profile on the Technology Showcase

AGENCY	MALE	FEMALE
Fishers, Processors	10	-
NGOs/POs	7	1
Government	23	26
BFAR Other NGAs	16	22 3
LGU	5	1
Academe	2	-
Tech & Other Partners	10	1
USAID	1	1
USAID Oceans	3	3
USAID Fish Right	6	5
SEAFDEC	1	-
Subtotal	61	37
TOTAL	98	

4.3 DAY I: ECDD TECHNOLOGY SHOWCASE

The Technology Showcase program was built around the question, “What are we doing to push eCDD and EAFM forward?” The presentations were then clustered into four: (1) Overview of BFAR and USAID Oceans initiatives, (2) Local eCDD technologies (BFAR, FAME, MSUNFSTDI), (3) presentation of eCDD technologies from Indonesia and ThisFish, and (4) the Technology Market Place.

The program opened with remarks from (1) Comm. Eduardo Gongonga, Undersecretary for Fisheries and National Director of BFAR, (2) Dr. Gina Green, Program Manager of USAID Oceans, and Senior Associate for Environment and Natural Resources, Tetra Tech, and (3) Ms. Rebecca Guieb, USAID Philippines.

Comm. Gongonga remarked how he was already repeating himself, having been present earlier at the Learning Site Partner Recognition and Handover Workshop in Manila. But he said that the message was really the same. We need to take care of our municipal waters and that it can be done through two approaches: the soft and the hard.

The soft approach he said was the *MMK - Malinis at Masaganang Karagatan* - the nation-wide search for the most outstanding coastal community. It’s five criteria he said already address conservation, preservation, sustainability and traceability, accountability, among others. These criteria include: a coastal community must have a marine protected area and marine sanctuary; a successful fish habitat/mangrove rehabilitation project; clean ocean - free of plastic, effluents, and pollutants; three months of off-fishing season so the dominant fish can regenerate in that area; and no illegal fishing.

The hard approach involves relentless operations against illegal, unreported unregulated fishing, and harmonizing the government agencies aligned with environment, maritime, and fisheries to be given a big mandate to protect the 12 fishery management areas inside the municipal water. In so doing, they not only improve fish production but help other agencies to contain crimes that use the seas as a medium - drug, arms and human trafficking, smuggling, terrorism, kidnapping, piracy, poaching, and IUU fishing.

For this later work, the eCDD will be a very valuable tool specifically he said in intensifying the fight against IUU fishing. *“The pilot project of the eCDD was a huge step forward, rooting the sustainable management of our marine resources in science-based policies. The eCDD system provides key information about harvest, processing, and transportation of fisheries products to enhance the traceability from harvest and point of origin to its destination. In conjunction with the implementation of fisheries management areas, it allows us to tailor-fit solutions to the specific profile of fisheries sector in various areas in the country.”*

He reminded everyone that DA Secretary Dar, underscored the need for maintaining transparency by giving our stakeholders easy access to this information. In line thus with the secretary's call to



Comm. Eduardo Gongona (BFAR)(left), Dr. Gina Green (USAID Oceans), and Ms. Rebecca Guieb (USAID

scale up the eCDT system, Undersecretary Gongona said that the ways forward will include securing public accessibility and translating this generated data into useful information that would help make fisheries management more effective. In relation to this all, Sec. Dar directed BFAR, NFRDI and PFDA to cultivate among small and big fishers alike the spirit of shared utilization of our marine resources without compromising sustainability. Calling this the Big Brother-Small Brother approach, the Secretary hopes to engage all the fishers toward a common goal.

As he related the situation in agriculture and fishery, he exhorted everyone to help the poorest of the poor among the fishers, and to ensure that their income increases by legal and sustainable means so that their lives can truly be better in the future. The partnership he said that was built in this project can be used to further the gains for the municipal waters, the municipal fisheries and the municipal fisherfolk.

“The pilot project of the eCDTS was a huge step forward, rooting the sustainable management of our marine resources in science-based policies... In conjunction with the implementation of fisheries management areas, it allows us to tailor-fit solutions to the specific profile of fisheries sector in various areas in the country”- Undersecretary Eduardo Gongona

Dr. Gina Green thanked everyone for their contribution to the accomplishments of USAID Oceans, stating that it is positive people who make positive change. She said that the showcase was part of the formal closure of USAID Oceans in the Philippines and in Southeast Asia and that this workshop would highlight the achievement of the program, as well as, recognize the partnerships established and the lessons learned from the partnerships.

The cutting-edge technology developed in the program, she said, earned for Oceans the Technology Merit Award from the Environmental Business Journal while Tetra Tech chose the USAID Oceans project for its annual Use of Technology Award. So much so that DA Secretary Dar's recommended earlier at the Manila workshop that scaling up was now the next step.

Ms. Rebecca Guieb, USAID Philippines, emphasized two key points - the USAID Oceans worked to set in place the eCDTS to enhance traceability of fish and fishery products as a means of combating IUU. She also emphasized that USAID's role in this was to catalyze development pathways that lead to alliances and deeper collaboration. She said it was not its role to prescribe what the partner country does to push forward, but that it provides opportunities for the partners to find the best options for them and take this forward. As the USAID Oceans closes, she is excited to learn all

about the experiences of the partners and how these could be used to bridge to the next users such as other partners like WWF and CI, and other programs such as USAID Fish Right.

BFAR and USAID Oceans Overview

For this first section of the program, the presenters were Mr. Efren Hilario of BFAR CO, and Mr. Farid Maruf of USAID Oceans. After their presentations, Ms. Rebeca Andong led a panel discussion on the sharing of experiences by USAID partners.

Mr. Hilario discussed EAFM and Ways Forward, beginning with the policy background and framework for establishing EAFM in the Philippines. He then proceeded to describe the experiences in EAFM in the country starting from the FSP, FRMP, FISH and then EcoFISH projects. These projects were designed to reverse the trend of resource depletion, promote long-term sustainable development and address poverty among municipal fishers

They built, promoted various management options such as establishing comprehensive fisheries managements systems, pilot-testing of different livelihood activities, and strengthening institutional capabilities of stakeholders involved in fisheries management. Through the project time, area closures were set up and Registry Systems were established that allowed for the nationwide registration of fisherfolk, and fishing vessels.

Mr. Hilario then described the history of the EAFM in the country and how it now dovetails with the recent establishment of the 12 FMAs. These will require the designation of FMA Management Board (MB) and a Scientific Advisory Group (SAG). Each MB in consultation with the SAG will determine specific Reference Points (RPs) for its FMA, as well as, adopts Harvest Control Rules (HCR). In relation to these, there is a need for capacity building for the personnel to be involved in managing the various FMAs.



Speakers in the overview for the first panel (from left): Mr. Efren Hilario (BFAR CO), Mr. Farid Maruf (USAID Oceans), Mr. Zaldy Perez (BFAR CO), Ms. Rebeca Andong (USAID Oceans) (Photo credits: DP Quimque/USAID Fish Right)

Mr. Farid Maruf gave an overview of the USAID Oceans project, discussing its purpose, scope, primary objectives, strategies, learning sites and expansion sites. He shared that from the original two learning sites in Bitung, Indonesia and General Santos, Philippines, the project has expanded first to Thailand, Malaysia and Vietnam, and is starting in Cambodia, Myanmar, Lao PDR, Brunei Darussalam, Singapore, Papua New Guinea, Solomon Islands and Timor Leste.

He enumerated and described those eCDT technologies that have been developed and/or tested within the project like Pointrek/Inmarsat, Trafiz, and Trace Tales from Indonesia and FAME from the Philippines. Through the project, several impacts were noted, as well as, several lessons learned.

Primary among these is that there is no “one size fits all” when it comes to choosing the technology to use for a particular situation. This is why the most successful initiatives built up from existing systems, and had the backing of strong enforcement while offering clear business models to stakeholders.

FACILITATOR

Ms. Rebeca F. Andong,
USAID Oceans

PANELISTS

- Mr. Marvin Arreo, PhilCinMic/SFFAI
- Mr. Diony Seromines, ATH
- Mr. Zaldy Perez, BFAR CO
- Mr. Glenn Padro, BFAR 12
- Mr. Eugene Casas, BFAR 12

On the aspect of fisheries management, the lessons learned were that fisheries management can be backed by eCDT systems, while eCDT data can inform fisheries management. Partnerships, on the other hand, were most successful when there were multiple parties involved and there were periodic reviews specially to optimize processes and identify new opportunities. Finally, human welfare and gender is a key consideration for traceability and eCDT can be a valuable tool here that enable human welfare-related functions.

Mr. Zaldy Perez presented the BFAR eCDTS, taking the audience through the definition of major terms, and the background to the development of the eCDTS. He then traced each step of the process involved in obtaining a catch certificate.

After the three presentations, Ms. Rebeca Andong convened the first panel, which consisted of USAID Oceans partners to discuss their experiences in the course of the project. The discussion began with the panelists initial sharing of their experiences and what they learned from the implementation of eCDTS in the General Santos learning site.

Coordination, consultation and communication is important. Mr. Marvin Arreo stressed that coordination with partners is important. Especially for the fishers and other stakeholders who are not used to this level of engagement with government, it is necessary to ensure that all activities are coordinated well. He also said that the government, e.g. top management, should listen to its people who are in the field. BFAR should listen to its people, he said. Mr. Diony Seromines agreed saying that constant consultation with the sector is necessary. He said, “to ensure that all members should be included, and all voices should be heard.” Mr. Casas related the group’s experience regarding the consultations that had to be done, calling them “*madugo*” (Tagalog, bloody) but that all stakeholders were involved. He also mentioned that in the integration of existing systems, the requirement of the local transport permit can strengthen inter-LGU coordination. Mr. Zaldy Perez of BFAR Central Office also pointed out the importance of series of consultation in implementing the system. Finally, all the BFAR representatives agree that IEC is necessary for eCDTS implementation.

“The principle of implementation of the system, that before we deploy and implement the system- there will be series of consultations.”- Mr. Zaldy Perez of BFAR CO

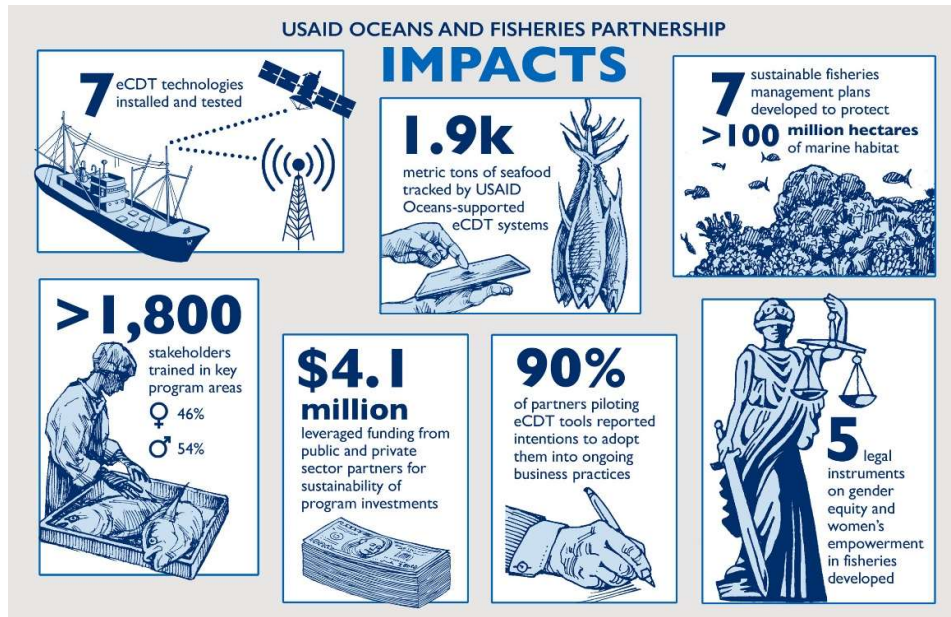


Figure 3. USAID Oceans Program Impacts

Fishers need to understand the benefits of eCDT. For his part, Mr. Diony Seromines said that often, fishers view the platform as additional cost and there is immediately a concern about the subscription fee to the service. He said that although this is the case for small fishers, it is important to help them understand the benefits of doing eCDT. He says that the fishers are willing to invest when they see/understand how the service benefits them. In relation to the subscription, Mr. Perez said that the service will be free since it is BFAR that will be managing and coordinating the use of the system.

eCDT enhances coordination of actions. Mr. Padro related that what attracted him to the project was the possibility of linking all of BFAR's regulatory measures and units, especially connected to capture fisheries. He said that the lack of coordination among the various units of the Bureau, allowed IUU fish to be marketed, even when his unit had already standing criminal and administrative cases against these fishers. So, with the eCDT he said, all of us will be connected and our work aligned so that we can stop IUU fishing. The system allows us to verify and trace whether the fish is really caught legally. Another positive thing he noted was the technologies facilitate the collection of data - "Imagine the data we would have after a year of using these technologies?" he asked. The potential for analysis and decision making becomes greater. Where before it would take a week to process data for persons who requests, this system makes it possible to reduce the waiting time to minutes.

eCDT needs policy support. The BFAR panelists (Mr. Perez, Mr. Padro and Mr. Casas) remarked that policy support of eCDT is crucial, especially referring to BAC 251. The public consultations raised issues related to eCDT which helped them realize that the BAC 251 in its present version was not enough to cover all the issues coming out. Panelists also said that at the level of the LGUs, it would be necessary to come out with policies that support the implementation of eCDT.

The eCDT system was built on existing systems. They also pointed to the fact that the present eCDT built on already existing systems within the Bureau. They appreciated that the project was willing to consider this and not push for the development of an entirely new system from scratch.

Ms. Andong asked the panel if they had any further comments to leave before discussion closed. Mr. Arreo stressed the need for a faster/better internet connection especially at the port area. He says that it's good that they can use the FAME technology without an internet connection. But once the boats get into the fishport and link up to the eCDTS, they would need a strong internet. He also pointed to the need for coordination between and among fishers in the various regions. In the future he said, "I hope all of us



(from left) Mr. Marvin Arreo (SFFAI), Mr. Zaldy Perez (BFAR CO), Mr. Glenn Padro (BFAR 12), Mr. Eugene Casas (BFAR 12) and Mr. Diony Seromines (ATH). (Photo credit: DP Quimque/USAID Fish Right)

can be interconnected." Ms. Andong validated the internet problem stated by Mr. Arreo, having witnessed firsthand during the piloting how the slow connection prevented the fisher from uploading hundreds of entries that he has painstakingly inputted into the system. Mr. Perez reminded the body that the FIMC, his unit, has done its part in the development of the eCDT, and he passes the responsibility to the Fisheries Inspection and Quarantine Division (FIQD) of the Bureau and the users to push the technology and its use even further. He said the FIQD should propose a protocol for rolling out the system and make sure to coordinate with all stakeholders and potential users. Once the system has been rolled out, it is now the users' responsibility to use the system and to provide feedback to BFAR about their user experience.

Mr. Glenn Padro of BFAR 12 highlighted the important role of the LGUs in ensuring that the system works and that catches are indeed documented and traceable. The LGUs are an important component in the system especially because they control the licensing and registration of municipal fishers and boats. He also said that the NGOs can help in this aspect of the whole traceability chain. In connection to this discussion, Mr. David mentioned that the municipal guidelines for eCDT have been drafted and are awaiting next reading at the succeeding NFARMC Meeting.

"We should not forget that the eCDT is not just between BFAR and the fishers/fishing operators and the fishing processors/manufacturers. The LGU is an important component." - **Mr. Glenn Padro**- BFAR 12

Mr. Seromines emphasized the need to maintain continuous communication with the small-scale fishers. We need to convince them all of the importance and value of eCDT so that they now volunteer to participate. And he proposes for BFAR, and the LGUs to convene all the municipal fishers so that the eCDT can be explained. This should be done prior to the roll-out of the

technology and it is one way he says that the use of the technology can “snowball” among the small fisherfolk.

FACILITATOR

Mr. Len Garces, USAID
Oceans

PANELISTS

- Mr. David David,
WWF
- Mr. Dean Apistar,
RARE
- Mr. Arcelio
Fetizanan, Jr., FAME
- Dr. Val Randolph
Madrid, MSUNFSTDI

Dr. Lilian Garcia, Interim Executive Director of NFRDI, raised two points in response to the panel. The first she noted was that this eCDT initiative was aligned to what was being required of us under SDG 14. In fact, we might be delayed already because the target was zero IUU fishing in 2020. She said however, that the whole process is a journey and she was elated to see the participation of various groups/stakeholders in this workshop. A second point she raised is the possibility of linking eCDT implementation to the LGU’s application for a Seal of Good Governance. She asked if implementing eCDTS and reducing IUU fishing could be included among the indicators. If we include these indicators among the indicators required to get a Seal of Good Governance, then we can facilitate adoption of the system among LGUs. They will voluntarily sign up to be included she opined.

Mr. Joey de la Cruz, from the Provincial Agriculturist Office of the province of Capiz asked about how sure we are that the system is perfect, even as he noted from the earlier presentations that there are still some glitches to be addressed. He said that their LGU is interested to use the system but he needed assurance that the system would really work. Mr. Perez replied that all systems would eventually have glitches as more and more users go online. But he said that the system had gone through the process of development and deployment with multiple consultations with various stakeholders. Each time, the system would be adjusted according to the comments of the consultation workshops. The system has not been rolled out yet and BFAR will ensure the utility of the system once roll out is done. In addition, Mr. Padro said that there is no such thing as a perfect system. The aim he says is an acceptable system. For implementation in the Visayan Sea, several adjustments need to be made regarding the species and the gear in the region. Hence, there is still some work to be done on these adjustments here. In this light, he recommends that BFAR and the developers should really work together to be able to catch the kinks early and prior to roll out.

The second set of presentations in the afternoon, consisted of local partners from WWF, RARE-Philippines, FAME and MSUNFSTDI. The first two are working to apply the learning from USAID Oceans sites into other sites in the Philippines while the latter two are local technology partners working with the USAID Oceans to develop and fine-tune technology for eCDT and analytics. The Worldwide Fund for Nature (WWF) and RARE - Philippines, were represented respectively by Mr. David N. David and Mr. Dean Apistar, Mr. Arcelio Fetizanan, Jr. represented FAME, and Dr. Val Randolph Madrid represented the MSUNFSTDI.

Mr. David discussed the replication of the USAID Oceans eCDT system using FAME technology which enabled them to do catch reporting with tuna handliners in Mindoro and in Bicol provinces in support to MSC certification. Mr. Apistar, on the other hand, described the efforts of RARE to promote a catch documentation app called “Our Fish” for the use of smallscale fishers in Antique, Siargao, Bicol and Cebu. This app includes capacity for data analytics and a dashboard for CPUE, catch composition and catch trends (volume).

Mr. Arcelio Fetizanan, Jr. described the CDT technology more popularly called in the program as “FAME Technology” to track or monitor boat location for municipal fisheries. Based on radio frequencies, it has capability for catch documentation at point of catch. Aside from the work done at the General Santos learning site, he also shared their experience with Jam Seafoods in Palawan and with the work of WWF mentioned earlier.

Dr. Val Madrid shared that the IDS mobile app was the result of a USAID Oceans grant on the use of eCDT data for fisheries management. He described the features of the app showing its data analytics and dashboard capabilities. He showed that with the app, users can visualize the location of fishing by gear, the volume and trends of catch, and catch species composition.

The resulting discussion revolved around five key points: (1) data access and protocols, (2) data privacy, (3) role of provincial LGUs, (4) scalability of technology, and (5) investments and funding. Much was said about data integrity, data quality and whether these can really be accessed by users. Comments from the audience included that the entire data set should not be available to everybody and that those who can access should not have any ability to “manipulate” the data. In this light, everybody agreed that data access protocols should be developed early and implemented as early as possible.

On the second point above, the main issue was that location of fishing grounds is an intensely guarded “secret” by fishers. They would rather not share the exact locations of their fishing grounds, especially to other fishers. It was agreed that the different users will have different levels of access and exact lat-long coordinates should not be accessible to everybody except to BFAR. In connection, the option for non-BFAR users may be to institute a coarse grid system if there is a need to visualize the fishers’ locations.

The catch being documented in the Visayan Sea is predominantly from municipal waters. There is understanding that the municipal LGUs will lead the effort here. However, there is opportunity for provincial LGUs to participate and play a role perhaps to coordinate between LGUs and link them to BFAR.

Another key point raised is on the scalability of the CDT technology. There was much discussion on whether the technologies that were developed for tuna and the three fishing methods (hand line, purse seine and ringnet) could be adapted to the multi-species and multi-gear fisheries in the Visayan Sea. Several suggestions were floated about whether batch tagging is feasible and whether tracking the movement of active gear is possible.



Partners sharing their experiences. From left: Mr. David David (WWF), Mr. Dean Apistar (RARE - Philippines), Mr. Arcelio Fetizanan, Jr. (FAME) and Dr. Val Randolph Madrid (MSUNFSTDI) (Photo credits: DP Quimque/USAID Fish Right)

Finally, there was clear agreement that a robust CDT system will benefit from additional investment and/or funding from either of government or private sector or from both in partnership.

As a prelude to the technology marketplace, the last panel discussion was held, highlighting technology providers from Indonesia and from ThisFish of Canada. Mr. Farid Maruf led the panel

FACILITATOR

Mr. Farid Maruf, USAID
Oceans

PANELISTS

- Mr. Fariz Acron, P.T.
Sisfo Indonesia
- Mr. Teddy Harmoko,
Nutrindo Fresfood
Internasional
- Mr. Eric Enno Tamm,
ThisFish, Inc.

discussion by introducing the panelists (see box at left). The speakers introduced their respective eCDT technologies, especially highlighting the processes involved and how these are integrated across the traceability chain.

Mr. Teddy Harmoko introduced his company and described their old monitoring system before introducing the current system, Pointrek. Their initial monitoring system consisted of three steps: (1) radio communication between fishing boat and home base to get details of catch, (2) manual recording of information, and (3) sharing of recorded information to co-workers and decision makers via the application WhatsApp. Through their partnership with USAID Oceans, they transitioned to Pointrek which allowed all information to be captured online. Recording started with the Fishing Trip where all the fisher had

to do was choose from options on the dashboard. The same was true for the fish catch documentation.

Once all the data was captured, the visualizations could be accessed via the Pointrek web. Here can be seen real time vessel location, vessel status, vessel track replay, and estimated time of ship arrival. The electronic catch documentation can be viewed and can be transmitted immediately to the competent authority to be converted into an e-logbook format.

Additional features include two ways to communicate and an SOS notifier. The communication can be done via an interface on the ship's device and an interface on the web, while the SOS notifier has a "panic button" which fishers can use to notify home base in an emergency.

Mr. Harmoko said that other features can be added, like sensors for real time monitoring of fish hold temperature, and fuel consumption. As well, the system can be connected to a CCTV. Over all, the system has benefited them in many ways. They can plan operations for purchase of raw materials, there is less paperwork but reporting accuracy has improved, they know the status of all ships at any time, communication is better even during stormy weather, communication is in real time, and they are more mobile.

Mr. Maruf introduced Trafiz, a system for traceability at landing. This is especially valuable to tracking small scale fishers who land anywhere. Their catches are often not recorded because most recorders are in the fish port. Trafiz according to Mr. Farid is ideal for the small-scale fishers who have limited technology and budgets. These fishers are concentrated on using handlines and traditional boats. Often, their first line of contact is the local fish broker or supplier. He/she is usually the first person to record the catch of the small fisherman - a paper-pen process.

Trafiz seamlessly converts daily operations from manual to digital with the advantage of electronic recording of catch data. The broker/supplier enters trip/catch information (based on KDEs), then fish/catch information. The broker/supplier can also keep track of loan information for each fisherman, thus facilitating the tracking of payments. When the broker sells the fish to a buyer or processor, a QR code can be printed to keep the information



*Technology panel consisting of (from left) Mr. Fariz Acron (Pointrek), Mr. Teddy Harmoko (Nutrindo) and Mr. Eric Enno Tamm (Tally)
(Photo credit: DP Quimque/USAID Fish Right)*

on the catch as it moves. Because all the sales information is recorded, the users have a record of profit/loss and each fisherman can see his performance as a summary. Other features include the capacity to be used offline, as well as, to change the language being used. Current and future case scenarios include use by government, organizations, NGOs and others to balance biomass within the fishing grounds and thus regulate access if necessary; locate and identify fishing grounds; determine credit scores to manage financial access; trace the history of fishing in certain areas, and many more.

Mr. Tamm introduced the technology Tally, an eCDT technology for seafood processors. The technology reduces the amount of paperwork (and of paper) involved as the fish moves from fisherman to processors, thus opening the bottleneck that happens when the multitude of fishing boats bring their catch to the few fish processors. The technology also addresses the innate uniqueness of the fish processing where one fish becomes several products. Much unlike regular manufacturing where several input components become one product.

Tally has four core modules: digitize, monitor, report, and integrate. The first module abolishes paperwork, strengthens data integrity and reduces data errors. The second module monitors real-time data, allows personnel to take corrective action and improves processes. The third module speeds up the reporting, analyzes trends and verifies reports especially for the auditors. The fourth module automates data collections, connects the hardware and syncs ERP and MES.

Technology Market Place

Participants were asked to reserve their questions from the panel discussion so that they could pose them to the tech partners during the technology marketplace. Five tables were set up at which each of the company/organizations sat. The audience was distributed among the five stations. At each station, they were given 15 minutes to ask questions, clarify certain issues, obtain information as they saw fit. After 15 minutes,



Technology Market Place. (Photo credits: DM Quimque/USAID Fish Right)

the audience was then asked to move to another table for the same purpose. The discussion continued until all the audience groups had completed the circuit.



Technology Market Place. (Photo credits: DM Quimque/USAID Fish Right)

Way Forward

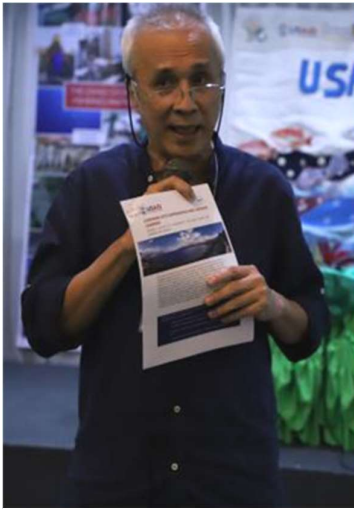
Dr. Lily Ann Lando, lead facilitator for Day 1, summed up the day and the lessons shared by partners (Figure 3). An often-repeated good practice throughout the lesson sharing was constant communication. The fishers especially felt that their participation and success of the program depended on a consistency and constancy of reaching out, obtaining feedback and cycling back to ensure understanding. Moreover, the participants cited that listening to stakeholders will ensure that the capacity/capability of the eCDTS technologies are consistent with what potential users need and the processes involved in their work.



Figure 31. Main themes from lessons learned shared by partners

In relation to the technology, the developers mentioned that software is only as good as the hardware and the technical capacity that is available. Thus, it is always ideal to start with what already exists. This was pointed out as a valuable lesson for both learning sites, General Santos and Bitung. It is thus advantageous for developers to find out what systems and technical capacity, if any, are in place and to start building up from there.

Participants also highlighted that the most successful partnerships were those which engaged multiple partners or collaborators. Each organization involved always brings something unique to the relationship which builds synergies that allow far reaching accomplishment than would a partnership between just two parties.



Mr. Nygiel Armada preparing the audience for Day 2 (Photo credits: DM Quimque/USAID Fish Right)

As the technology is developed and used however, room for improvement should always be present. The participants said that no technology is ever going to be perfect but that we should always seek for it to be useful, easy to use and responsive to the needs of users at the time.

Finally, as the technologies are developed and the partnerships are built and evolve, there will be successes along the way. Many participants said that these positive outputs or outcomes should be shared to the greater community - not only to inform them but to inspire ideas that may inform future work.

Dr. Nygiel Armada, COP of USAID Fish Right, closed the day's discussions as he briefed the participants on the field trip on Day 2. He was excited about the recent developments in computer language that can now allow interoperability among systems.

He

reminded everyone to think about this and how the eCDT system developed for tuna could be used for other species, especially the small pelagics in the Visayas. He also said that the aspect of governance is important especially looking at how the data analytics can enhance or facilitate fisheries management in this area.

".... we have to scale this up. But in the case of working from tuna to other species, maybe we need to scale down a bit to fit into that particular species. Then after that, that's when we can say that's okay"- Dr. Nygiel Armada- USAID Fish Right Chief of Party

4.4 DAY 2: FIELD DEMONSTRATION AND FACILITATED DISCUSSION

The participants witnessed a demonstration of the FAME technology at the Iloilo Fish Port Complex (IFPC). Several, including Mr. Nygiel Armada (Fish Right Chief of Party), and Ms. Rebecca Guieb (USAID Philippines) boarded the fishing boat that was tracked as it sailed around the bay.



Demonstration of the FAME transponder technology at the Iloilo Fish Port Complex. Top row: Field demonstration simulating crab catch. Bottom row: Demonstration of the technology at the BFAR VI Conference Room (Photo credits: DP Quimque: USAID Fish Right)

The rest of the participants stayed at the BFAR VI Conference Room, where Mr. Arcelio Fetizanan, Jr. showed them how the FAME technology (transponder) worked. All participants then convened at the conference room for the open forum on the technology and then afterward, the facilitated discussion. Dr. Lily Ann Lando (USAID Oceans) facilitated the Open Forum on the FAME technology while Mr. Patrick Co (USAID Fish Right) led the facilitated discussion.

FAME DEMONSTRATION. The questions that participants asked were grouped into themes (Table 6). The most common question was about **COST**. Participants wanted to know especially whether the small-scale fishers and the LGUs would be able to afford the technology, whether FAME is willing to consider other mechanisms of payment, and what hardware/software and services are included in the initial payment. Mr. Fetizanan said that the subscription cost is P800/month with an initial payout of P3200 that is deductible towards the end of the subscription period. This payment covers a transponder for the fishing boat and as many NFC cards as needed by the fisher (based on his average catch).

The next most frequently asked questions were about the conditions of the subscription. The subscription pays for the use of FAME's platform. Also, the subscription lockdown is for three years, within which FAME maintains ownership of the transponder. While under subscription, damaged units will be replaced but after the scheme subscription period, the user/owner will have to pay for replacement. Firm ware will be continuously upgraded.

For hardware and/or software, participants asked whether the transponder was necessary to tracking the boats and whether the software was uploaded to all boats. The response was in the

positive. Mr. Fetizanan also said that the gateways and related hardware come with the cost/initial subscription, and that the transponder unit can be powered by solar energy.

Table I4. Summary of the Q&A session on the demonstration of the FAME technology

THEME	SUMMARY OF RESPONSES
Cost of the Technology/ Subscription	<p>The cost of subscription is P800 monthly with an initial P3200 cash out, which is deductible from the subscription toward the end of the 3-year lock-in period. This cost covers the transponder, the gateway, the card reader and as many NFC cards as needed by the fisher (based on the average catch).</p> <p>FAME is willing to discuss other options for payment depending on the needs of either the LGUs or the fishers. This price is based also on what is required by the manufacturer, so that the production of more units will most likely drive the price down.</p>
Conditions of Subscription	<p>The subscription covers the use of the FAME platform. During the 3-year lock-in period, FAME will still own the transponder. During this time as well, the unit will be under warranty and any damaged unit will be replaced. However, after the lock in period, the user/owner will now pay for any damage or repairs to the unit. Firmware will be continuously updated.</p>
Hardware	<p>The transponder is needed to monitor the fishing boats. Land-based hardware (e.g. gateways and readers) are included in the package. The transponder can be solar-powered. The transponder is initially designed to produce a sound when the NFC card is tapped against it. However, because the sound may be drowned out by the sound of the boat engine, the next design incorporated a LED light indicator.</p>
Software	<p>All boats, i.e. transponders, have the software already and continuous upgrading will be done for the software which will be accessible to users during the lock-in period. FAME is willing to discuss arrangements regarding the software.</p>
Lessons Learned from Oceans Pilot	<p>The lessons learned during the Oceans pilot revolve mostly around hardware:</p> <ol style="list-style-type: none"> 1. Need to improve Battery life and address redundancy of power 2. The wires should be placed inside the transponder to prevent accidental disconnection or dropping of the unit when wires are entangled. 3. The range of the unit is 50 km but the range does increase as the number of transponders and gateways increase.
Application of the Technology	<p>Yes the transponder can be used initially to help validate grid maps and eventually to make grid mapping faster and more accurate. We can concentrate on specific areas like the Visayan Sea with the use of more gateways and more transponders. The technology can show the fishing activity location, especially start to finish, of mobile gears.</p>
Performance at this Pilot	<p>We have shown that the transponder can be used by fishers to tag their catches and as well, to track movement and location. We have tagged some fish but have not yet reached those numbers (10,000).</p>

Mr. Fetizanan mentioned in his presentation on Day I that they had piloted the transponders with Oceana. Thus, he was asked what the lessons were learned during this piloting. The lessons he shared were mostly about the physical design of the transponder: battery life and power redundancy, wires, and the range of the device.

Representatives from BFAR 6 NSAP asked whether the technology can be used to help them in validating their grid mapping because this was a time-consuming task for them, and much of the validation was not accurate because it was based on landmarks. Mr. Fetizanan said that it is possible to concentrate/focus on a single area but that there must be more gateways and transponders in use. A BFAR representative reminded that the active fishing gear do not just stay in one area during a catch event. They move as they drop their nets, so this must be considered when recording the boat movement.

Mr. Fetizanan then made a rundown of the process that takes place after the NFC card is tapped onto the transponder and traced the steps to the final point when the tuna/product goes to the export market. He showed how the data upon catch is captured by the card and then how it moves up the chain from landing through to processing. He also showed how FAME technology can be expanded to cover the post-harvest processing of local companies and integrated with other technologies like that of Indonesia. After the clarifications from the audience, the discussion was closed, and then salient points summarized by Dr. Lily Ann Lando. The participants were next led into the facilitated discussion by Mr. Patrick Co of USAID Fish Right.

FACILITATED DISCUSSION. Mr. Co thanked Mr. Fetizanan for the demonstration and asked the body now for their insights, comments, suggestions especially about the FAME technology and how it can be used within the context of the Visayas fisheries, or for fisheries as a whole. Discussion and responses are presented here not in chronological order (as they came up during the discussion) but clustered into themes so that they can be appreciated within context.

Prior to the discussions however, Dr. Nygiel Armada, COP of USAID Fish Right, and Ms. Rebecca Guieb, USAID Philippines, set the context for the facilitated discussion, and the work that Fish Right intended to do within the remaining three years of its project life.

Dr. Armada described the difference between tuna fisheries in GenSan and the fisheries in the Visayan Sea, citing the challenges of tagging multi-species catch or much smaller species. However, he stressed that it is not about the tagging itself, but the use of the information gained from the tagging to ensure the sustainability of fisheries resources. He furthered that several elements must be put in place like catch limits and deciding first on scaling down (from tuna) before scaling out to other areas. Referring to the technologies from Indonesia, he said that our best option is not to adopt the whole system as implemented in that country but instead to look at certain elements of the system and incorporate them into existing systems in the Philippines.

The focus he said is what else can be done to improve the technology for utility in the future. This could mean for other species, other uses and other areas like the Visayan Sea, South Negros and Calamianes within the 3 and a half years that remain for the project. Also, there is the question of interoperability – “how can this system and existing systems “talk” to each other and how these can feed into newer systems so that we can have all these data in our hands”.

Finally, there’s also the support to BFAR even for data collection. They’re thinking about automating it and by automating it, “we might be needing some elements of the technology that’s now on the table. So, we are here to think about these and how we can improve on the system, adopt certain elements, and/or push the use of the technology to improve our fisheries in these areas”.

Ms. Guieb reminded everyone that USAID activities catalyze process like this but ultimately it will be the Philippine government, the private sector and the communities, the main stakeholders, who will pursue this strategically and move this forward. She said that while the convergence of USAID Oceans and Fish Right in hosting this workshop was enriching, it may be a little bit premature to ask “Ano yung taya?” because there are many other areas to sort out. She mentioned that there are technology-related issues as pointed out in the discussion on Day 1. There are also governance-related issues that still need to be discussed like the Data Privacy Act. She said that she will subsequently do small group discussions to understand how best USAID Philippines can support and continue to catalyze the process.

“USAID activities would catalyze process like this. But ultimately it will be the Philippine govt, the private sector and the communities who are the main stakeholders who will pursue this strategically.” - Ms. Rebecca Guieb, USAID Philippines

Figure 4 shows the potential uses of the FAME technology as shared by the workshop participants and the perceived benefits that can be derived from using the technology. The first and most commonly mentioned use is for collection and validation of municipal catch **data**. Most of those who spoke mentioned the huge investment in time that they spent in collecting catch data, most especially for NSAP. They said that data collection was all the NSAP staff did.

With the FAME technology, **time** for data collection will be greatly reduced and the staff could instead spend time in processing and then analyzing the data. Concomitantly, the LGU can now provide data (e.g. catch records) to clients who request this information, instead of asking BFAR to provide the data to them. Finally, the technology can help in **catch documentation**. The LGUs and the region itself will benefit if all catches originating from here will be attributed correctly. Fishers/LGUs complain that when their catches are transported to market, these are often mislabeled as to their actual origin. For example, tuna and sardines catches from Northern Samar are recorded as having been caught in General Santos and Region V, respectively.

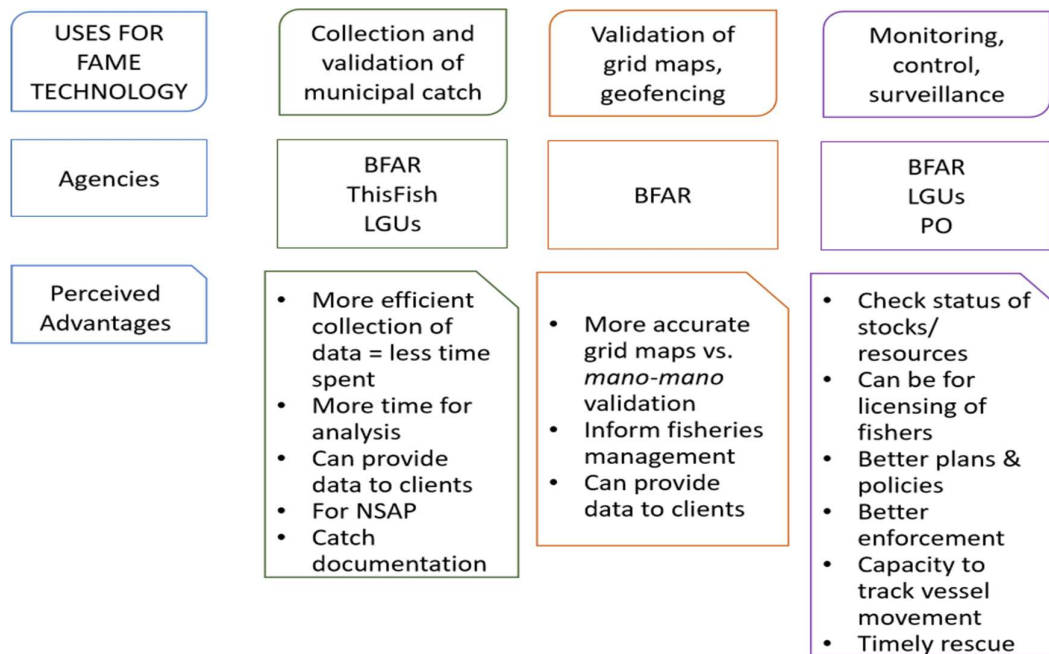


Figure 42. The potential uses of the FAME technology in the Visayan Sea and advantages perceived by prospective users

The participants shared some **issues** that they foresee arising from the use of the technology. Most of the speakers said that the technology should be demonstrated or piloted with the LGUs. However, the speakers, especially from the LGU, mentioned again the **cost** of the technology. They mentioned that the technology might be beyond the capacity of the fishers and LGUs to pay for. And we cannot force them to use the technology despite its apparent advantages. In this respect, they hoped that FAME would develop some other ways for buyers to afford the technology package.

They also mentioned that perhaps there would be agencies (NGOs, government) that would subsidize the technology so that the fishers and LGUs can access it and use it for the purposes mentioned above. However, a speaker mentioned that there is always the tendency of not caring for things that we did not work for. Or as mentioned by one speaker, given that the device can be used for tracking boats to allow locating and rescuing during disasters, maybe the procurement could be charged to DRRM funds.

In relation to the cost, the speakers mentioned that the LGUs are often saddled with the onerous process of government **procurement**. Many requests for materials are delayed and often not bought in time for their use. So that if they were to use the technology immediately, then some other agencies would most probably have to acquire these equipment and hand them out to the LGUs instead. In relation, they say that they lack the technical capacity to use the technology so there is a need for additional personnel to do this.

Another factor related to cost is related to the government budget cycle in which all LGUS, and in fact, all government agencies have their budgets fixed already in Annual Investment Plans (AIP) that are effective up to 2022. While some agencies may have funds for unplanned activities, most don't, and this may constrain them from participating in any current initiative that will require them to shell out counterpart funds.

Aside from the cost mentioned during the demonstration, **applicability** to the conditions of fishery here may be a problem. Although they saw many potential uses and advantages to the uses, they cited that the technology was initially developed for tuna and the General Santos waters or in FMA 3 - a situation quite different from the fisheries in the Visayan Sea. The speakers reminded the body that the fisheries here, especially in FMA 11 are multi-species, and multi-gear and the species are much smaller than tuna like blue swimming crabs, round scad, and the like. If the technology is to be adopted here, some adjustments will have to be made to accommodate these unique characteristics of the area.

According to the participants, several next steps must be taken regarding the use of the FAME technology in the region. The first one they suggest is the formulation of a national **law** to require all fishermen to use the gadgets, and that those who have no gadget cannot fish. They also said that the rapid **adoption** of the technology should be started with the local governments and we should not rely too much on BFAR to do everything.

Mr. Noel Lucero gave the side of the commercial fishers in the area saying that having a transponder on every boat might be too much regulation. He reiterated the differences between tuna fisheries in GenSan and the multi-species fisheries in the Visayan Sea, mentioning again those differences already mentioned by BFAR and LGU representatives. He added that unlike in GenSan and the high seas, fisheries here is between small islands. In relation to this, he said that boats in a fleet are always connected to their home base and will easily be found when they run aground. In fact, he said, the government asks them to help in rescuing other boats because in fact, they are connected to their own. So the reported utility of the FAME technology for rescue is something he says they don't need because they are thoroughly connected with their boat fleet and they can find them easily.

He also said that they are all registered and licensed to fish and those that violate the fishing law are those who are not licensed. Thus, he said they don't need the FAME technology to keep them within the law because they are licensed, and he said that those who break the law will not want to put transponders on their boats. Further he said, of course those who do have transponders will not break the law.

So instead of requiring boats to carry transponders, he said that the government instead must correct the limits for municipal coverage, especially since the geography of small islands creates overlaps in what constitutes municipal waters. He said that unlike in GenSan where "you have big fishing grounds", the fishing grounds here are already extremely limited and highly regulated. Additionally, he mentioned that this new technology means additional expenses for them and that additional expenses for businessmen is always a problem. Because the local catch was meant for the local market, he did not see the reason why they would be required to adhere to a requirement (e.g., traceability) by consumers (e.g., EU, USA, Japan) who are not their customers.

From the side of USAID Oceans, Mr. Len Garces spoke on behalf of COP John Parks especially on remaining activities as the project closes. Having originally engaged FAME, it is now piloting the technology through partnership with WWF in Mindoro and Lagonoy. Furthermore, Oceans is currently working with MSUNFSTDI to pull data from eCDT and use this for analytics like CPUE, catch composition, and to visualize fishing areas. Mr. Garces said that they are desirous to exchange ideas on how specifically to overlay CDT data with NSAP data toward the end of data validation.

Toward the end of the Oceans project, lessons learned will be shared, especially about results of the pilot in Mindoro and Lagonoy, and about how a Regional FishMon Center looks like - this latter based on the work done with BFAR 12. Finally, in relation to all the work that has been done, all

software and coding will be turned over to BFAR, as well, work is being done to have the FAME technology interoperable with the BFAR eCDTS.

Additionally, for USAID Oceans, Ms. Rebecca Andong, Country Coordinator, shared her experiences from the Learning Site (i.e., General Santos) as she worked with the LGUs. She related that while the LGUs were immediately enthusiastic about participating in the piloting, some were more engaged than the others. Those which were more engaged, immediately requested a presentation of the technology to their respective municipal staff, who were then tasked to ensure that communication and coordination between the LGU and Oceans was always open and active.

According to Ms. Andong, the LGUs identified three important uses for the FAME technology: (1) fisheries monitoring and vessel tracking, (2) disaster risk reduction and management (DRRM), and (3) safety at sea. The first was a given since it was the main reason that the technology was introduced to them. But they also said that the technology could be useful in DRRM, allowing tracking boats during bad weather and enabling the location and eventual rescue should there be an emergency. Finally, the users of the technology said that the transponder gives them some sort of security, especially in cases of piracy for instance.

She shared further that many of the LGUs have put the procurement of transponders in their annual budget. While the technology may be a bit expensive for them, they said they will do it by installment, buying 10-20 units every year until they can provide for their fisherfolk. Two municipalities in fact said that they will use part of their cash prize from winning in the MMK to buy transponders for their fishers.

She reminded everyone that there were many funding windows open for fisheries and this kind of work. It will only take the initiative from the LGUs, and the community in partnership with BFAR and other government agencies to develop proposals for submission to these potential funding agencies.

In winding down the discussion, Mr. Co asked Dr. Ben Malayang of Silliman University to share his thoughts. Dr. Malayang mentioned four things for everyone to consider in relation to the use of the FAME technology: (1) Institute market denial, (2) employ systems design principles, (3) link with DICT, and track the state of the critical ecosystems.

By extending the use of the technology to the market, one pressure or disincentive against IUU fishing would be **market denial**. Since the technology could be used to label correctly and legally caught fish, the lack of that label should exclude fish and fish products from entering the market. Beyond the farm gate price, he says that the market door can also be controlled so that only those properly labeled products will be allowed to enter the market door and even to travel the hallway up to export.

In seeking to develop these traceability systems, he reminded everyone to employ systems design and the three principles related to it. First off, the system must be useful, and this is the basis for pushing the technology forward. Secondly, what are its cultural anchors? We must see whether the technology is appropriate and fits into the culture of the community. Finally, the system must be robust. The demonstration we saw showed that there are still some glitches. But that only means, according to Dr. Malayang, that we should continue to fix some things and not give up.

Because this is ICT, the DICT must be involved. First, because it is working on several projects that will impact this initiative positively, like the broadband project and the ICT backbone, and second, because it is the department's mandate.

Finally, Dr. Malayang said that application of the system could be extended into tracking the state of the critical ecosystems that produce the fish that is tracked. He said that the purpose of tracking the fish is easily understood. However, there will be no fish without the ecosystem to which the fish are dependent. How this can be done using the technology is something worth discussing, he said.

These comments brought the discussion to a close. Mr. Len Garces and Ms. Rebeca Andong then awarded a Plaque of Recognition to USAID Fish Right for its close partnership with USAID Oceans and for co-hosting the Iloilo Technology Showcase. The plaque was received by COP Dr. Nygiel Armada.

Mr. Ernie of BFAR then gave closing remarks, thanking everyone for their participation, expressing hope that all learned something new, and built connections with other stakeholders present during the event.

ANNEX I: ATTENDEES

Table 15: Participants at Partner Recognition Workshop, 05 February 2020

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Govt	CSO/ NGO	Industry/ Private
1	Ms.	Maria Abegail	Albaladejo	Chief, Planning Division	BFAR Central Office		x	x		
2	Ms.	Jermaine	Lacsamana	Planning Officer II	BFAR Central Office		x	x		
3	Mr.	Jan	Sevilla	Planning Officer II	BFAR Central Office	x		x		
4	Ms.	Maria Joy	Mabangue	Computer Maintenance Staff	BFAR Central Office		x	x		
5	Ms.	Ariane Chary	Hablanida	Admin Assistant VI	BFAR Central Office		x	x		
6	Ms.	Drusila	Bayate	Assistant Director	BFAR Central Office		x	x		
7	Ms.	Crisel	Marcelo	Admin Staff	BFAR Central Office		x	x		
8	Mr.	Francisco	Torres	Senior Research Specialist	Nat'l Fisheries Research Dev't Institute	x		x		
9	Ms.	Xeene	Atienza	Field Writer	BFAR Central Office		x	x		
10	Ms.	Kaye	Alegado	Information Officer III	BFAR Central Office		x	x		
11	Dir.	Usop Jr.	Pendaliday	Regional Director	BFAR Region XII	x		x		
12	Mr.	Glenn	Padro	Senior Fishing Regulation Officer	BFAR Region XII	x		x		
13	Mr.	Edison	Pesario	Aquaculturist I	BFAR Region XII	x		x		
14	Ms.	Mildred	Buazon	Chief Administrative Officer	BFAR Central Office		x	x		
15	Ms.	Amor	Diaz	Division Chief/Market Specialist V	BFAR Central Office		x	x		
16	Mr.	Rafael	Ramiscal	Chief Aquaculturist	BFAR Central Office	x		x		
17	Mr.	Zaldy	Perez	Chief Administrative Officer	BFAR Central Office	x		x		
18	Mr.	Nazario	Briguera	Market Specialist IV	BFAR Central Office	x		x		
19	Mr.	Peter Erick	Cadapan	Senior Aquaculturist	BFAR Central Office	x		x		
20	Mr.	Joseph	Rayos	Senior Aquaculturist	BFAR Central Office	x		x		
21	Atty.	Michael	Andayog	Attorney VI	BFAR Central Office	x		x		

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Govt	CSO/ NGO	Industry/ Private
22	Mr.	Gilbert	Edjan	Information Staff	BFAR Central Office	x		x		
23	Mr.	Zoilo	Aquino	Information Staff	BFAR Central Office	x		x		
24	Ms.	Annaliza	Vitug	Head, Adjudication Committee	BFAR Central Office		x	x		
25	Mr.	Francisco	Vejerano	Computer Programmer	BFAR Central Office	x		x		
26	Mr.	Rowel	Aquino	Computer Programmer	BFAR Central Office	x		x		
27	Mr.	Jomarz Arzy	Yutoc	Computer Programmer	BFAR Central Office	x		x		
28	Ms.	Alaine	Rivera	Technical Writer	BFAR Central Office		x	x		
29	Ms.	Jelyn	Ramos	Computer Programmer	BFAR Central Office		x	x		
30	Mr.	John Gil	Cayabyab	Computer Programmer	BFAR Central Office	x		x		
31	Dr.	Sabdullah	Abubacar	Regional Executive Director	DENR Region 12	x		x		
32	Mr.	Eduardo	Gongona	National Director	BFAR Central Office	x		x		
33	Mr.	Marlito	Guidote	Director	OCEANA Philippines	x			x	
34	Atty.	Benjamin	Tabios	Attorney V	BFAR Central Office	x		x		
35	Ms.	Cristina	Velez-Srinivasan	COR	USAID RDMA	x		x		
36	Mr.	Rene	Acosta	Consultant	USAID RDMA	x		x		
37	Ms.	Maria Theresa	Villa	Economic Specialist	ESTH, US Embassy Manila		x	x		
38	Mr.	Adrian	Mendizabal	Information Staff	BFAR Central Office	x		x		
39	Ms.	Mary Joyce	Kipte	Information Staff	BFAR Central Office		x	x		
40	Ms.	Digna	Sandoval	Assistant Director	Bureau of Agricultural Research		x	x		
41	Ms.	Marnelie	Subong	Technical Staff	DA BAR		x	x		
42	Mr.	Efren	Hilario	Aquaculturist II	BFAR Central Office	x		x		
43	Ms.	Glaiza	Hernandez	Information Staff	BFAR Central Office		x	x		
44	Ms.	Movima	Gono	Senior Agriculturist	LGU General Santos		x	x		
45	Ms.	Virginia	Musa	Municipal Agriculturist	LGU Glan, Sarangani Province		x	x		

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Govt	CSO/ NGO	Industry/ Private
46	Ms.	Arlene	Hollero	Agricultural Technical	LGU Maasim, Sarangani Province		x	x		
47	Ms.	Ariane Shane	Valdez	Aquaculturist I	LGU Maitum, Sarangani Province		x	x		
48	Mr.	Jerson	Nerez	Aquacultural Technician	LGU Alabel, Sarangani Province	x		x		
49	Ms.	Mercy	Tomo	Senior Aquaculturist	BFAR Region XII		x	x		
50	Ms.	Gemma Chyrel	Moreno	Senior Aquaculturist	BFAR Region XII		x	x		
51	Ms.	Angelica	Cecilio	Aquaculturist I	BFAR Region XII		x	x		
52	Mr.	Eugene	Casas	Senior Fishing Regulation Officer	BFAR Region XII	x		x		
53	Ms.	Rina	Rosales	Consultant	Resources, Environment and Economic Center for Studies (REECS)		x			x
54	Ms.	Cristina	Opao	Manager	Tuna Explorers Inc.		x			x
55	Mr.	Gerald	Cordero	Manager	Mommy Gina Tuna Resources	x				x
56	Ms.	Ma. Rhona	De Guzman	Technical Services Manager	General Tuna Corporation		x			x
57	Mr.	Marvin	Arreo	Quality Assurance Officer	Philippine Cinmic Industrial Corp.	x				x
58	Mr.	Javier	Masangkay	Quality Assurance Officer	Celebes Canning Corporation	x				x
59	Ms.	Lovella	Magnayon	Logistics Officer	Sta. Cruz Seafoods		x			x
60	Ms.	Wabi Dahran	Basay	Import/Export In Charge	Rell and Renn Seafood Sphere Inc.		x			x
61	Ms.	Zandra Andaya	Villanueva	Documentation In Charge	Rell and Renn Fishing Corporation		x			x
62	Ms.	Rosanna Bernadette	Contreras	Executive Director	SFFAIL		x			x
63	Ms.	Karen May	Feguiras	Logistics Officer	MKMI Fishing		x			x
64	Ms.	Nikke	Serrato	Documentation In Charge	Marchael Sea Ventures Corp.		x			x
65	Ms.	Shalimar	Abdurahman	Project Officer	SFFAIL		x			x
66	Mr.	Eric	Sison	ICT Specialist	SFFAIL	x				x

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Govt	CSO/ NGO	Industry/ Private
67	Mr.	Diony	Seromines	Secretary	Alliance of Tuna Handliner (ATH)	x				x
68	Mr.	Jordan Caise	Alhabsi	Municipal small-scale fisher	ATH General Santos	x				x
69	Mr.	Rhoel	Lenzo	Municipal small-scale fisher	ATH Maitum	x				x
70	Mr.	Kalican	Uyag	Municipal small-scale fisher	ATH Kiamba	x				x
71	Mr.	Efren	Cabug	Municipal small-scale fisher	ATH Alabel	x				x
72	Mr.	Jimmy	Tamayod	Municipal small-scale fisher	ATH Glan	x				x
73	Mr.	Mario	Homecillo	Municipal small-scale fisher	ATH Maasim	x				x
74	Mr.	Arcelio	Fetizanan	Chief Executive Officer	FAME Inc.	x				x
75	Ms.	Joey	Manfredo	Deputy Chief of Party	USAID Protect Wildlife	x				x
76	Ms.	Brynn	O'Donnell	Project Manager	USAD SALT/Fish Wise		x			x
77	Ms.	Amy	West	Project Director	USAD SALT/Fish Wise		x			x
78	Ms.	Jariya	Sornkliang	Socioeconomic scientist	SEAFDEC		x			x
79	Dr.	Nygiel	Armada	Chief of Party	USAID Fish Right	x				x
80	Mr.	Geronimo	Silvestre	Technical Advisor for EAFM	USAID Oceans EAFM TAT	x				x
81	Ms.	Katrina	Hallano	Reporter	Inquirer		x			x
82	Dr.	John	Parks	Chief of Party	USAID Oceans	x				x
83	Mr.	Farid	Maruf	Regional CDT Specialist	USAID Oceans	x				x
84	Mr.	Len	Garces	Fisheries Management Specialist	USAID Oceans	x				x
85	Ms.	Rebeca	Andong	Country Coordinator	USAID Oceans		x			X
86	Ms.	Rosalind	Sichon	Admin, Finance Officer	USAID Oceans		x			x
87	Mr.	Joey	Pedrajas	Asst. Fisheries Management Specialist	USAID Oceans	x				x
88	Ms.	Sheena	Nolasco	Program Assistant	USAID Oceans		x			x

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Govt	CSO/NGO	Industry/Private
89	Dr.	Lily Ann	Lando	Consultant	USAID Oceans		x			x
90	Ms.	Rebecca	Guieb	Development Specialist	USAID/Philippines		x	x		
91	Dr.	Asuncion	De Guzman	Vice President	MSU NFSTDI		x		x	
92	Dr.	Wilfredo	Uy	President	MSU NFSTDI	x			x	
93	Dr.	Marieta	Sumagaysay	Project Lead	WINFISH		x		x	
94	Mr.	David	David	Sustainable Tuna Partnership	WWF Philippines	x			x	
95	Mr.	Jose	Palma	President	WWF Philippines	x			x	
96	Ms.	Cheryl	Ventura	Marine Coordinator	Conservation International-Philippines		x		x	
97	Ms.	Marion	Daclan	Senior Advisor	GIZ		x		x	
98	Ms.	Kristine	Ramirez	Development Manager	RARE Philippines	x			x	
99	Mr.	Elviro	Cinco	CDT Specialist	MSU NFSTDI	x			x	

Table 16: February 11-12 2020: eCDT Technology Showcase, Iloilo

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Gov't	CSO/NGO	Industry/Private
1.	Ms.	Dawn	Quimque	Communication Assistant	USAID Fish Right		x		X	
2.	Ms.	Vivien	Gedalanga	Program Assistant	USAID Fish Right		x		X	
3.	Ms.	Mia	Lopez	Communication Assistant	USAID Fish Right		x		X	
4.	Dr.	Lily Ann	Lando	Facilitator	USAID Oceans		x		X	
5.	Mr.	Len	Garces	EAFM Specialist	USAID Oceans	x			X	
6.	Mr.	Farid	Maruf	CDT Specialist	USAID Oceans	x			X	
7.	Mr.	Patrick	Co	Partnership Specialist	Resonance	x			X	
8.	Ms.	Cadano	Martha	Visayas Representative	BFAR-NFARMC		x		X	

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Gov't	CSO/NGO	Industry/private
9.	Mr.	Jomarz	Yutoc	Computer Programmer	BFAR-CO	x		x		
10.	Mr.	Rowel	Aquino	Computer Programmer	BFAR-CO	x		x		
11.	Mr.	John Gil	Cayabyab	Computer Programmer	BFAR-CO	x		x		
12.	Mr.	Diony	Seromines	Secretary	ATH	x		x		
13.	Ms.	Wilhemina	Guliman	Head, GAD Section	BFAR		x	x		
14.	Dr.	Ben II	Malayang	P.I.	USAID Fish Right	x		x		
15.	Mr.	Edgardo	Morano	Project Staff	USAID Fish Right	x			X	
16.	Mr.	Eric	Tamm	CEO	ThisFish	x				x
17.	Dr.	Nygiel	Armada	Chief of Party	USAID Fish Right	x			X	
18.	Ms.	Diana	De La Cruz	Data Encoder	BFAR 6		x	x		
19.	Mr.	Rene	Acosta	Consultant	USAID	x			X	
20.	Ms.	Rebecca	Guieb	Development Specialist	USAID Philippines		x		X	
21.	Mr.	Fariz	Acron	General Manager	Sisfo Indonesia	x				x
22.	Mr.	Eugene	Casas	Sr. FRO	BFAR 12	x		x		
23.	Ms.	Mercy	Tomo	Sr. Aquaculturist	BFAR 12		x	x		
24.	Mr.	Rax	Otero	Software Developer	ThisFish	x				x
25.	Mr.	Ryan	Bosina	AA IV	ASU-CFMS	x		x		
26.	Ms.	Jelyn	Ramos	Computer Programmer	BFAR-FIMC	x		x		
27.	Mr.	Glenn	Nonifara	OIC-Regulatory	BFAR 6	x		x		
28.	Ms.	Marnelie	Subong	Technical Staff	DA-BAR		x	x		
29.	Mr.	Franchelie	Ladrio		ASSUF	x				x
30.	Mr.	Mario	Runata	Sr. Aquaculturist	BFAR	x		x		
31.	Mr.	Tedy	Harmoko	Manager	Nutrindo	x				x
32.	Mr.	Efren	Hilario	Aquaculturist II	BFAR 6	x		x		

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Gov' t	CSO/N GO	Industr y/private
33.	Ms.	Maria Aimee	Sobrevega	Aquaculturist II	BFAR 6	x		x		
34.	Mr.	Dean	Apistar	Manager	Rare	x			X	
35.	Dr.	Gina	Green	Director	Tetra Tech		x			
36.	Mr.	Jumalin	Barcellano	FRD 2	BFAR 5		x	x		
37.	Mr.	Grecilla	Ramo	NSAP Analyst	BFAR 7		x	x		
38.	Mr.	Erwin	Ilaya	PFO	BFAR 6	x		x		
39.	Mr.	Nilo	Katada	CFRO	BFAR CO	x		x		
40.	Mr.	Ma. Teresa	Rodriguez	Farm Supervisor	LGU-Ajuy		x	x		
41.	Usec.	Eduardo	Gongona	Undersecretary	BFAR	x		x		
42.	Dir.	Remia	Aparri	Regional Director	BFAR 6		x	x		
43.	Dir.	Visa	Demerin	Regional Director	BFAR 13		x	x		
44.	Mr.	Arecelio	Fetizanan	CEO	FAME	x				x
45.	Mr.	BJ	Jalandon	OIC-MAO	LGU-Ajuy	x		x		
46.	Mr.	Noel	Lucero	General Manager	JAGNE	x				x
47.	Mr.	Grudrich	Olila	CF	National Fisheries Reform/ PRRM	x			X	
48.	Mr.	Randy James	Rojo	CF	National Fisheries Reform/ PRRM	x			X	
49.	Mr.	Arnold	De Asis		LBCA	x				x
50.	Ms.	Rosa	Antes	Partnership Coordinator	Resonance		x			
51.	Ms.	Zaena	Mercado		National Fisheries Reform		x		X	
52.	Mr.	Marvin	Arreo		Philcinmic	x		x		
53.	Ms.	Maria Elena	Garces		DA-BAR		x	x		
54.	Ms.	Farra	Francisco		BFAR		x	x		
55.	Mr.	Joey	De la Cruz		OPA-Capiz	x		x		
56.	Mr.	Russel	Sodusta		Resonance	x		x		

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Gov' t	CSO/N GO	Industr y/private
57.	Mr.	David	David	Fishery Technician Officer	WWF-Philippines	x			X	
58.	Dir.	Fatma	Idris	Regional Director	BFAR II		x	x		
59.	Dir.	Lilibeth	Signey	Regional Director	BFAR – CAR		x	x		
60.	Mr.	Mansour	Mamalangkap	Tech Specialist	FAME	x		x		
61.	Mr.	Alejandro	Mahjec	Municipal Agriculture	LGU Manapla	x				
62.	Mr.	Joey	Pedrajas	Fisheries Management Assistant	USAID Oceans	x				
63.	Mr.	Mark	Rufino	CRMO	LGU-Concepcion	x				
64.	Mr.	Emmanuel	Lobredo	FS II	LGU-Concepcion	x				
65.	Mr.	Aldrin Jude	Madalag	System Admin	BFAR 6	x				
66.	Mr.	Joel	Abalayan	OIC, PMES	BFAR 6	x		x		
67.	Ms.	Amor	Diaz	Chief FIDSSD	BFAR 6		x	x		
68.	Mr.	Mark	Villaruz	COO	Saravica Blue	x				
69.	Ms.	Delza	Fuentes	IEC/COMMUNICATION OFFICER	Fish Right		x			
70.	Ms.	Luzviminda	Draios	Chariperson	CHASFA		x		X	
71.	Mr.	Elizar	Saliug	RD	BFAR	x				
72.	Ms.	Marian Jill	Abeto	OIC PFC	BFAR		x	x		
73.	Mr.	Mateo	Doyola	Aqua II	BFAR 6	x		x		
74.	Mr.	Edgar	Borres		Jumbo Fishing	x				
75.	Mr.	Jake	Borres		Jumbo Fishing	x				
76.	Mr.	Dan	Ballao	Chief	SEAFDEC	x				
77.	Dir.	Lilian	Garcia	IED	NFRD		x			
78.	Mr.	Juan	Albaladejo	RD	BFAR 8	x				
79.	Mr.	Jayson	Kasim	Tech Specialist	FAME	x				
80.	Mr.	Ruben	Gamelong	Fisherfolk	n/a	x			x	
81.	Mr.	Giovannie	Endencio	Fisherfolk	n/a	x			x	

Name of Participant				Title	Organization	Sex		Type of Organization		
No.	Title	First Name	Last Name	Job Title	Organization	M	F	Gov' t	CSO/N GO	Industr y/private
82.	Mr.	Jamwin	Gallentes	Fisherfolk	n/a	x			x	
83.	Mr.	Franklin	Gallentes	Fisherfolk	n/a	x			x	
84.	Mr.	John	Gagante	Fisherfolk	n/a	x			x	
85.	Mr.	Neil Bryan	Estilloro	Fisherfolk	n/a	x			x	
86.	Mr.	Arnie	Gamila	Fisherfolk	n/a	x			x	
87.	Mr.	Erwin	Tabuena	Fisherfolk	n/a	x			x	
88.	Mr.	Carmelo	Camente	Fisherfolk	n/a	x			x	
89.	Mr.	Tommy	Embonoy	Fisherfolk	n/a	x			x	
90.	Ms.	Dana	Dela Cruz	Data Encoder	NSAP-6		x	x		
91.	Ms.	Jessa Mae	Roga	Data Encoder	NSAP-6		x	x		
92.	Ms.	Marimar	Cabilogan	Data Encoder	NSAP-6		x	x		
93.	Ms.	Amelyn	Mellizo	Data Encoder	NSAP-6		x	x		
94.	Ms.	Mesa	Sheryll	Project Leader	NSAP- 6		x	x		
95.	Ms.	Angel Jay	Lombres	NSAP Encoder	BFAR-6		x	x		
96.	Mr.	TJ	Manalo	NSAP Encoder	BFAR-6	x		x		
97.	Ms.	Grecilla	Ramo	NSAP Encoder	BFAR-7	x		x		
98.	Mr.	Aldrin Jude	Madalag	System Admin	BFAR-6	x		x		

ANNEX II: SPEECHES

OPENING REMARKS (05 Feb 2020, Handover Workshop, Quezon City)

Ms. Cristina Velez-Srinivasan, Contracting Officer Representative, USAID Oceans and Fisheries Partnership

Good morning. On behalf of the U.S. Agency for International Development, I am honored to attend this closeout event and speak with you all today. The Oceans and Fisheries Partnership would like to extend its gratitude to regional and local partners, including the Southeast Asian Fisheries Development Center (SEAFDEC), the Philippines Bureau of Fisheries and Aquatic Resources (BFAR), local government unit (LGU) partners, the SOCSKSARGEN Federation of Fishing and Allied Industries, Inc. (SFFAI), the Alliance of Tuna Handliners (ATH), USAID Oceans' technology and non-governmental organization partners, and representatives from other US government projects, for your ongoing support for the program and for your participation here today.

This event is an opportunity to recognize our collective accomplishments to combat illegal, unreported, and unregulated fishing, promote sustainable fisheries, and conserve marine biodiversity in General Santos, across the Philippines, and in the Southeast-Asia region. With your support, since the program's launch in 2015, we have developed the Philippines Electronic Catch Documentation and Traceability System (eCDTS) and expanded it to new nodes of the supply fishery supply chain. We have enhanced and supported the use of catch documentation and traceability data to improve fisheries management. We have conducted trainings on gender sensitivity, gender equity and empowerment and financial management for women in fisheries, and have developed a national gender roadmap for the industry. All of these accomplishments would not have been possible without the participation and commitment of those of you here today.

With USAID Oceans' support to develop and implement sub-regional and national sustainable fisheries management plans, Southeast Asian nations improved their natural resource management by protecting marine habitat areas that are over 1.5 times the size of the United States. The program-led sub-regional plan was the world's first of its kind, enabling countries to work together to more effectively manage transboundary fish stocks. This sub-regional EAFM plan was complemented by site-level plans covering Fisheries Management Area (FMA) 716, North Sulawesi, Indonesia, and the Sarangani Bay and Celebes (Sulawesi) Seas in FMA #3 in southern Mindanao fishing area. Through the sustained support of our partners primarily of BFAR and LGUs, the SFMP for Sarangani Bay was formulated which contributes to the implementation of Fisheries Management Areas in the Philippines by BFAR.

You have all played, and will continue to play, an important role in these successes—from developing and managing the technologies and systems that capture essential catch documentation and traceability data, to advocating for gender equitable policies and practices in the industry. The impacts of this work create a ripple effect, strengthening food, maritime, and economic security—as well as improving the lives of the millions that depend upon the sector.

Since 2015, technologies piloted under USAID Oceans have traced and verified the legality and sustainability of over 4 million pounds of tuna—approximately USD \$20 million of U.S.-imported product—from its point of catch to the dinner plate. These technologies promote global stability by

providing fisheries managers with essential information that allows them to conserve Southeast Asian food stocks and marine resources, and even enhance maritime security.

In May 2019, USAID Oceans awarded program grant for “Use of eCDT data for improving fisheries management” to MSU Naawan Foundation for Science and Technology Development, Inc. (MSUNFSTDI) work at the General Santos City, Philippines learning site, in partnership with BFAR. Under the grant, the recipient organizations are expected to collect available eCDT data, conduct real-time analysis, and use analytical results to inform local and national fisheries management decision-making. The Philippines’ advancement of the eCDTS and efforts to promote fisheries sustainability have also moved forward regional traceability, fisheries management, and human aspects of fisheries, and we congratulate partners and stakeholders on your leadership in these areas.

Now, as USAID Oceans comes to a close, in addition to reflecting on the progress we have made together, this week is an opportunity to plan for the way forward. This event marks the conclusion of USAID Oceans’ work in the Philippines and the transition of program initiatives to local ownership to carry forward. We look to our trusted partners such as Conservation International – Philippines and Kabang Kalikasan ng Pilipinas (WWF) and FAME to build off current momentum and ensure the long-term sustainability of our work towards improved fisheries management and deterring illegal fishing.

It is time to plan for next steps to sustain, improve, and scale-up activities to achieve shared objectives. Over the next two days, in addition to sharing experience and lessons learned, we will identify the way forward for CDT, fisheries management, partnership development, and human welfare in the Philippines and will discuss opportunities for continued success in these areas beyond the USAID Oceans project.

We are fortunate to have representatives from government, the private sector, non-governmental organizations, and development partners here today—a model of true collaboration, which can offer multiple perspectives and support system design that is tailored to the country’s needs.

Looking beyond the USAID Oceans program, there is a continued need to effectively manage and conserve Southeast Asia’s fisheries through collecting and using data to guide management efforts. Your commitment and efforts to this end are key to reducing regional illegal, unreported, and unregulated fishing and improving fisheries management. Following this week’s event, we look forward to the Philippines’ continued leadership in these areas.

USAID Oceans would like to congratulate and thank SEAFDEC, BFAR, and all other local and regional partners for the progress made thus far and the progress you will continue to make beyond the USAID Oceans project. Thank you again for the opportunity to participate in this Closeout Event. I look forward to the discussions to come and to following your continued efforts to improve Southeast Asia’s fisheries.

OPENING REMARKS (05 Feb 2020, Handover Workshop, Quezon City)

Mr. John Parks, Chief of Party, USAID Oceans and Fisheries Partnership

Thank you for the privilege of speaking to you all today. The Oceans and Fisheries Partnership would like to extend its gratitude to the Bureau of Fisheries and Aquatic Resources for its hospitality in hosting this important closeout event. We'd like to thank USAID Oceans' regional and local partners, including the Southeast Asian Fisheries Development Center (SEAFDEC), the Department of Agriculture and Department of Environment and Natural Resources, the Local Government Units of Sarangani Province and General Santos City, SOCSKSARGEN Federation of Fishing and Allied Industries, Inc., the Alliance of Tuna Handliners, technology partners, representatives from other important US government programs, and all other attendees for your ongoing support for and involvement with the program and for your attendance here today.

This closeout event marks the end of USAID Oceans' work in the Philippines and the transition of program initiatives and ongoing efforts to achieve shared objectives to our capable regional and local partners. This event is an opportunity for us to share lessons learned over the past five years related to improving sustainable management of fisheries, developing and implementing eCDT technologies, advancing human welfare and gender equity, and establishing strong partnerships to achieve common goals. Following today's event, USAID Oceans looks to you all as leaders to advance these initiatives and to continue taking strides in each of these areas.

We are thrilled to be concluding USAID Oceans' involvement in the General Santos learning site with the launch of the FishMon Center in the BFAR I2 office last week, and the enhanced eCDTS Center at the Navotas Fishport Complex. In addition to providing an integrated platform to visualize and access existing catch documentation and traceability systems, including BFAR's national eCDT system, these centers will be foundational for analyzing eCDT data and using those data to guide sustainable fisheries management practices.

I look forward to hearing from today's speakers and panelists about their experiences implementing a variety of interventions related to an ecosystems approach to fisheries management, improving traceability throughout the supply chain, and advancing women's equitable opportunities in the industry. Most importantly, I am excited to hear about future plans for continuing these initiatives beyond USAID Oceans.

Thank you again for your attendance today, your strong support for the program since 2015, and your commitment to leading efforts to conserving important natural resources in both the country and the region for years to come.

KEYNOTE SPEECH (05 Feb 2020, Handover Workshop, Quezon City)

Dr. William D. Dar, Secretary, Department of Agriculture

On behalf of the Department of Agriculture, I wish to thank the US Agency for International Development or USAID for inviting us to this culminating activity of the USAID Oceans and Fisheries Partnership.

We at DA are privileged to be a part of this project through the Bureau of Fisheries and Aquatic Resources, and today's gathering provides us the opportunity to reflect on our milestones, and firm up strategies on how to sustain the gains we made together.

Approximately 60% of our countrymen live in coastal zones and depend on coastal resources for income and livelihood. But these resources are threatened by illegal, unreported and unregulated fishing (IUUF), which costs us around P68.5 billion per year, based on USAID data.

Hence, combating IUUF is a major component of our drive to promote sustainable fisheries and overall strategy to advance the well-being and resilience of our fishing communities.

In this regard, we at DA through BFAR are privileged to count USAID as among our most reliable partners in implementing IUUF and other science-based resource management measures.

We take pride that our partnership with the USAID and the Southeast Asian Fisheries Development Center through the USAID Oceans project produced a promising technology on catch documentation and a traceability system that can help us safeguard the fisheries supply chain against illegally caught fish, taking into account local and foreign market regulations.

It's worth noting that the results of the project's pilot testing in General Santos City and Bitung, Indonesia have been instrumental in the development of the Regional Electronic Catch Documentation System (ECDTS) Guidance. We hope that the ECDT Guidance will serve as a model for ASEAN Member countries as we carry out our respective comprehensive catch documentation and traceability systems. The service provided by eCDTS is now even more essential with the institutionalization of Fisheries Management Areas or FMAs. Data from FMAs can be inputted into the eCDTS and processed into useful information to support fisheries management measures across the country.

As such, we are looking at scaling up the implementation of the eCDTS not only as a means towards cutting off trade-related activity involved with IUUF, but also in complementing other fisheries management measures such as FMAs as well.

BFAR has so far declared 12 major fishing grounds in the country as FMAs, in a bid to address overfishing, illegal fishing, habitat destruction, pollution and climate change through science-based conservation and participatory management.

In all, our efforts to promote modern and sustainable practices towards more effective fisheries management form part of our New Thinking for Agriculture strategies and framework. Our New Thinking pursues the modernization of the agri-fishery sector in order to address the country's food security and ensure a prosperous life for our farmers and fisherfolk. Thus, our battlecry of "Masaganing Ani at Mataas na Kita." This year, our goal for Philippine fisheries is to sustain and boost its revival after several years of underperformance, as the sub-sector posted a modest but continuous expansion in 2018 (at 1.04 percent) and 2019 (at 1.48 percent).

Toward that end, we will strengthen our internal coordination for faster and more efficient execution of our programs and delivery of services. I have directed BFAR, the National Fisheries

Research and Development Institute (NFRDI), and the Philippine Fisheries Development Authority (PFDA) to unify their plans and programs to improve the livelihood of coastal fishers.

Our goal is to implement a national fisheries development program strategy which will harmonize the strengths of the PFDA in fisheries infrastructure, NFRDI in fisheries research and development, and BFAR in crafting and implementing transformative policies and programs for the common purpose of improving the livelihood of the fisherfolk.

In particular, NFRDI will carry out a “Big Brother, Small Brother” partnership, a pilot project that will foster linkage between municipal fishers and commercial fishers to improve shared resource utilization in a sustainable manner.

Additionally, we directed BFAR Regional Directors to formulate Regional Action Plans to adopt to the different needs of the fisheries sector in their areas.

These are just some of our immediate actions for the sector. Through all these, we will forge stronger cooperation between and among fisheries stakeholders and partners, including industry and private sector partners such as USAID, aware that a big part of our successes rely on your support and participation.

Later today we will hear from our partners about their experiences in piloting the e-COTS, and we are excited to learn more about the ways in which we can collaborate further to enhance and expand its utility.

We trust that their unique experiences and perspectives will help us enrich our strategies and help us come up with sound policies to steward Philippine fisheries to greater sustainability, profitability and employment.

The Filipino fisherfolk is among the “poorest of the poor” among us. And they who have less in life should have more in services.

With that, allow me to congratulate the USAID and SEAFDEC for spearheading the USAID Oceans and our local partners for participating in this endeavor.

I hope that more opportunities beyond the USAID Oceans project will result from this collaboration as we continue to innovate ways on effectively managing our resources through science-based solutions.

Sama-sama nating paglingkuran at palakasin ang kabuhayan at kinabukasan ng Pilipinong mangingisda. Maraming salamat po!

OPENING REMARKS (11 Feb 2020, Technology Showcase, Iloilo City)

Dr. Gina Green, Program Manager, USAID Oceans

Good morning, my name is Dr. Gina Green, I work with Tetra Tech and I would like to thank you all for your attendance at our Electronic Catch and Documentation Traceability e-CDT Technology Showcase, hosted in collaboration with the USAID Fish Right team led by Nygiel Armada – You will be excited about what you're about to learn over the next few days. I cannot tell you how good it feels to be back in the Philippines with my colleagues.

I would like to thank the many people who have contributed to and supported this important event. In particular, thanks to Gov. Arthur R. Defensor Jr. although he cannot physically be here, we know he is here in spirit.

I'd also like to thank Commander Eduardo Gongona, Director General of BFAR, who is here in body and in spirit, and acknowledge and thank Secretary Dr. William Dar for his support and the kind words he spoke at our close out event in Manila.

Of course, I want to personally thank USAID Philippines and RDMA and specifically Rene Castro who designed OCEANS. Rene was the designer, developer and champion of OCEANS about 7 years ago when he worked for the RDMA. I'd like to thank Cristina who has stuck with us through thick and thin and of course thanks to our own Becky Guieb – I cannot tell you how much respect this person has in Washington DC, with her colleagues at the FAB office – if it is ok with Becky it is ok with them....There are many more people I need to personally thank since they have worked day and night on the implementation of OCEANS for the past 5 years. It is positive people that make these positive changes.

This Showcase event is an opportunity for us to share lessons learned over the past five years related to improving sustainable management of fisheries, developing and implementing e-CDT technologies, advancing human welfare and gender equity, and establishing strong partnerships to achieve common goals. We are also formally recognizing the conclusion of the USAID Oceans and Fisheries Partnership's (USAID Oceans) work in the Southeast Asia region and today we recognize and celebrate the collective accomplishments made with our Philippine partners. These partners include our first movers SAFI, Alliance of Tuna hand liners, the Southeast Asian Fisheries Development Center (SEAFDEC), and our NGO partners such as WWF, CI and RARE.

The e-CDT system that has been developed and piloted through the OCEANS Project documents key information about harvest, processing and transportation of fisheries products to enable traceability from harvest and point of origin to its destination – a process that eliminates the chances of IUU fishing and illegally-caught fish from entering the market. The e-CDT system is a tool that will enable the Philippines to sustainably manage the country's vast marine and fisheries resources, and the important work started through the OCEANS Project will be extended and expanded through the USAID Fish Right Project and with BFAR.

As Secretary William Dar said, "I also understand that this five-year learning, experimenting and piloting and the good lessons that we have achieved with the USAID here, nurturing this project with us and with BFAR having been deeply engaged, having been deeply involved by now, it's all here in our hearts and minds, and it is now time to institutionalize these learnings, these experiences,"

The USAID OCEANS project pioneered cutting edge e-CDT technology that has won important awards. The Environmental Business Journal (EBJ) honored OCEANS with the Technology Merit Award. The award recognizes "Demonstration, development or commercialization of a new technology." In addition, Tetra Tech selected the OCEANS Project from among all Tetra Tech's projects as the winner of its annual Use of Technology Award. Again, thank you for attending this Showcase event and I hope that you enjoy the next few days.

ANNEX III: PARTNER TESTIMONIALS

BFAR 12 Testimony

Presented by RD Usop D. Pentaliday, Jr.

To our partners, the USAID Oceans, the First Movers of the fishing industry and the processing industry, to our colleagues in BFAR central Office, good morning. The USAID Oceans and Fisheries Partnership Project has changed the way we think of fisheries management and introduced us to innovative ways to achieve sustainable development.

The USAID Oceans works streams, namely: the EAFM and Sustainable Fisheries Management Plan, the Public Private Partnership, the Human Welfare and Gender, and the development of the Electronic Catch Documentation System had an enormous impact in the way we see fisheries management.

We have learned that to achieve sustainable fisheries development, that is to ensure development that meets the needs of the present without compromising the ability of future generations to meet their own needs, we should consider a different approach to the traditional single-species approach to fisheries management. Through this project we learned of a better strategy to fisheries management. We learned about the Ecosystem Approach to Fisheries Management or EAFM, defined as “an approach to fisheries management and development that strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic, and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries.”

Needless to say, this is a more complex approach, but we will take this as a challenge to pursue the goal of food security and sustainable development for we are now armed with the lessons learned during the implementation of this project. What have we learned? We have learned many things, but we will mention a few important learnings we had. One, public-private-partnerships deliver equitable results. We realized that government needs the partnership of the private sector not only to deliver services better and with more efficiency, but in developing innovations in service delivery as well. An example of this is the development of the Electronic Catch Documentation and Traceability System or ECDT, which, without the help and cooperation of the fishing sector, through the Socksargen Federation of Fishing and Allied Industries Incorporated and the Alliance of Tuna Handliners, might not have survived the planning and development stage. Now, the ECDT is nearing its completion, having went through a series of pilot tests. Although it's not perfect, we believe that it can now be scaled for wider use.

Two, we must support gender and development and integrate its principles in the conceptualization and planning of livelihood programs. Empowerment of women is needed to achieve social change and economic prosperity. After all, one-half of our nation's human resource is composed of women. Three, electronic monitoring systems are a powerful tool in combatting Illegal, Unreported and Unregulated Fishing or IUUF. Electronic catch documentation and traceability systems, vessel monitoring measures and electronic catch reporting reduce the chances of IUUF sourced fish entering the supply chain thus denying them entry to markets both local and global.

It is our fervent hope that the ECDT that we have proudly developed together will be used nationwide and we will not hesitate to share with you the lessons we learned when we developed and used the system. Fourth, we learned that in crafting a sustainable fisheries management plan, we must use all available information, data and knowledge concerning the natural ecosystem, the people, the social dynamics, politics, economics and in local and international relationships because everything is connected and there needs to be a balance and restraint in how we exploit our resources in order to ensure sustainability while recognizing that our natural

environment is being affected by climate change. And finally, data analytics developed and accessed through information technology may enable improved sustainable fisheries management.

We assure you that the lessons we learned will not go to waste. We intend to use the EAFM approach in all our fisheries development plans. We shall proactively ensure that women will be empowered, and we shall demand their participation not only in the planning process but also in the decision-making process. We shall also support the further development of electronic monitoring systems and data analytics systems, including the ECDTS, and demand that such systems be implemented nationally. And we shall ensure the participation of the public sector as a partner in the planning and implementation of future projects in sustainable fisheries management.

Thank you and good day.

TESTIMONIAL OF THE MUNICIPALITY OF MAITUM

Presented by Ms. Ariane Shane Valdez

On behalf of our Municipal Mayor, Hon. Alexander Bryan B. Reganit of the Local Government Unit of Maitum and the office of the Municipal Environment and Natural Resources headed by Mrs. Nannette R. Nacional, it is indeed an honor to greet you all a pleasant morning.

Being a partner of the USAID Oceans, it is also our goal to combat illegal, unreported and unregulated (IUU) fishing, we from the Local Government Unit of Maitum strive hard on the implementation of the RA 10654. It is also our responsibility to improve the fisheries management and protect individuals in the fisheries sector, especially our beloved fisherfolks of the Municipality of Maitum, Sarangani Province.

We thank the USAID Oceans and Fisheries Partnership and the whole Oceans team and BFAR who patiently, actively and passionately supported us, while the project is being implemented, from the data gathering, to the Focus Group Discussions and eventually up to the dry run process for the municipal catch documentation and traceability system through FAME technology, it is without doubt an awesome journey.

The Project provided us the opportunities on the business sectors, investors are coming to our municipalities to put up their businesses, on buying the Tuna's that being tagged through this municipal eCDTS implementation.

The Electronic Catch Documentation and Traceability (eCDTs) helped us practice on documenting key information about the harvest and transportation of fishery products. Our views has been widen up more through the Ecosystem Approach to Fisheries Management (EAFM) across coastal and marine areas and their natural resources that promotes conservation, preservation and sustainable use of the whole ecosystem. Yes to Responsible Fishing!

Clearly, fisheries face many threats, issues and challenges that reduce their potential to contribute to a sustainable development, but if we work hand in hand, intensify the IEC's, monitoring, surveillance and patrolling and with good governance surely, we will achieve our sustainable goals for fisheries.

The challenge now by the USAID Oceans, is that we from the Local Government Unit of Maitum, Sarangani Province, will strive hard to continue implementing the traceability of every fishery products, we will improve the transparency more and accountability in the seafood supply chain in our Municipality, through combatting illegal, unreported, unregulated and unsustainable fishing.

ANNEX IV: ACKNOWLEDGEMENTS

The following USAID Oceans partners each received a Plaque of Appreciation during the handover workshop as a thanks for their ongoing support for the program and success leadership promoting the sustainability of Southeast Asia's fisheries.

- | | |
|--|--|
| 1 Bureau of Fisheries and Aquatic Resources | 23 Department of Environment and Natural Resources (DENR) Region 12 |
| 2 Bureau of Fisheries and Aquatic Resources Region XII | 24 Department of Environment and Natural Resources - BMB |
| 3 Tuna Explorers Inc. | 25 Philippine Fisheries Development Authority |
| 4 Mommy Gina Tuna Resources | 26 SOCSKSARGEN Federation of Fishing and Allied Industries Incorporated (SFFAI) |
| 5 General Tuna Corporation | 27 Futuristic Aviation and Maritime Enterprise, Inc. |
| 6 Philippine Cinmic Industrial Corporation | 28 Mindanao State University Naawan Foundation for Science and Technology Development Inc. |
| 7 Celebes Canning Corporation | 29 The National Network on Women in Fisheries in the Philippines (WINFISH) |
| 8 Sta. Cruz Seafoods, Inc. | 30 World Wide Fund for Nature (WWF) Philippines |
| 9 Rell and Renn Seafood Sphere Inc. | 31 Conservation International-Philippines |
| 10 Rell and Renn Fishing Corporation | 32 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (GIZ) |
| 11 Jebo Fishing | 33 USAID Protect Wildlife |
| 12 RD Fishing Industry, Inc. | 34 USAID SALT/Fish Wise |
| 13 MKMI Fishing | 35 USAID Philippines |
| 14 Dex Sea Trading | 36 USAID Fish Right |
| 15 Marchael Sea Ventures Corporation | 37 WorldFish |
| 16 Alliance of Tuna Handliners (ATH) Inc. | 38 Sarangani Bay Protected Seascape - Protected Area Management Board (SBPS-PAMB) |
| 17 City of General Santos | |
| 18 Municipality of Alabel, Sarangani Province | |
| 19 Municipality of Maasim, Sarangani Province | |
| 20 Municipality of Glan, Sarangani Province | |
| 21 Municipality of Kiamba, Sarangani Province | |
| 22 Municipality of Maitum, Sarangani Province | |

ANNEX V: QUESTIONS AND ANSWERS

Table 17: Questions and Responses During Facilitated Discussion

THEME	QUESTION	RESPONSE
COST OF THE TECHNOLOGY/ SUBSCRIPTION	How much does it cost so we'll have an idea?	Roughly its around P800 monthly.
	Is there no way for you to have a system that will be on credit in a way wherein everything will be paid onetime payment? And there's no subscription.... In the long run the fisherfolk would have a hard time to pay the monthly subscription. So I think the partners here would be happy to find a system for certain municipalities that really need it para makuha yung monthly subscription fee.	Actually yes, we are very open to that naman po. May mga nakakausap din kami, ganun din po ang kanilang concern. 1. Una, they want their data to be on their own 2. Tapos at the same time, gusto nila own premise (premises?). Para ang monitoring nila yung mga talagang boats nila. We can actually talk about that po. So we're very open to that possibility.
	Yung pinaka concern kasi ay is it affordable for the municipal fishers?	That's what we are working on naman Maam. The manufacturers want volume, mga 10000 units. That's quite big. If we can actually achieve that we can lower down the cost. So we're working on that, to be able to do that.
	Yung pinakabasic na transponder uses something around P800 per unit. How many units for subscription of 800 per month?	Right now that's the price that we give for example, one fish owner (fish boat owner?)/boat owner has four boats, so we install it to them for this price.
	For the cost of P800, how many cards, NFC cards, will be given to each boat?	Sa ngayon po, ang ginagawa sa Palawan at sa Mindoro ay kung ano yung capacity nung boat po (alam nila ang average kung ilan yung nadadala nilang isda) ganun kadami ang binibigay ko.
	Is it all part of the initial cost?	Yes po, single cost lang po iyon.
CONDITIONS OF SUBSCRIPTION	Why is it subscription based? Is it because the terrestrial equipment that we'll be putting up will still be manned by FAME?	No sir basically kasi yung platform namin it's being used. So you have access to your data with your own user name and password in the cloud and you can see your own data lang po.
	Pero while you are on subscription, who owns the transponder? Kayo pa rin?	Hanggang makuha Sir. Yes sir, hanggang makuha.
	Pag subscribe mo, when will the unit be owned by the subscriber? Ilang months?	Normally po, three years yun eh.
	Three years? So after the subscription, the unit will be ours already?	Opo.
	But during the three years, if the devise is broken, you will replace?	Yes. But after the three years, there is no warranty. We continuously upgrade the firmware naman po.
HARDWARE	Is it possible for us to monitor the activities in the boats even if they don't have the transponder? Or do we really need to have a transponder?	Yes po. You really need to have a transponder on the boat, you can actually monitor it. Its an active devise, it sends data. You really have to have it.
	So terrestrial equipment will be sold as well alongside with the transponder?	Again, kasama na siya dun sa monthly. Pag natapos yung subscription kasi ay normally 3 years. After

THEME	QUESTION	RESPONSE
		three years, you'll be paying still the monthly pero mas mababa na po kaysa dun sa una.
	Ibig sabihin niyan pagtap namin halimbawa dito, dapat may laptop din yung broker?	Yes sir. Dun sa kanina sir, may computer. Pero puwedeng tablet lang sir at dapat may devise din siya.
	Tapos bibili din siya nung tapping machine? So ibang negosyo ulit?	Yes sir Yes sir. We can actually discuss about this sir.
	Puwede ba itong gamitan ng solar?	Yes po, actually may solar siya sa ibabaw.
SOFTWARE	Useless din na we own the unit but we cannot operate it without your system. We need an independent software so we can operate on our own.	We're open to discussions on that para isang package na kaagad yung ibigay namin. That can be an option po.
	There's already a program for that? Per boat yun?	Yes sir
LESSONS LEARNED FROM OCEANA PILOT	You mentioned nagpilot kayo with Oceana. What were the lessons from that pilot?	Ang dami po naming naging realization dun. 1. Una nga po it's the Battery life and then yung redundancy of power kasi hindi natin alam kung anong nangyayari sa dagat din pagka ano. 2. Isa pang natutunan namin dun ay Dati yung mga wires namin ay nakalabas. Pag nakita niyo ang installation before may wiring, may antenang nakakabit. Kaso ilang linggo lang putol kaagad. Hindi naman sa ano pero nababanggit ng mga mangingisda na natatamaan kasi. Kasi galaw po sila ng galaw dun sa banka nila, natatamaan and then nahuhulog. Minsan nahulog - may mga ganoong instances po. So from there, we actually iterated the product para magfit naman po dun sa needs ng user. And then magkaroon kami ng redundancy, and then yung power din mas pinalakas namin. 3. And then the Range itself also. Technically the range is for 50 km but the range does increase as the number of transponders and gateways increase.
APPLICATION OF THE TECHNOLOGY	Actually I just wanted to ask kasi we are also doing manual grid mapping.... Fish Right right now pero mano-mano po naming kinocollect ang information. Now this technology, I just wanted to ask, kasi this kung isi-share sa mga municipal fishers kasi halos lahat ng data namin pumapasok ay municipal. And I guess kung meron sana ang kun gpapayagan ang mga municipal fishers to subscribe on this technology, mava-validate po yung mano-mano naming grid mapping. Kasi for now, its just perception-based hind coordinates-based ang mga iyan eh. Mga landmark landmark lang ang ginagawa. Right now we don't have any way to validate those informations that we have collected for almost a year now. So actually, its help for us	We are very interested Mam to partner .

THEME	QUESTION	RESPONSE
	kasi dun natin malalaman saan nangingisda per year per boat.	
	For example if you just want to highlight a certain area. Kasi theres now a nationwide NSAP. But the verification part is what we lack. Now if we just focus on one area where we will do the verification such that we can use that to calibrate the others. For example, a place like Visayan Sea. How many gateway do I need for a place like Visayan Sea? And can it even get to the point of receiving signals from the gateways/transponders?	Right now we normally install only where we have projects. So we're limited to that right now. But as mentioned we are working on that na talagang mapuno namin nationwide to actually put more gateways. Iyun po ang target namin. And kung mas marami po ang gumagamit ng transponder, mas malayo po yung mararating . Target talaga namin.
	So walang isi-nave for Visayan Sea na gateways or anything?	Tingnan ko sir, I can give that to you. I can email. So we have a list kasi kung nasaan yung positions na pinag-aralan namin kung saan ikakabit.
	Kasi if we try to look on the data like the longitude and latitude...and all the other gears like mobile gears or commercial trawls have a start and end. So from the fisheries side, you should know where it starts and where it ends.	Later po, siges po ipakita ko po iyon.
CANT HEAR THE SOUND FROM TRANSPONDER	I have a question about the point of the fisherman getting a response when you tap it. I saw it na you don't know if there is already a transaction happening, especially if the boat engine is quite loud	<p>Farid: You can verify with Junjun. But I think you saw it that there is a new casing that have a LED. So that it will glow to know that it is already tapped.</p> <p>JunJun: We're putting a sound. Just like the sound of POS machine. Yes sir kung napansin po ninyo yung dala ko kahapon na device, may LED screen na po siya so you can actually see.</p> <p>Ann: Junjun says that their newest units will have a LED indicator.</p>
PILOTING PERFORMANCE	How many fish have you actually tagged? What is the error rate for instance for fishers getting tagged?	Since we started it actually a lot has happened. Making a mistake - one of the things that happened before when we deployed that, theres no way/indication where you will tap. So we had to show to them how to tap it. So they tap on the back, on the side. So since its on the top, its difficult for them, so they need to do that (<i>demonstrating how</i>) in order to tap. So what we did was to actually make adjustments to that. So now they can actually tap it also.
	How many fish? How many fish?	The season last year in Palawan actually its continually being used.