

ICAWR Annual Report 2019



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Network Activities Group

IMPROVED CO-MANAGEMENT OF AYEYARWADDY WETLAND RESOURCES

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ANNUAL REPORT

REPORTING PERIOD

1st Jan - 31st December 2019

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24TH FEBRUARY 2020

PROJECT INFORMATION AND RESOURCES
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Project title:	IMPROVED CO-MANAGEMENT OF AYEYARWADDY WETLAND RESOURCES
Implementing Partner(s) and local Partner(s)	Network Activities Group (NAG) & Ayeyarwaddy Fishery Network
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Project Starting date	Project completion date	
	Originally planned	Current estimate
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Approved Total Budget	Latest Signed Revision (US\$)
999,831 USD	1,024,651 USD

Approval Date of Amendment	Nature of the Amendment
20th June 2019	Amended Research Component

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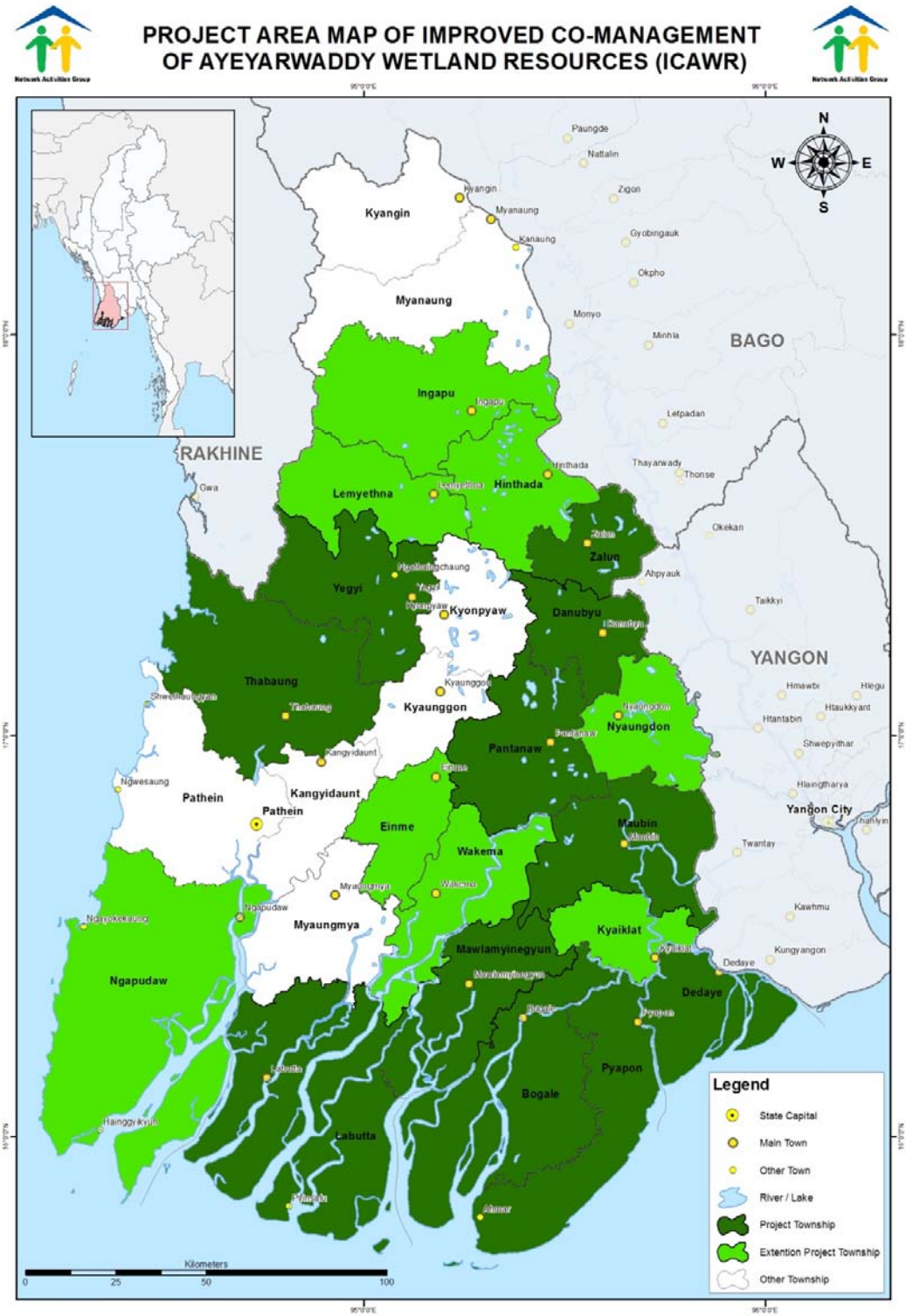
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LIST OF ACRONYMS

ARFN	Ayeyarwaddy Regional Fisher Network
BQ	Bill of quantities
CBC	Center for Biological Conservation
CDD	Community Driven Development
DoF	Department of Fisheries
DDG	Deputy Director General
DRD	Department of Rural Development
DRM	Disaster Risk Management
DSA	Daily Subsistence Allowance
FDA	Ayeyarwaddy Fishery Development Association
GMP	Good Management Practice
GoM	Gulf of Mottama
ICAWR	Improved Co-management of Ayeyarwaddy Wetland Resources
IUU	Illegal, Unregulated & Unreported.
LEARN	Leveraging Essential Nutrition Actions to Reduce Malnutrition
MPT	Myanmar Post Telecommunication
MOALEC	Ministry of Agriculture, Livestock and Environmental Conservation
NAG	Network Activities Group
NCDD	National Community Driven Development Project
PQL	Program Quality & Learning
SDC	Swiss Development Cooperation
SSF	Small-scale fishers
SOP	Standard Operating Procedures
SSOP	Sanitary Standard Operating Procedures

Project Area Map



SUMMARY OF PROGRESS ACHIEVED DURING THE REPORTING PERIOD (JAN – DEC 2019)

During the period of 1st January to 31st December 2019, the ICAWR project continued to make good progress towards each of the planned outcomes. This progress, by outcome, is summarized below:

Outcome 1: Increased participation of communities in fisheries co-management;

- Project area extended to 19 townships of Ayeyarwaddy Region;
- 185 village fisheries organizations, 6 district level fishery organizations, 19 township level fishery organizations and 39 cluster fishery organizations supported.
- 166 fishing grounds awarded to community organizations in the 2019/2020 auction season;
- Co-management campaigns conducted at 2 new clusters;
- GIS Mapping meetings with Regional Minister, Directors of DoF and Department of Settlements and Land Records;
- Co-management Training and Disability Inclusive Development Training provided to community leaders;
- Formation of Township level working groups for FDA formation in new areas
- Grant Aid support for 17 fishery conservation zones
- Additional financial support to 28 conservation projects;
- Conservation related IECs developed, targeting conservation zones;
- DRR and Climate Change training provided to new cluster area' members;
- Two SME Study visits to Kyeik Latt and Myeik Townships;
- Post-Harvest – Ready-to-Eat Snakehead Dried Fish Production training provided to Women Groups' members and Fishery Leaders in townships;
- Grant Aid support to 5 SMEs: Labutta, Thabaung, Pantanaw, Zalun and Danubyu Townships
- Conducted SME program review by Fishery Value Chain Specialist
- Produced and distributed 1900 copies of Co-management Notebooks within project areas
- Nutrition Training provided to members of ARFN and FDAs from 13 Townships;
- Study on Kyar Phong, (Raft) Fishery Workers and Owners conducted in Pyapon and Ye Townships
- Advisory input from International Fisheries and Co-management (IFCM) specialists for research planning and co-management measures in target areas;
- Advisory input from Gender Fishery Value Chain Specialist for developing women group targeted business plans.

Outcome 2: An approved legal framework for supporting community access to, and the conservation of natural resources

- Enactment of the new Ayeyarwaddy Regional Freshwater Fishery By-Law (10th April 2019);
- By-Law Awareness Raising meetings conducted in 19 Townships;
- 252 copies of 'Do's and Don'ts' vinyl distributed to 19 Townships;
- Ayeyarwaddy Fishery Partnership Workshop conducted to design Policy Impact Study
- Policy Impact Study conducted in 4 Clusters of Ayeyarwaddy Region.



Outcome 3: Improved performance of Government institutions

- Meetings on construction process and development, involving DoF officials, responsible persons from Construction Company, and project staff from the Fishery Training Center, organized at Pyapon Fishery Training School;
- Construction of Pyapon Fishery School, completed;
- Regional, District and township DoF Officials participated in developing Pyapon Fishery School Operational Plan;
- Developed Value Chain Curriculum, and published fishery manuals for Marine fishery, Small-scale fishery and Brackish Water fishery;
- Organized Inter-state Fishery Partnership Workshop in Set Sal;
- Fishery Related Training provided to DoF Staff at Pyapon Fishery School;
- Co-management M&E System Developed and installed in 6 clusters;
- Co-management M&E System review workshop conducted.

Outcome 4: The establishment of effective Fisheries Partnerships & Networks; Networks & Partnerships

- 4 ARFN meetings organized in Patheingyi;
- 11 Township Level FDAs meetings in 11 townships organized;
- 12 District level FDAs meetings organized;
- Co-management Plan Review and ToT Training for 32 members of FDAs;
- Bio-Metric Measuring Fish and Socio-Economic Monitoring System Installed at 3 Co-management Zones
- Media Training provided to 19 fisher leaders;
- Participation in National Level Fishery Co-management Forum, June 2019;
- Published 1,850 copies of newsletter and disseminated to relevant stakeholders and agencies;
- Shooting of Fishery Governance Documentary in Project Areas.
- Organizational Development Workshop for ARFN and FDA in Patheingyi conducted.

NAG institutional capacity Building

- NAG Procurement and Standard Operational Procedure, initiated,
- NAG Communication Policy updated;
- NAG IT Policy introduced;
- Installation of NAG Organizational MIS System;
- Internship Program at ICAWR Project, 1 Female intern placed.
- Research Internship report on 'Women Roles in Fish Processing & Marketing';
- Finished the 9-month- 8 Phased Statistics Training for NAG staff;
- Organized Supply and Logistic Training for project related staff;
- Organized Communication Policy Review & Strategy Development Workshop.



1. PROJECT PERFORMANCE AND RESULTS

1.1. Background to the Project

The fisheries sector in Myanmar plays a crucial role in shaping the national economy, as well as providing livelihoods and food security to an estimated 2.6 million people. The Ayeyarwaddy Region is rich in terms of biodiversity and fisheries productivity, and support hundreds of thousands of small-scale fishing and casual laboring households. Despite the relatively abundant natural resources, the prevalence of poverty in the Delta remain high at 26% and in most Delta villages landlessness levels are above 50%. Thousands of households in the southern Delta region were left impoverished by Cyclone Nargis in May 2008, which caused huge loss of life and massive damage to property, and many are yet to recover fully. In recent years several organizations, (including NAG, supported by LIFT funding) have assisted community organizations in gaining access to local tender fisheries to demonstrate the feasibility of this approach to Government. Through these pilots, the benefits to fisher communities have become clear, including reduced operational costs and increased incomes for small-scale fishers through the wider access to fishing grounds. The continued development of this approach and its long-term sustainability with appropriate cost recovery mechanisms is a major issue explored under the NAG/LIFT strategic partnership.

The NAG/LIFT partnership has been operationalized through the 'Improved Co-management of Ayeyarwaddy Wetland Resources Project'. The Goal of the Project *is improved co-management of wetland resources in Ayeyarwaddy Region*. The Project has 4 Outcomes:

1. Increased participation of communities in fisheries co-management;

The Project aims to establish 70 fishing community organizations in 5 districts of Ayeyayrwaddy Region. Better access to the fishery for small-scale fishers is aiming to improve family nutrition and create saving opportunities.

2. An approved legal framework for supporting community access to, and the conservation of natural resources;

Following the successful passage of the new Ayeyarwaddy Freshwater Fisheries Law, the Partnership focuses on the drafting of Community Fisheries By-laws and Regulations that will support the registration and administration of community fisheries co-management organizations.

3. Improved performance of Government institutions;

NAG works closely with the DoF at regional/state and Union levels, to help bring about necessary changes for wider co-management reform and modernization of the Department. The LIFT partnership provides opportunities for the DoF to explore new roles and develop the capacity of its own staff, to perform more effective extension and training support roles.

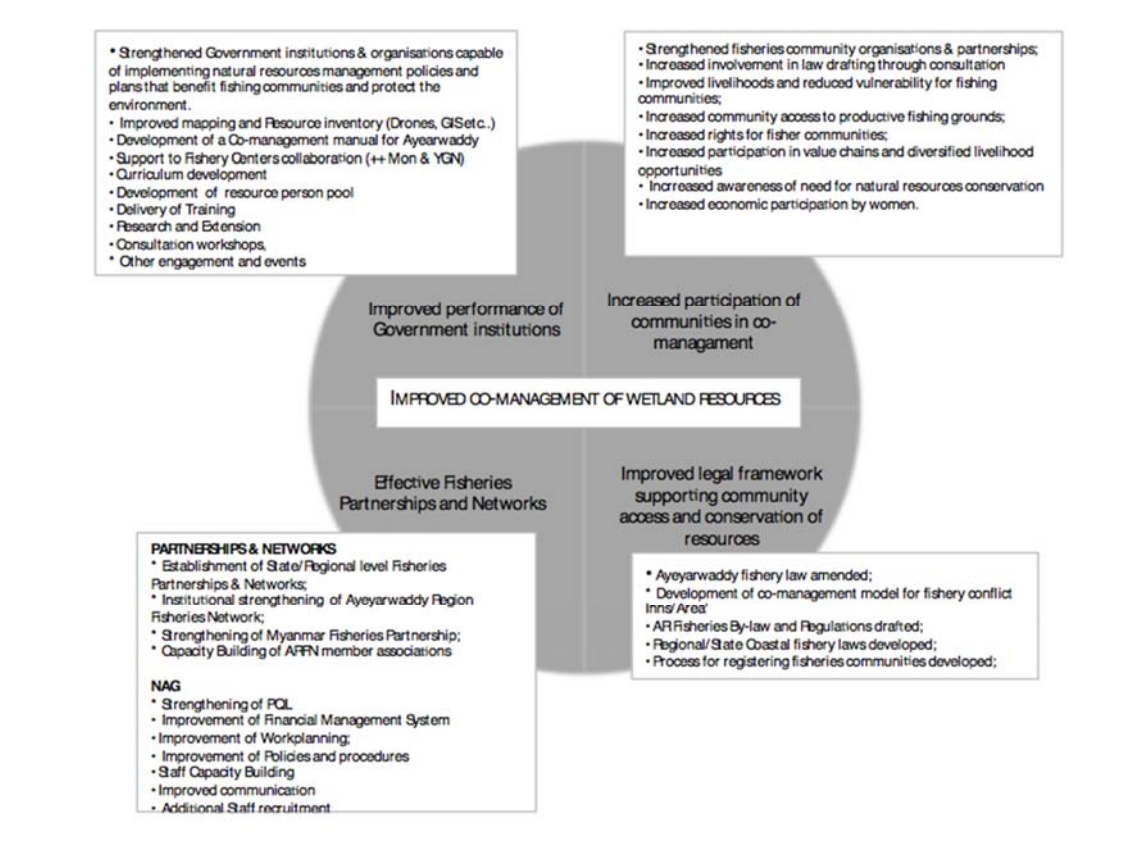
4. The establishment of effective Fisheries Partnerships & Networks;

NAG's influence in fisheries governance supports a range of Regional/State/District Small-scale Fisher Development Associations and Fish Workers Associations in the coastal states and regions,



including Ayeyarwaddy Region. The Project also helps strengthen NAG's own institutional capacity for implementing development Projects.

Project activities relating to four outcomes are found in the TOC diagram below.





2. PROGRESS TOWARDS THE EXPECTED OUTPUTS AND OUTCOMES, AND PROCESSES

2.1. Outcome 1- Increased participation of communities in fisheries co-management

2.1.1. Fishing ground Allocations to communities 2019/20

In 2017, The Regional Minister of Agriculture, Livestock, Natural Resources and Environmental Conservation, implemented a policy that all fishing ground leases and tenders under a value of 4,000,000 kyat, and some that had a history of stakeholder conflict, would be offered to communities to co-manage.

Through the ICAWR project, NAG had been providing support to fishery groups interested in applying for permission to operate inn/tender through co-management associations. Capacity Building Coordinators on the project team have acted as facilitators and helped establish and strengthen links between the Fisher Development Associations (FDA) and the DoF. The Project Coordinator, Advocacy and Communication Coordinator and Capacity Building Coordinators meet regularly with the Regional, District and Township level DoF officers to facilitate smooth processes and to facilitate community access to the proposed fishing grounds at the floor price.

For the 2018/2019 fishing season, a total of 1,777 leases and tenders were identified for auction or allocation, of which approx. 400 leases/tenders had a value below 4,000,000 kyat. NAG assisted 50 of these communities in submitting applications for consideration by the DoF. For the 2018/19 fishing season, **118 fishing grounds (79 Inns & 39 Tenders) were awarded to 120 villages as community led fishery co-management areas.** A total of 87 fishing grounds (49 Inns & 38 tenders), 77 villages are within the project area whilst the rest, (31 Inn/tenders) are outside of the project area.

For the 2019/20 fishing season in Ayeyarwaddy Region, a total of 1,777 Inns were identified for auction or allocation, of which 487 Inns were identified for allocation to community groups, 628 Inns were identified for auction, 433 were the Kyay Taing Inns, and the rest have been identified in different types of Inns. A total of 2,066 Tenders were identified in the form of 455 open tenders and 1,870 tenders that have already been sold out. NAG supported communities in applying for 168 fishing grounds (122 Inns, 43 Tenders and 3 Open Fishery) through local FDAs from 18 Townships. As the auction results announced at the end of July 2019, a total of **166 fishing grounds (119 Inns, 44 Tenders and 3 Open Fisheries) were awarded to the community groups.**

Detailed information on the awarded fishing grounds for the 2019 Auction can be seen at Annex 1.

2.1.2. Co-management Campaigns conducted in new extended 2 clusters

During this reporting period, regular co-management awareness raising programs were carried out continuously in two new clusters; Min Ta Su Cluster (Pantanaw Township) and Zin Ywe Kyi Cluster (Labbuta Township). Through these awareness events, the project encouraged those community members who had gained a good understanding of co-management concepts, to form fishery co-management groups and establish patrolling committees in their villages. It is hoped that in the long term, these members will continue to champion the cause of fisheries co-



management and they will have an important role to helping communities retain a strong interest in natural resource conservation.

2.1.3. GIS Mapping for Inn/Tender areas in Ayeyarwaddy Region

In earlier work, The NAG GIS team had mapped 282 Inn areas in Pantanaw Township with the full cooperation of Department of Fishery. GIS training for department staff was provided in August 2018.

In February 2019, NAG program team conducted a meeting with the Regional Minister of Agriculture, Livestock, Natural Resources & Environmental Conservation, and Directors and Officers from the Department of Fishery, and the Department of Settlements & Land Records, at Ayeyarwaddy Regional Government Office. At this meeting, NAG team shared the experiences of the GIS Mapping Pilot and acquired the agreement of U Hla Kyaw, Deputy Union Minister for Minister of Agriculture, Livestock and Irrigation, for the broader mapping and updating of Inn boundary demarcations. The process for updating the Inn Maps in Ayeyarwaddy Region was discussed and the following steps were agreed:

- Develop a plan to request a budget through Parliament;
- Organize a working committee with a meeting planned for October 2019;
- Identify the priority areas/ townships for mapping;
- Measure the priority areas, with technical support of the ICAWR project
- Compare the updated GIS maps with the 1905 Inn maps and the maps of the Land Record Department;
- The working Committee and/or Regional Committee will review any contradictions in the maps and propose new boundary demarcations;
- Consultation with the respective communities will then take place, especially in potential conflict areas and the proposed demarcation will be adjusted if necessary.

At the meeting, Maubin Township was prioritized for updating the Inn maps, followed by Pyapon Township. Budgeting amount at 164,450,000 MMK for updating the Inn maps was officially included in the 2019/20 budget of the regional government. The government departments informed NAG that they will do the map updating on their own, as they officially hold the budget in hand. However, the Department of Settlements and Land Records was not ready for this mapping as they claimed there could be unresolved boundary demarcation disputes between farmland and fishing grounds, when it comes to the regional-scale. Significantly, the 2020/21 budget does not include a budget for updating the Inn maps and this issue will require further exploration and project support in future years, if it is to be resolved. The Department of Fishery (DoF) is eager to go on with the plan of updating the Inn maps and has requested NAG to support the mapping of aquaculture ponds where their power stands alone, rather than updating the Inn maps in the regional-scale where they share power with the Department of Settlements and Land Records. Mapping issues for Inn maps cannot be solved at Regional Level and there is needing Union Level intervention with strong official instruction rather than the oral instruction. The project team will focus higher level advocacy to Union Government to solve this issues under SP2.

2.1.4. Capacity strengthening of community fishery leaders



NAG undertook a Co-management Training for DoF staffs and members of FDAs and ARFN, which included bio-monitoring aspects, on 13th -14th March 2019, at the Fishery School in Pyapon. During the training, the NAG team used Power Point presentations, brain storming exercises, and group discussions to generate information on many issues including; different types of resources; trends of climate change; root causes of resource decline; impacts of the decline on human well-being; and appropriate systems and approaches to address resource depletion.

The co-management training was instrumental in making the DoF staff more aware of the key themes of resource co-management; in understanding the respective roles and responsibilities of the fishery communities and government agencies; in co-managing fishery resources and in developing the crucial step-by-step actions needed to implement fishery co-management plans at different levels. Moreover, alongside the training, orientation was provided on the basic concepts of effective group formation and management, including the skills needed for effective facilitation, presentation, leadership and conflict resolution.

In addition, on 8th April and 9th April 2019, an introduction to Disability Inclusive Development Training was provided to 32 fishery communities' leaders by Daw Nwe Ni Win, Associate Disability Inclusion Advisor of The Leprosy Mission Myanmar at Shekinah Hotel. During the training, the participants were introduced to issues including; identifying barriers to disability ; the types of barriers faced by people with disabilities; exclusion, segregation, integration, inclusion; legal frameworks; and unmasking myths.

In collaboration with the ICSF project, funded by FAO, the ICAWR project conducted a 3-day Ecosystem Approach to Fishery Management Training on 24th to 26th December 2019, in Pathein – Myanmar Koe Hotel. The training was intended to improve the capacity of the members of FDAs and ARFN from the area of tenders in Dadaye and Pyapon; on the understanding and application of ecosystem approach to fisheries management so they would consider the gained knowledge and skills in the existing fishery co-management activities. A total of 26 participants attended the training consisting of the respective members of tender management committee, members of FDAs within Pyapon District, and members of ARFN. On the first day of the training, the participants were introduced to topics including; fishery management, ecosystem, connection between fishery and ecosystem, sustainability, 7 principles of EAFM, and facilitation skills. What facts should be included in EAFM plans, good co management plans and results, 5 steps to EAFM, and identification of Fishery Management Unit (FMU) were introduced and practiced during the second day of the training. The last day of the training chiefly focused on EAFM planning, identification of EAFM indicators and lastly a brief presentation on conflict management and resolution was given.

Detailed information on the EAFM Training can be seen at Annex 2.

2.1.5. Formation of Fishery Development Associations at Cluster & Township Level

In 2018, 28 Fishery Development Associations, at cluster and township levels, (11 Township Level FDAs and 17 cluster level FDAs by covering 107 villages) had been formed by ARFN through the technical support of NAG's Capacity Building Coordinators. In 2019, ARFN continued to support the organization of mass community meetings by identifying appropriate criteria for



cluster level FDA membership, and then moved for the formation of Township level Fishery Development Associations.

In 2019, the project extended its coverage to 19 Townships where the FDAs had been formed. During the reporting period 64 Fishery Development Associations (6 District Level FDAs - Pyapon, Maubin, Labutta, Hinthata, Pathein, and Myaung Mya); 19 Township level FDAs, and 39 Cluster level FDAs covering 185 villages) were formed.

Detailed information of FDA formation can be seen at Annex 3.

2.1.6. Township Level Working Groups formed for Area Extension

In 2018, three Township level working groups had been formed with the purpose of extending the ARFN network area, through collaboration with the ICAWR project. In 2019, 5 new working groups were formed. The 8 working groups now cover 8 townships; Ngapudaw, Nyaungdon, Wakhema, Kyaiklat, Hinthada, Ingapu, Einme and Lemyethna townships. Through the working groups, the project provided financial support for area extension, and connecting ARFN with the relevant township DoF.

2.1.7. Community resource conservation projects supported

With the objective of ensuring sustainable fishery resources and healthy ecosystems for the Ayeyarwaddy Delta Region, the ICAWR project aims to support community-led resource conservation activities. In 2018, the Project team had provided a total of 13 grants for implementing four mangrove conservation projects by FDAs in 5 villages of Labutta Township; one mangrove conservation project in Mawlamyinegyun Township and eight fish species conservation plans for 6 township project areas in Zalun Ma U Bin Danuphyu, Pantanaw Thabaung and Yeyi Townships.

During the first six months of 2019, the project team received 12 new proposals from Pantanaw Township, (8) and Danabyu Township (4). The proposals were desk-reviewed by the project team to assess their appropriateness in terms of; the potential for species conservation; the capacity of community associations, (including financial management capacity, operational capacity etc.); and the budget requested for fishery resource conservation. The Capacity Building Coordinator of the ICAWR Project collaborated with the ARFN to review the proposals, which included visits to the field areas to assess the ground situation, and to ascertain the feasibility of the proposals for implementation. Out of the 12 proposals, 11 grants for implementing fishery conservation projects were provided in March 2019.

In the extension period of the project from July to December 2019, the project received and provided grants to another 6 proposals for fish species conservation; 5 from Danuphyu Township and 1 from Nyaung Done Township. During the reporting period, the project received 18 proposals from fishery community organizations for conservation projects and provided 17 grants in total. Moreover, the fishery community organizations that had already received the grants and had been implementing the conservation projects, submitted another request of



financial aid in order to demarcate the Inns. In response, the project provided additional financial support to 28 conservation projects.

Detailed information of the Grant Aid for Community Resource Conservation Projects can be seen at Annex 4.

2.1.8. Supporting Fishery Resource Conservation related IECs for Co-management Areas

Disseminating reliable and accurate information is a key component of successful co-management. To this end, the project team developed fishery resources conservation related IECs including vinyl posters on Conservation Zones; Protection Zone Maps and the eradication of the invasive Amazon Sailfin Catfish; and then distributed these materials to target co-management organizations. The project team worked closely with the DoF on developing these vinyl posters, and collaborated with ARFN for the dissemination of the products in the targeted areas.

During December 2019, 1900 copies of co-management diary books were produced and disseminated through workshops and events to the fishery communities and government departments. These books were designed to include NAG's vision and mission; and background information about ARFN; its vision; all planned activities and the potential impacts of fishery co-management system; the causes of fishery resource decline, ecosystem degradation, the risks to human beings, and natural disasters. Photographs and cartoon illustrations were used to aid understanding. Important information on the fishery co-management system; the types of co-management systems; the systematic formation of co-management groups; the benefits of having co-management systems in fishing grounds; the challenges and constraints, and the roles of stakeholders was also included. Moreover, the project produced and disseminated 252 copies of Do's and Don'ts Vinyl (Rules to follow in Inns areas) to 19 townships.

The design of Co-management Diary Book and Vinyl can be seen at Annex 5.

2.1.9. DRR & Climate Change Awareness Training

On 29th - 30th April 2019, at the Myanmar Koe Hotel, Pathein, and the Program Manager of NAG Headquarters provided awareness training for 19 members of FDAs (15 males & 4 females) in the new townships. The purpose of this training was to; enhance knowledge on Climate Change Adaptation and Disaster Risk Management, (DRM); build CCA and DRM technical capacity and skills and; catalyze the implementation of Village Plans on Action for Disaster Risk Reduction and Management at the community' level, Disaster Risk Reduction & Climate Change. This training was accompanied by educating participants on disaster preparedness and mitigation measures aimed at reducing community and household vulnerability. Though the training, the participants received an understanding of the following steps in DRM planning:

- Analyzing and understanding community vulnerability;
- Analyzing and understanding the different types of Hazard and Level of Impacts;
- Participatory DRM Planning including mapping;
- Participatory Plan Implementation;



- Participatory Monitoring and Evaluation.

2.1.10. Business Plan Study Visits

During the reporting period, the project team conducted two Study Visits. On February 1st 2019, Women groups from Danuphyu and Zalun townships visited Kyite Latt Township, Ayeyarwaddy to study the processing process for preparing ready-to-eat dried fish products. The ICAWR Project team facilitated the study tour and the Danuphyu township DoF officer also participated in the study visit.

In Kyite Latt Township, 15 households in Kyite Latt make a traditional ready-to-eat product from snakeheads (*Channa spp.*). Processing involves a complicated series of steps involving splitting, gutting, salting and drying, grilling the fish over charcoal, beating with wooden hammers to soften the flesh, before grilling, soaking in oil overnight, and smoking, before finally packing the product as whole fish or as flakes for human consumption. This product has a niche market amongst consumers in Yangon and Mandalay and the product fetches a very attractive price in urban markets. Kyite Latt is famous for making this product, imitators elsewhere can neither make the product in the same way, nor have the advantage of the brand value that 'Made in Kyite Latt' carries. However, the limited supply of snakeheads is a constraint for further expansion. Other constraints for replication of this product include: the size of the demand (currently there is only a small niche market for the product); the elaborate and precise manufacturing/processing techniques used, that are difficult to replicate.

From 24th February 2019 to 1st March 2019, the project team organized a second study tour for women groups' members and fishery communities' leaders, to study community-led SME programs in Myeik Township, Tanintharyi Region. During this visit, the study team met with the entrepreneurs of the Dried Fish Production Business and carried out detailed discussions on the process of making dried fish.

The study team visited communities specializing in the production of single-use biodegradable plates, bowls, spoons and fork, using the bark of Areca Palms. The participants studied the business plans and operation systems, and discussed whether it had potential to introduce to Ayeyarwaddy through the ICAWR project area.

After the field study visit, the study team organized a review meeting at Mawlamyine Township, Mon State, in collaboration with GoM Project Team. Through the review meeting, the study team members discussed SME business possibilities in their related areas, through using SWOT analysis. The GoM Project Team shared the experiences of Ready to Eat – Snakehead Dried Fish SME businesses under Thaton Township FDA. A business plan for Ayeyarwaddy, including a detailed budget plan and activities was developed by the members of study visit, with technical support of ICAWR and GoM Project Team members.

2.1.11. Snakehead Dried Fish Production Training

As the women groups planned to implement Snakehead Dried Fish Production Businesses in their areas, the, ICAWR project team facilitated training to 31 members from women groups in 5



townships, by hiring a local expert from the Kyeik Latt Business Center. The one-week training was organized from 17th to 23rd February 2019, at Ah Kyaw village, Danubyu Township. The training included both theoretical and practical sessions.

2.1.12. Grant Supports on Community Business Plans

The ICAWR project supports the business planning and livelihood development of fishing communities, in order to enhance their access to alternative income opportunities, and to help them reduce dependence on natural resources. In 2018, the project team had conducted business identification and planning assessments to understand potential new business opportunities. During 2018, the project team received 2 business plan proposals from Danuphyu Township and Zalun Township. The project team reviewed the business plans by assessing their appropriateness in terms of; the reliability of raw materials; market demand; and benefits to women groups.

In February 2019, four business plans were approved for receiving grants. Since then, the project team has regularly monitored the plans, by visiting the areas in order to support the implementation process.

The types of SMEs and sizes of grants are as following (combining 2018 & 2019) –

Table 1 - Types of SMEs

Sr.	Township	Village Name	Type of SME	Amount (MMK)
1	Labutta	Ah Yar Taw	Shrimp Paste	15,793,000
2	Thabaung	Kyon Ta Dun	Fish Paste and Fish Sauce	10,260,000
3	Pantanaw	Mwayt Pin	Thin Mat	13,557,600
4	Zalun	Pauk Kone	Dried Snakehead	7,910,000
5	Danubyu	Ak Kyaw	Dried Snakehead (Ready to Eat)	8,570,000
Total				56,090,600

In December 2019, the Fishery Value Chain Advisor conducted a mission trip to Ayeyarwaddy to review the SME programs in Dedaye, Danu Phyu, Pantanaw and Zalun Townships. On 11 December 2019, he made his first visit to Ban Kyun Village in Dedaye Township, where the SME focusing on value added dried Bombay-duck production is being operated. The SME established contacts with local retailers in Mandalay, Yangon-Shwe Pauk Kan, Pyi, Natalin, and Ywar Thar Gyi markets, and has been supplying fish directly for retail sale. So far, 3 cycles of operations have been undertaken, the product from the third cycle in the process of being marketed at the time of the review.

On 15 December, the Value Chain Advisor visited Pauk Kone village in Zalun Township and A Kyaw Village in Danuphyu township, where both SME groups are supported for producing ready-to-eat snakehead (R2E) SMEs. In Pauk Kone Village, the business activity started in March 2019 – it was first reviewed by the FVC Advisor in April – but has remained in limbo until now as the snakehead fishing season ended soon after the first couple of cycles and there has been no activity over the last eight months. Overall, 600 viss of fresh fish processed till now, producing 72 viss of dried product (@conversion rate: 10:1.2). A new season is just beginning, and 10 viss of fresh fish were under process at the time of the review. In A Kyaw village, 12 members are involved in producing ready-to-eat snakehead (R2E) product ('Kyite Latt product') since Feb 2019. The SME



product is sold to urban markets in Yangon, Hinthada, and Mandalay; small quantities had even found their way to Singapore (mainly through relatives sending small quantities abroad).

On 16 December, the Value Chain Specialist made his last review trip to Mwe Pin village in Pantanaw Township, where a total of 65 members are involved in mat weaving, which the project has supported since February 2019. Women in the SME group used to take the raw material on loan from traders in Pantanaw and sold the semi-finished goods to the same traders at a fixed price. With project support, they are able to buy the raw material on their own and sell to whoever is offering the best price.

In order to support these SME programs, Capacity Building Coordinators (CBCs) of the project helped develop SME management plans for the groups, provided capacity building training and other required assistance, before and during the operations. The CBCs regularly made monitoring visits to the SME villages, providing assistance, recommendations, and sometimes helped producers look for new market opportunities.

On 29 November 2019, with the intention of supporting sustainable community-based organizations through generating market opportunities, the Ancient Bagan Bazaar was organized in Bagan by NAG, in collaboration with the Innovative Resource Institute, Pomelo, Thante Hotel (Nyaung Oo), AUGUSTINE and other organizations. Out of 40 stalls at the event NAG, managed a stall selling products from different project areas; Ayeyarwaddy, Saging, and Yangon. Products from the ICAWR project SME groups; fish paste products from Labutta Township, snakehead dried fish products from Dedaye Township, woven mat products from Pantanaw Township and snakehead dried fish products from Danuphyu Township, were sold at the event valued at 400,000 MMK at two-days selling.

Profit Margin Analysis is done for Thin Mat Production and the rest SMEs take a season for collection of Raw Materials such as fish and time for preservation. The profit calculation for them will be analyze when their business' production is ready for marketing.

Profit Analysis Result of Thin Mat Production SME can be seen at Annex 27.

Detailed information and recommendations for the SME programs can be seen at Annex 6.

2.1.13. Nutrition Training provided to members of ARFN and FDAs from 13 Townships

In 2018, the project team had organized two Nutrition Training courses, the 1st training collaborated with LEARN Project (implemented by Save the Children) and the 2nd training was conducted by Nutrition Consultant and TV celebrity (Dr. Khin Mar Cho). A series of nutrition campaigns was carried out in 14 areas covering the 11 townships of the project area with the following objectives –

- to gain knowledge of the nutrients that can be obtained from fish and local vegetables
- to understand the importance nutrition for small scale fisher households and communities.



During the 2019 reporting period, ARFN with the supports of ICAWR Project's Capacity Building Coordinator organized the nutrition campaigns at 2 different villages such as Min Ta Su village from Pantanaw Township and Zin Ywal Gyi village from Labbuta Township in March 2019 and shared the knowledge of how to prepare and cook healthy nutritious food to the community. During the awareness campaign, participants were encouraged to involve games and Question and Answer sessions for quick understanding of nutrition concepts and to encourage active participation.

2.1.14. Study on Kyar Phong Fishery Workers and Owners conducted in Pyapon and Ye Townships

A first study of the Kyar Phong (Raft) Fishery was conducted from 20th - 30th September 2018 in Yay township of Mon State and Pyapon Township of Ayeyarwaddy Region. Partly as a result of this work, there is a growing awareness of, and interest in the widespread labour mistreatment, abuses and dangers prevalent in this type of fishery.

NAG conducted a second study at the end of the Kyar Phong season, (7th - 10th May 2019 - Pyapon township, and 14th - 15th May Yay Township of Mon State). The NAG Research Officer and Research Coordinator led the study and interns from NAG Research Team and Research Assistants collected data and information. The study aimed; to understand how the kyar phong fisheries operate in Pyapon and Yay townships; propose how the environmental, social and economic dimensions of this fishery could be enhanced to optimise benefits, including the well-being of migrant fishers and fish workers; and to explore the potential for establishing a co-management framework for Kyar Phong fisheries, decent work and safety at sea. This would draw on international guidelines and instruments such as the FAO Code of Conduct for Responsible Fisheries, FAO's Voluntary Tenure and Small-scale Fisher Guidelines, as well as ILO instruments in relation to decent work.

The study used qualitative methods; observation and semi-structured interviews for data collection. The participants were selected with 'Purposive Sampling' method. Firstly, the team visited 5 villages (Khar Pyat, Nauk Mee, Daw Nyein, Sat Wa and A Phong villages) in Pyapon township and interviewed 26 raft workers, with the full support of the Kyar Phong Association and the village tract administrators. The team also visited A Sin Village, Ah Baw Kyar Tan and Zee Phyu Thaug villages of Yay Township in Mon State with the help of Kyar Phong Association and the Department of Fishery from Yay Township, and collected data from 32 participants, who are involved in Kyar Phong Fishery and those who work as raft labor. The findings from this study were used for developing a NAG initiative that focuses on safeguarding decent work in the Kyar Phong Fishery in Myanmar and preparation of Articles for International Audiences.

On 23rd December 2019, a sharing workshop on findings of the studies - Kyar Phaung Study, Political Economy Analysis (PEA), and Fishery Stakeholder Workshops done by NAG was organized in Pathein where a total number of 29 participants (M-25 and F-4) including the members of ARFN and FDAs from different townships, and NAG staff attended the workshop. The Senior Program Officer and Research Officer shared the findings of the PEA to participants by stating the perspectives and information assessed through the field level interviews which clearly suggested that the new law had greatly contributed to the positive outcomes and created positive



interest groups amongst fishers in particular. As intended, the presentations and discussions allowed for a deeper understanding of the fishery situation in Ayeyarwaddy. The presentation on findings broke down the data to township by township, and village by village. Some case studies were also presented including the studies on Kyar Phaung. During the workshop, participants actively participated and raised counter questions and good feedback on the presentations.

Detailed information of research results sharing event can be seen at Annex 7.

2.1.15. Visit by International Fisheries and Co-management (IFCM) specialist

The International Fisheries and Co-management (IFCM) Specialist's task is to assist NAG in identifying and coordinating the research needed for Outcome 1: Increased participation of communities in fisheries co-management. To this end, he has so far undertaken three field visits: a scoping visit along with the Fisheries Value Chain Consultant in July 2017; a follow up visit in November 2017; and he conducted a follow up visit in March 2018. The objectives of his field visit in April 2019 were to

- Review and advise on the fisheries co-management implementation process in ICAWR Project areas in Ayeyarwaddy Region (both existing and new targeted project areas);
- Review and advise on existing fishery related information collection system, further improvement and the research plan;
- Review and advise on existing co-management M&E System

The IFCM and his team met with ARFN members, Fishers Groups and FDA Leaders from the co-management implementing areas. From 3rd - 4th April 2019 the IFCM visited Akyaw village co-management area, Danuphyu Township, Tat Sate village fishery co-management area, Yay Kyi Township, Min Ta Su village, Pantanaw Township and Kadat village fishery co-management area, Zalun Township. The consultant studied the fish catch situation, and the plans to implement a fishery resource conservation zone; implementing plans and co-management plans for conservation areas by conservation committee; related fishery records and documents; and the plans for the 2019 inn/tender season.

2.1.16. Visit by Gender Value Chain Specialist

On 6th April to 8th April, 2020 a Business Plan review workshop in Pathein, was organized by the Value Chain Consultant, with 15 participants from SME implementing areas attending. The workshop aimed to assess the implementation process of the five business plans. Issues included; justification for the project; the people involved in fish resources; processing and technology; markets; institutional arrangements; financial viability; and cross-cutting themes.

The mat weaving businesses from Mwe Pin village (Pantanaw Township) are reputed for their quality. This seems to be a very successful initiative. The fish paste production business from Kyone Ta Tone village (Thar Paung Township) would seem to have potential but fisher knowledge is limited. The business for dried fish production (ready to eat snake head dried fish product) have two fundamental challenges- acquiring a reliable supply and market demand. Profit Margin Analysis of this products can be seen at Annex 27.



After the two-day workshop, the Consultant and the project staff went to Zalun to assess Dried Fish processing on 8th April 2019, and better practices for implementing their business, were suggested.

On 8th December 2019, the Fishery Value Chain Advisor reviewed the load tracking study undertaken in two areas – Gulf of Mottama and Ayeyarwaddy Delta throughout the year – and involving the NAG’s research team and faculty and students of the Geography Department from Bago University. The load-tracking exercise was initiated as a way to obtain first-hand information on the movement of fresh fish along the value chain from the point of capture until it reached the consumer, in some distant city. The purpose of load tracking is to follow the fish along the different stages of its movement from the fishing boat to the village collector, from the village collector to the township trader, the township trader to the urban wholesaler, the wholesaler to the retailer, and on to the consumer. At each stage, it was intended to assess three major aspects – loss (if any) in quality, value addition, and price mark-ups – along with the people and processes, involved at each and every stage.

Activity plans were drawn up in June 2019 and the study was launched in July 2019- to cover a period of 6-8 months of data collection. The data collection checklists were field-tested and modified to suit the local conditions, the field research team was trained and helped to orient themselves to the data collection techniques, and the necessary preparations were undertaken at the selected villages to obtain the necessary data.

Detailed information and recommendations of Gender Value Chain Specialist can be seen at Annex 8.

2.2. Outcome 2- Improved legal framework supporting community access and conservation of resources

2.2.1. Enactment of Ayeyarwaddy Regional Freshwater Fishery By-Law

The Ayeyarwaddy Freshwater Fisheries By-Law was enacted in 10th April 2019. The Minister of Agriculture, Livestock, Natural Resources and Environmental Conservation of Ayeyawady Region has enacted these By laws with approval of Ayeyarwaddy Region Government by power mandated in accordance with, Article 78 Sub article (a) of the 2018 Ayeyawady Region Fresh Water Fisheries Law.

The new law contains a section on community fishery organizations, providing the long sought after legal basis for community fisheries co-management. The qualification for establishment of Community Fishery Association, Registration and Dissolution mentioned in By-Law’s Chapter 13 (a). The fishers need to establish a Community Fisheries Association within the community and develop community fisheries bylaws.

A Two-day Ayeyarwaddy Fishery Partnership workshop was organized on the 30-31 October 2019, where 19 Members of Parliament, 2 representatives from Regional Department of Fishery, 4 representatives from District Department of Fishery, 6 representatives from Township Department of Fishery, 21 members of ARFN, 2 from IRI and ICAWR project staff attended. The workshop aimed to develop methodologies and activity plans together with stakeholders to study



the initial impacts of the Ayeyarwaddy Freshwater Fishery Law (2018), and the Ayeyarwaddy Freshwater Fishery By-laws (2019). During the workshop the progress of the fishery sector at the community level was explained by the Regional Director of DoF, including the challenges and constraints to the systematic formation of co-management groups and the challenges to fishery resource conservation. The findings on the Political Economy Analysis (PEA) in Ayeyarwaddy were also presented by the NAG Fishery Advisor. As the main part of the workshop, the workshop participants discussed on research questions and developing the sampling frame as outlined.

Detailed information on AFP workshop can be seen at Annex 9.

2.2.2. By Law Awareness raising meetings conducted in 19 Townships

Fishery By-Law Awareness meetings were carried out in collaboration with DoF, in two townships in the project area. The first meeting took place at Danuphyu Township on 8th June 2019 and involved 244 male and 6 female participants including fishers and FDA members from 59 villages in Danuphyu Township, officials from Department of Fisheries, General Administration Department and Officials from related departments, and members from National League for Democracy, participated in the meeting. The second meeting was organized in Ingapu Township on 25th June 2019 and involved 139 male and 7 female participants. The participants were officials from Department of Fisheries and General Administration Department and fishers and members of Fisher Development Association from 42 villages within Ingapu Township.

The objectives of these meetings were to impart knowledge on the new fishery by law, current fishery revenue collection systems, and the process and requirements to form Community Fisher Association and Township Fisheries Supervising Committees at Cluster and Township Levels. The meetings also had the implicit objective of trying to foster a closer relationship between the Department of Fishery and community actors, which will be important for collaboration in future fishery sector development programs.

During the meeting, two experienced and well-respected representatives from Community Fisheries Associations were elected by consensus of participants. These two persons will act as Fisher group representatives on the Township Fisheries Supervising Committee.

The project team continued carrying out By-Law awareness meetings in 17 townships of the project area during July to October 2019. On 2nd July, the meeting was carried out in Thabaung Township and involved 87 community representatives - 73 male and 14 female participants; and 4 male representatives from Department of Fishery; covering a total of 5 villages. On 5th July 2020, a meeting was carried out in Mawlamyaingyun Township, involving 99 community representatives - 93 male and 6 female participants; and 4 male representatives from Department of Fishery; covering 6 villages. On 6th July 2020, a meeting was carried out in Labutta Township, involving 126 community representatives - 96 male and 30 female participants; and 12 males and 1 female representatives from Government Departments such as Department of Fishery, General Administrative Departments, Members of Parliament and such; covering 7 villages. On 10th July 2020, a meeting was carried out in Pantanaw Township and involved 121 community representatives - 120 males and 1 female participants, and 10 male and 3 female representatives from different government departments; covering 46 villages.



On 26th July 2020, a meeting was carried out in Ngapudaw Township, involving 96 community representatives – 78 male and 18 female participants, and 1 male representative from Department of Fishery; covering 10 villages. On 29th July, a meeting was carried out in Zalun Township, involving 101 community representatives – 96 male and 5 female participants, and 4 male and 2 female representatives from government departments; covering 34 villages. On 4th August, a meeting was carried out in Nyaungdon Township, involving 114 community representatives – 105 male and 9 female participants, and 5 males and 1 female representative from government department; covering 28 villages. On 7th August, 2020 a meeting was carried out in Kyaiklatt Township, involving 136 community representatives – 110 male and 26 female participants, and 1 male representative from DoF; covering 11 villages.

By-law awareness meetings were also carried out in other townships; Bogale, Lemyethna, Hinthada, Yeyi, Maubin, Einme, Pyapon, Dedaye and Wakhema in collaboration with government officials, covering a total 239 villages in 17 townships during July to October 2019–1362 male and 187 female representatives from community received the awareness and where 76 male and 20 female government officials participated.

Table 2 - By-Law Awareness Meetings

Sr	Township	Community		Gov/ Public		NAG Staff		No. of Villages	Date
		M	F	M	F	M	F		
1	Thabaung	73	14	4	0	0	1	5	07/02/19
2	Mawlamyinegyun	93	6	4	0	2	0	6	07/05/19
3	Labutta	96	30	12	1	0	1	7	07/06/19
4	Pantanaw	120	1	10	3	0	0	46	07/10/19
5	Ngapudaw	78	18	1	0	4	1	10	07/26/19
6	Zalun	96	5	4	2	4	0	34	07/29/19
7	Nyaungdon	105	9	5	1	1	0	28	08/04/19
8	Kyaiklat	110	26	1	0	2	0	11	08/07/19
9	Bogale	56	16	1	0	0	0	6	10/03/19
10	Lemyethna	82	6	7	4	1	1	14	10/03/19
11	Hinthada	42	0	11	9	0	0	21	10/04/19
12	Yeyi	49	12	6	0	0	0	9	10/06/19
13	Maubin	125	0	5	0	0	0	19	10/07/19
14	Einme	117	0	1	0	0	0	6	10/07/19
15	Pyapon, Dedaye	58	36	2	0	0	0	6	10/14/19
16	Wakema	62	8	2	0	0	0	11	10/21/19
Total		1362	187	76	20	14	4	239	

Detailed information on By-law awareness activities reports can be seen at Annex 10.

2.2.3. IECs for awareness raising on fishery law produced and distributed.

The ICAWR project was active in promoting information related to relevant fishery laws and resource conservation programs, using a range of dissemination pathways and means such as transparent boards and vinyl sheets. The project team developed and provided 45 set of vinyl posters to conservation areas and co-management implementing areas, highlighting the



acceptable and unacceptable practices for sustainable utilization of the fishery resources, including photographs of legal fishing gears.

The project team engaged in detailed discussions with the DOF during the design phase of the vinyl posters, in order to determine the key messages required, and to identify appropriate ways to deliver the messages to the communities. This was followed by detailed discussions with the ARFN to decide on suitable locations for setting up of the vinyl boards and their maintenance requirements.

In 2019, as the Ayeyarwaddy Freshwater Fishery By-law was passed through parliament, the government happened to have it printed and disseminated; though the budget for it was not planned, NAG was requested by the Regional Parliament to have the by-law printed. In August 2019, following this request, NAG produced 3,000 copies of Ayeyarwaddy Freshwater Fishery By-law and shared it with the Regional Government, Regional Parliament, Regional Department of Fishery, other related government departments, and members of ARFN. In addition, copies of By-law have been disseminated through the By-law awareness meetings in project townships.

The design of By-law can be seen at Annex 11.

2.2.4. Fishery Revenue/ Taxation pilots initiated at project targeted areas

The collection of revenue from Ayeyarwaddy's freshwater fisheries is important for both the Regional and Union Governments. Paradoxically, it is also important for co-management to succeed as it allows for exclusive user rights by the groups holding the tenders or leases. Understanding the existing fishery revenue collection system and practices in the fishery sector are critically important for the project. This is because a key component of the proposed implementation of the community co-management system involves the FDAs providing support to the DoF on revenue collection. A community led fisheries revenue collection plan could develop through the collaboration of DoF and fishers and the plan intended to develop a stronger and more systematic fishery taxation system led by fishers, to improve the accountability and responsibilities of fishers and to reduce the role of Department of fisheries in revenue collection process.

Although a Region-wide community-led local revenue collection system could not be initiated during the reporting period, from February 2019, the project, has been continuing its pilots in three townships. The Community-led revenue collection system is being conducted in selected areas where FDAs are functioning well and can be considered trustworthy. After receiving approval from the Regional Government and DoF to implement the proposed pilots, the selected FDAs develop appropriate guidelines for fishery revenue collection according to their operational area, and the FDAs then implementing the system with backstopping support from the Project and the DoF.

During the reporting period, the pilot program of community-led local revenue collection system was initiated in the co-management implementing areas of Yay Kyi, Labutta, Mawlamyngyun and Danuphyu townships and members of village and township level Fisher Development Association and township DoF Officer participated in the associated meeting. The meetings were conducted



in Labutta Township on 16th February 2019 with total 19 participants (16 Male and 3 Female) from Ayardaw village, Mawlamyinyun Township on 22nd March 2019 with 19 participants (15 Male and 4 Female) from Myint Ka Kone village, Danuphyu Township on 26th March 2019 with 18 participants (18 Male) from A Kyaw village and the last meeting was conducted in Yaykyi Township on 27th March 2019 with 20 participants (14 Male and 6 Female) from Tat Seik Myit Kyoe village.

The meetings found out the numbers of fishers differ from the registered numbers at DoF and existing numbers in the community, which has led to the less revenue collected. Later on, FDA had the meetings with DoF and supported on updating the no. of fishers. Through the community led revenue system, the practices of collective actions in the areas of decision making, collective saving and resource management are dramatically improved among the fishery communities and it leads the easier ways to access fishing grounds in future without high dependency on others.

2.3. Outcome 3- Improved performance of Government Institutions

2.3.1. Upgrading of the Pyapon Fishery Training Center

After lengthy discussions with the Union DoF regarding the Pyapon Fishery Training School, the renovation work began on 7th April 2019. Whilst the construction process has been operating, the program team hired a third party, (D&L Engineering Company) to monitor the construction process and to check the quality of the work. The company has previous quality control and monitoring experience in Pyapon Township. D&L has made regular monitoring visits to the construction site. The Project Capacity Building Coordinator has also monitored progress.

On the 3rd of May 2019, an onsite meeting was held to discuss progress on upgrading and renovation of the fishery training school. There were total 14 participants including; representatives from the project, DoF, the third party consultant team and the construction company. Discussions centered on control and the quality of the building work; the completion status within the contract timeframe.

A land dispute between the Special Police and the Fishery Training School was encountered during the construction period, which delayed the building work but this was resolved at the Meeting. In late June, the Zayar Myintmo Company reported that construction process had been completed but inspection by D&L found that only 80% of the construction had been finished. Finally, D&L reported on 27th August 2019, that construction of the Pyapon Fishery Training Center had been 100% completed, under the 5 components; Steel Structure, School Renovation, Chain link fencing work, Student Hostel Renovation, and Bathroom & Toilet. D&L had provided the Completion Certificate for upgrading of the Pyapon Fishery Training Center.

Completion Certificate of Fishery Training Center Construction can be seen at Annex 12.

2.3.2. Fishery Training School's Operational Plan workshop was conducted and Plan was developed



On the 21st and 22nd of February 2019, a workshop on the fishery training school's operational planning was conducted at Pyapon Fishery Training School, with the intention of developing a better operational plan. The specific objectives were as follows;

- To provide the capacity building trainings and fishery related technologies to the fishers and fishery staff within the region in order for the fishery sectors to sustainably develop.
- To conduct the resource conservation awareness activities with the intention of being able to access the fishery resources sustainably and constantly.
- To integrate and coordinate with the national/international partner organizations and universities to conduct the fishery related research

Respective stakeholders from the Department of Fisheries in Ayeyarwaddy Region and project staff participated in the workshop.

On the first day, the participants were divided into groups to discuss what topics should be taught at the fishery training school, finally producing an agreement on what subjects should be taught at the fishery training school. On the second day, participants discussed networking with the other respective departments in order to strengthen the fishery training school, and discussed the budget from the Regional Government, required in order for the fishery training school to function and be operationalized. A draft Operational Manual for the fisher training school was developed during the 2-day workshop, and reviewed by NAG Senior Officers in October 2019.

As upgrading of the Pyapon Fishery training center was completely finished on the 27th August 2019, the handover workshop will be conducted in January 2020, including the review of Operation Plan.

The Fishery Training School Operation Plan can be seen at Annex 13.

2.3.3. Value Chain Curriculum and Small Scale Aquaculture Manual Developed

On 18th September 2018, NAG had a meeting with Union DoF and the Head of Research and Development Department, to support the Fishery Curriculum developing process. Since then, NAG has tried to develop two fishery related curricula; Value Chains and Small Scale Aquaculture.

The Value Chain Manual development process has been in progress since May 2019, (with the support of International Fishery Value Chain Advisor) and the Fishery Value Chain Advisor organized a meeting with project staff in Yangon and developed the indicative framework of contents. Since then, the VC consultant worked with experts in India before the write-shop organized in September 2019. From 4th to 9th September 2019 a NAG team comprised of 10 people including 2 Master candidates and 1 Professor from the University of Bago, undertook an exposure trip to India to participate in the Value Chain Manual Write-shop and study the SME projects operating in community groups. The NAG team met with experts during the workshop and received presentations on each content developed by experts, before providing Myanmar context to individual chapters. The Indian experts continued working on secondary data collection of relevant literature (published, unpublished, and online) on different topics during October 2019.



The first draft of Value Chain Manual was prepared in November 2019, based on project documentation, secondary literature, and expert advice. On 13th December 2019, a review meeting on the draft Value Chain Manual was organized at the Institute of Fisheries Technology (IFT) in Yangon, where invited guests from IFT, DoF and International Trade Center and NAG representatives attended and discussed the materials for contextual relevance, feedback, and revision of the manual. The Fishery Value Chain Advisor took note of the feedback during the meeting and will finalize the Value Chain Manual in January 2020.

Three Small Scale Aquaculture Manuals have been developed for Freshwater, Blackish Water and the Saline Water Zone. The manuals have already been finalized in English and Burmese, and will be printed in January-February 2020

Fishery Curricula and Manuals can be seen at Annex 14.

2.3.4. Fishery Related Training provided to DoF Staff at Pyapon Fishery School

Despite some recent reforms, the technical capacity and well-intentioned motivation of government institutional staff remains weak. The movement towards co-management of fisheries in Myanmar requires strong and proactive institutions and organizations capable of implementing natural resources management policies and plans that both benefit fishing communities and protect the environment.

In order to provide opportunities to build the capacity of DoF staff, the ICAWR project planned to provide Training of Trainers (ToT) Courses in fisheries co-management, and in the Essential-Ecosystem Approach to Fisheries Management, (E-EAFm). The project has conducted meetings with the Headmaster of the Pyapon Fishery School, who has agreed to provide short course training in fishery related topics to DoF staff, fishers and other stakeholders.

NAG has an ambitious plan for short-course training courses, covering 12 topics; Computer Basics for GIS and GPS; Induced Fish Breeding; Good Aquaculture Practice; Safety at Sea and Fishing Gear Preparation; Water Quality Management & Fish Disease Control; Postharvest (Making Fish Sauce, Salty fish, Dry Fish & Shrimp) Implementation of GMP, SSOP and HACCP for Fish Processing Plants; Fishery Resource Conservation; Financial Management; Fishery Livelihood Development; Finfish Aquaculture; and Prawn and Crab Aquaculture.

Short-course training was held on Fresh & Marine Shrimp and Mud Crab Production and Grow Out Culture (4th February 2019 to 7th February 2019) by Daw Than Than Aye (Deputy Director General from Department of Aquaculture) and Daw Mya Mya Sint (Trainer from Shrimp Hatchery Station, Kyauktan). 16 DoF staff (7 Male and 9 Female), 4 Male Staff from NAG and 3 Observers (2 Male and 1 Female) participated in the training course. The course aimed to improve and upgrade the knowledge and skills of staff from Department of Fisheries, on the breeding and rearing of Mud crabs and shrimp. The course was implemented through PowerPoint and Video Slide Show Presentations and demonstrations by using live specimens. A post course test was incorporated into the training.

2.3.5. Developing a Co-management M&E System and Installation



The development of a co-management M&E system is an important step towards improved co-management of wetland resources in Ayeyarwaddy. From March 4 to 9, 2019, the NAG M&E team provided 29 DoF staff from 26 Townships with training on basic M&E concepts and how to use Excel worksheets. The Pathein-based training specifically focused on the basic concepts of monitoring and evaluation, and developing a database for the co-management system in Ayeyarwaddy. From March and June 2019, the indicators for the co-management M&E system were developed by the NAG M&E and project team before being reviewed by an International Consultant.

On June 11 -12 2019, following the selection of 6 pilot villages, the M&E team organized training in Pathein, on the Co-management M&E system. Since the co-management M&E system was implemented by the fishers themselves, the indicators developed by NAG were reviewed and validated by the participants, during the training. On the 13th June 2019, a pilot data collection exercise was conducted by participants in 3 villages. They used the formats developed during the training to collect data. The following day, they presented on what they had found in terms of strengths and weaknesses (of the formats as well as the fishery groups.) The formats were reviewed and modified. Through the pilot data collection exercise, the fishery representatives gained useful insights into systematic co-management. For the 6 pilot villages, one M&E focal point was selected and the data collection practice was implemented by the focal person who reported to the Project Team, on a monthly basis. By working on this program, communities will understand the characteristic of Fishery Co-management and they can analyze themselves to improve their performance for effective implementation of fishery co-management. It is aiming for sustainability purpose and the communities will have the sense of ownership to assess their performance and improvement of resources through fishery co-management. Project is facilitating in the first stage of data collection with very simple tools/ formats and later on it will be led by communities.

On 5th to 6th November 2019, a review workshop on the co-management M&E system was organized – on the first day in Pathein and on the second day in A Kyaw Village. A total of 19 participants – 16 male and 3 female in Pathein and a total 14 participants – 10 male and 4 female in A Kyaw village participated. The first day of the workshop focused on reviewing formats provided to M&E focal points from 6 pilot villages and on sharing experiences of data collection as well as record keeping, and suggestions were passed on to participants. On the second day of the workshop organized in A Kyaw village, participants met with members of FDA to discuss their future plans, business plans and challenges, checked the documents kept in the group, interviewed the direct and indirect beneficiaries as well as fish collectors, and then observed the conservation zones. Finally, a review meeting on the workshop and the field work was organized in Pantanaw Township.

The Co-management M&E System Review Workshop Report can be seen at Annex 15.

2.4. Outcome 4- Establishing Effective Fisheries Partnerships & Networks

2.4.1. Networks & Partnerships - ARFN & FDA Meetings



From January to June 2019, ARFN organized 4 meetings in the Regional capital, Patheingyi. The Township Level FDAs organized 11 meetings in 11 townships, and District level FDAs organized 7 meetings in each of the 6 Districts (twice in Pyawbwe District). In 2018, township level FDAs organized monthly meetings but starting from February 2019, the project team decided to organize District Level FDAs' quarterly meetings. Regular sharing of FDA and ARFN progress and problem-solving through collective actions, were carried out under the facilitation of the Project. District level FDA meetings are now organized on a quarterly basis, where the issues arising at the township level FDAs, are taken up for discussion and for collective resolution. From June 2019, ARFN meetings are being organized on a quarterly basis instead of monthly basis.

During August and September 2019, 2 ARFN quarterly meetings were organized in Patheingyi, where a total of 21 male and 1 female participants representing the 18 townships, attended and presented the activities being implemented in each township, and discussed future plans. From August to December, District level FDA meetings were organized in different townships, with the average participation of 18 people in each meeting, covering 36 townships, where they presented and discussed the challenges and constraints of fishers and sought to find collective solutions.

2.4.2. Co-management Plan Review and ToT Training

In order to ensure effective community participation in the co-management process, the ICAWR project team facilitated the FDAs and ARFNs to undertake participatory reviews of their existing co-management arrangements by organizing training sessions that had strong participation from fisheries representatives in the targeted co-management zones. Training, for the 32 participants (Male 27, Female 5), largely from FDAs and cluster leaders of co-management zones, was organized at the KMSS Center, Patheingyi Township on 16th, -18th June 2019. One day was set aside for field visits.

The first day of the training focused on critical issues and constraints facing the implementation of existing co-management plans. The participants were encouraged to review their existing co-management plans for each fishing zone and the areas which needed to be developed, revised and modified and mapped out.

On the second day, the Training focused on natural resources and co-management, covering; different types of resources, climate change trends; root causes of resource decline; impacts of decline on human well-being; and appropriate systems and approaches to address resource depletion. In addition, the respective roles and responsibilities of fishery communities and government agencies in co-managing the fishery resources and developing step-by-step actions needed to implement the fishery co-management plans successfully, was highlighted.

During the third day, the participants visited Ah Kyaw Village, in Danubyu Township and a meeting was held with the participation of the local fishery communities' members. At the meeting, the participants shared their knowledge of resource co-management. At the end of day 3, the participants developed a trip plan and agenda for mobile awareness raising programs in their respected areas, in collaboration with NAG's Capacity Building Coordinators. The community level co-management awareness activities by NAG's ToT team was completed during the reporting period.



2.4.3 Networks & Partnerships - Media Training provided to ARFN and FDAs;

From 10th -13th June 2019, a capacity strengthening media training was provided by the Project to 19 ARFN and FDA participants (Male 17, Female 2) at the Myanmar Koe Hotel, Patheingyi. The training was provided by an external consultant, U Ye Yint Tun; Journalist of ‘Than Daw Sint Journal’ in collaboration with U Ko Ko Naing; Communication Associate from NAG Headquarters. The participants were instructed on the roles of media, (i.e. to inform the public, to entertain the public, to convey information from the government to the public and vice versa, to seek the truth and report it accurately, and to be the voice of the voiceless). The participants were also taught to understand the definition of news such as; unusual; timeliness; impact; prominence; proximity or local angle; conflict; and usefulness. Examples of human and non-human sources of news were explored through brainstorming, and “Story” and “Article” writing session were carried out, practically and theoretically. During the training, participants were encouraged to write their own news stories on different topics including; The difficulties of the DoF in the Fishery Sector, Environmental Conservation, the role of FDA, and Experiences of Women led SMEs. Field visits to the project areas enabled the trainees to gather information on these topics. The stories and articles were reviewed by the trainers and good practices and styles of writing were recommended.

2.4.4. Networks & Partnerships – Participated at Fishery Co-management Stakeholder Forum

The Project is working to strengthen experience-sharing practices and mechanisms amongst fishery associations in different regions and states. To this end, NAG and leaders of ARFN participated in a Fishery Co-management Stakeholder Forum that was organized by Danida, together with DoF at Lotte Hotel, Yangon from 20th - 21st June 2019. The forum concentrated on the existing experiences and on-going project initiatives in co-management of natural resources in Myanmar, including forests and land, but with a special focus on fisheries. It is understood that various organizations are currently working on compiling guidelines for the facilitation of community-based co-management of natural resources and/or fisheries. In view of the need for the development of a regulatory framework for fisheries co-management corresponding to the up-coming new Marine Fisheries Law, the Department of Fisheries is looking at streamlining good practice in institution building for fisheries co-management and fisheries management planning with local communities.

By joining this forum, NAG and ARFN members had opportunities to:

- Share and discuss experiences and challenges on community-based management and the co-management of natural resources in Myanmar;
- Explore legal and regulatory conditions required for engagement of coastal communities into co-management arrangements;
- Understand lessons learnt from (Fisheries) Co-management initiatives in Myanmar and how these may be useful to the DOF approach and tools (steps) for:
 - Institution building for co-management, both at community and DOF levels;
 - Community Fisheries Area delineation and Co-Management Planning by local fisher organizations;



- Discuss the possibility of establishing a Technical Support Group for the development of guidelines for fisheries co-management facilitation

At the end of the workshop, ARFN leaders and NAG gained –

- A common understanding of the scope of fisheries co-management;
- A better understanding of the community-based fisheries and co-management initiatives, methods and tools that work for co-management facilitation in Myanmar;
- An understanding of key ideas for formulation of a regulatory framework explored;
- Opportunities for the establishment of Technical Support Group for the development of “practitioners’ guidelines for fisheries co-management facilitation (to be explored through the Myanmar Fisheries Partnership).

On 5th to 6th December 2019, the Coastal Area Fishery Partnership Development Interstate Workshop was organized in Set Se, with the intention of sharing the experience and methodologies in natural resource management and conservation activities; to identify the policies that should be changed based on the practical implementation issues on natural resource management laws and by-laws; and sharing patrolling systems and duties, punishment practices and impacts for conservation activities so as to develop more feasible plans for each area. Members of FDAs from different States and Regions; Ayeyarwaddy, Mon, Bago, Rakhine and Tanintharyi, including the members of ARFN attended the workshop. Minister of the Ministry of Agriculture, Livestock and Irrigation (Bago Regional Government) came to join the two-day workshop as well. Representatives from each State and Region discussed fishery resource management activities, and the successes and lessons learned.

Detailed information on Interstate Workshop can be seen at Annex 16.

2.4.5 Networks & Partnerships - Production of Newsletter

To facilitate knowledge sharing about the ICAWR project’s activities, the project published Volume no. 3 Newsletter in May 2019. In total, 1,850 copies were produced and 1,750 have been disseminated to date. The remaining 100 are held at the NAG head office and will be disseminated accordingly. In order to acquire content for the newsletter, the Project encouraged members of DoF, FDA and ARFN to submit articles, poems and stories that were relevant to the fishery sector. The project’s communication wing took responsibility for collecting the material, editing and publication. Copies of the newsletter were shared with fishery related agencies including government departments and fishing communities through a variety of means and forums, such as workshops, meetings and field visits. As before, the May 2019 newsletter was uploaded to the NAG webpage.

2.4.6. Networks & Partnerships - Fishery Resource Governance and Co-management Documentary

For the purposes of raising awareness of the theory and practice of fishery and resource governance, the ICAWR project engaged with ‘We Can’, a film production group, to develop a documentary. In June 2019, the documentary team visited fishery co-management areas in Min Ta Su village and Ka Nyin Ngu Village



in Pantanaw township, Shwe Hle village and Ah Kyaw village in Danuphyu township, Ahyardaw village in Laputta Township and Kadar Tan & A Khar Tan Inn/Tender areas in Pyapon Township. These visits allowed the documentary team to gain perspectives and a common understanding of the expectations of the project, and developed a step-by-step process from script writing to documentary shooting. The focus of the documentary was on the abundance of fish in conservation zones; the success of mangrove plantations and conservation zones; and interview sessions with Government Agencies and Fishery Communities members. The project team also provided footage of fishery law consultation events to the film production group that they will integrate into the final production. It will be covered the whole process of Law Amendment including Policy Impact Analysis, planned in January 2020. The Impact Analysis results will be shared again to Regional Government and Parliaments under SP2 and the documentary will be continuously worked on it. NAG expected that this documentary to be finished at end of 2020. Currently, the raw product was over 100 Gb size and kept at NAG's IT and Communication Department.

Detailed information on co-management documentation can be seen at

https://drive.google.com/drive/u/1/folders/1PLkbpOfMlrQ1f_jz-ueXcCqcRjIVof

2.4.7. NAG Organisational development- Strengthening of NAG policies and SOPs

At the end of every quarter, NAG implements a system of Quarterly Review and Planning (QPR) meetings where project management team members from various parts of Myanmar gather to, review current progress, document lessons and good practices, and undertake activity planning for the next quarter, which includes identifying needs to be supported by the Head Office. At each Quarterly Planning meeting, one to one-and-a-half days is dedicated to revising and drafting new internal operational policies.

During January to June, the Procurement Standard Operation Procedure was initiated, the Communication Policy was updated and ideas for a NAG IT Policy were discussed. The second 2nd Quarterly Meeting was held during the 1st week of August 2019, at which the HR Standard Operation Procedures were reviewed and discussed. The third 3rd Quarterly Meeting was held on the 3rd and 4th October 2019, at which the average 3 representatives from every project attended and the revised HR Standard Operation Procedures were presented again and the drafted Logistics and Procurement Policies were reviewed and discussed. The fourth 4th Quarterly Meeting was held during the first week of October 2019 at which the Logistics and Procurement Policies were continued to its finalization through the suggestions and feedback from the staff, and the Management Information System (MIS) was also introduced to participants for practical application. The first 1st Quarterly Meeting of 2020 will be held during the second week of January.

Detailed information on NAG quarterly meetings can be seen at Annex 17.

2.4.8. Strengthening the Capacity of NAG's Staffs

HR and Finance Introduction training was provided to 40, (6 male and 34 female) NAG Organizational Admin, HR, Finance and Procurement staff, from 21st May - 22nd May 2019 at the DRD Training Center, Yangon. Through the training, the participants were introduced to NAG's Financial System including; Payroll, Payroll Transfer, Exchange Rate for Payroll and Income Tax, Income Tax Payable Procedure, Income Tax Refundable, Income Tax Paid (Two Way Paid), Voucher Serial, Budget Request Template, Report Timeline, Advance Settlement, Audit Process and Quick Book Data Entry Session.



In order to strengthen the capacity of NAG staff in development work, especially in the Research and M&E programs, Statistics Training was arranged by the Program Quality and Learning Department through hiring Professor Dr. Thaug Htay, as a National Expert. The training began in May 2019 and was carried out over 5 half days per month, until the end of 2019. The Statistics training was carried over 8 phases, at which the initial participants were 27 in total from Research and M&E departments, and other Programs. It actually turned out that half of them could not fully participate in all of the 8 phases and some of had to miss training sessions as they had to travel to the field. The main objectives of the training was 1) to understand Statistics subjects that are based on Information Science and Data Science and 2) to be able to apply the Statistics knowledge in NAG's programs, research and monitoring & evaluation activities in particular. Through this training program, NAG staff explored the following areas:

- How to conduct quantitative and qualitative assessment of projects with the aid of time tested statistical tools, techniques and procedures for monitoring and evaluation purposes
- How to enter and modify data; create charts, scatter plots, and histograms; examine outliers; calculate correlations; and compute regressions, bivariate associations, and statistics for three or more variables;
- How to develop a basic set of skills to read, interpret and use gender statistics correctly;
- The course will also enable the participants to learn how to incorporate a gender perspective in all stages of the data production process;
- How to work with hands-on application techniques on generating probability samples using basic sampling methods, as well as data analysis appropriate to use for samples generated using a specific sampling techniques;
- How to write comprehensive statistical reports, enhance oral and written presentation skills by giving presentations with immediate oral feedback through videotaping, review and critiquing.

Detailed information on Statistic Training can be seen at Annex 18.

During the first week of December 2019, Supply and Logistics training was conducted at the PCM training room for the logistics related staff from all NAG projects and other project staff. The training was led by the Logistics Department of NAG Headquarter to provide detail information and application processes on the updated logistics system and policies.

Detailed information on Supply and Logistic Training can be seen at Annex 19.

A Communication Policy Review and Strategy Development Workshop was organized for 3 days from 25-27 September 2019, at which the elements of the NAG communication policy were presented, reviewed and discussed in groups. Stakeholder analysis, reviewing the policies of other organizations, and developing a database were also covered on the first day of the workshop. On the second day of the workshop, the communication focal persons from every project of NAG participated and discussed copyright issues, data management, ethics of magazine advertisements, and creative writing. On the third day, participants discussed the improvement of monitoring and evaluation of communication mechanisms and developing a communication plan.



Detailed information on Communication Policy review and strategy development workshop can be seen at 20.

2.4.9. Developing and Installation of Organizational MIS System

Network Activities Group (NAG) has been steadily developing into a much larger organization, thus, its Monitoring and Evaluation (M&E) system must be developed and strengthened accordingly. NAG previously managed project level Management Information Systems in 'Silos' and wants to transform this system into a more comprehensive and integrated organization-wide system.

With the objective of developing a web-based Organization Management Information System (MIS), NAG called for proposals on the 24th December, 2018 through Newspapers and MIMU. Three applicants applied for the call for proposals; iHub Group, Novel Idea, and Ei Zar Paing. The Novel Idea proposal was selected in accordance with the criteria mentioned in the announcement. The MIS system has now been developed with four main components; System Development & Maintenance; Capacity Development; Remote Support and Backstopping; and Integration of GIS/RS to MIS.

Five main sectors which utilize the web-based MIS system are; HR & Admin; Program Quality (PQL); Programming; Procurement; and Finance Department. NAG and Novel Idea have completed the development of a MIS system for HR and Admin, procurement and program related forms and formats to date. Developing the Program Quality and Learning related forms and formats such as M&E formats, Research questions and survey forms and formats, and Communication related forms, and GIS related forms; and Financial formats and forms will be completed by the end of March 2020.

Detailed information on MIS development can be seen at Annex 21.

2.4.10. NAG Organisational development- Bio- Metric Measuring Fish and Socio-Economic Monitoring System Installation

In order for NAG to continue to develop its capacity in fisheries co-management, it is necessary for some in-house fisheries management biological skills and knowledge to be acquired. Following training by WorldFish in 2018, NAG began piloting fisheries bio-metric monitoring data collection in 3 co-management zones. Collector data and large gear use data were collected weekly and common gear use data were collected daily. The bio monitoring data were collected in Zone 1_ Myin Ka Kone and Gone Nyin Dan areas; in Zone 2_ Min Ta Su, A Kyaw, Palaung and Ka Dit; in Zone 3_ Kyone Da Done and A Yar Daw. The fishers collected these data on their own and later reported to the NAG Capacity Building Coordinators (CBCs) on a monthly basis. All the collected data are being entered into the database by the M&E focal person in Pathein NAG. Data collection is continuing in the piloted areas. In future, even, DoF is responsible for further data collection, NAG together with ARFN and FDA will do continuously on it. Because, these data are supportive for Conservation Projects whether the fish stocks and species are increasing or not.



2.4.11. Research Internship Programme on Women Roles in Fish Processing and Marketing

Improving the role of women in fisheries, including their participation in the post-harvest sub-sector, is one of the priority outputs of the ICAWR project. Within NAGs work, training, and technical & financial support for value chain related activities have always targeted women.

In 2018, Ms. Pyae Pyae Phyo, local university intern from Hinthada University and Ms. Sayuri Ichikawa, international intern from Australian National University (ANU) were recruited and the research on “Gender in the Small-scale Fishery Value Chain” was carried out with the technical support of the NAG Research Team.

In January 9 - 21, 2019, together with staff from the Research Department, the two Research interns visited villages in Pyapon Township, Dedaye Township and Pantanaw Township to carry out research on gender roles in the fisheries post-harvest sector. Two research groups were formed to focus on the different interests in order to include representation from all levels of the community. Sayuri Ichikawa and Myo Zin Ko Htet conducted Focused Group Discussions, (FGD) with members of FDAs, and Key Informant interviews, (KII) with fishers and village heads. Pyae Pyae Phyo and Khaing Zin Maung conducted FGDs with women groups and KII with collectors, retailers, processors, supporters and non-supporters. The Research teams reached out to retailers in towns in each Township; and collected information. Data entry was undertaken by the Research Department immediately after the data collection in each Township. Sayuri Ichikawa analyzed the data afterwards.

On the 29th January 2019, the Two Research teams went to Kyi Myin Daing (San Pya Fish Market) to meet with wholesalers to assess their working process and practices. On the 11th February 2019, Sayuri Ichikawa gave a final presentation of her research findings. From February - June 2019, the two Research interns have been working on their Research reports and had finalized them before July 2019. Sayuri Ichikawa produced the Fresh Fish value chain research report, and Pyae Pyae Phyo produced the Dried Fish, Fish Sauce, and Fish Paste value chain research report.

Another 3 international interns from the Australian National University (ANU) will arrive in Myanmar during January 2020. One of them will be focusing on the study of Fiscal Decentralization in Fisheries in Ayeyarwaddy Region, the second, will undertake a Policy Impact Study in Ayeyarwaddy and Bago. The third intern will focus on the monitoring and evaluation of the training programs conducted by Department of Rural Development (DRD) in the whole country.

2.4.12. NAG Organizational development- Internship Program at ICAWR Project

Every month since the project inception period, 30 trainees from various Townships have attended PCM training courses organized by NAG. At the end of each course NAG has selected the best trainees and assigned them as volunteer interns on various NAG projects around the country. During the reporting period, NAG assigned one internship trainee for on-the-job training under the *Improved Co-management of Ayeyarwaddy Wetland Resources Project (LIFT-NAG)*. The intern hired under the Project is shown in the table below:



Sr.	Name	Township Duty Assignment	Appointed	Support To
1	Daw Am Zine	Thar Baung; Ye Kyi; Labutta, War Khae Ma, Ein Mae, Lay Myat Hnar, Ngapudaw	23 Oct 2019	Daw Thida Soe

2.4.13. Organizational Development workshop for ARFN conducted

As the ICAWR project is going to end in January, NAG hired an external consultancy organization named Sagawa that specializes on organization development to conduct the organizational development workshop for ARFN as one of the exit strategies for project phase out. Sagawa proposed an Organizational Development process with 7 phases. On 11-12 December 2019, Sagawa together with NAG focal persons identified for organizational development, organized a workshop on Organizational Diagnosis out of its proposed phases in Pathein, at which 38 representatives from ARFN and FDAs attended and the situations of ARFN and FDAs were assessed. Sagawa will organize a sharing workshop on findings of the workshop with NAG staff in February 2020 and will develop another proposal for further phases of organizational development.

Detailed information on Organizational Diagnosis workshop can be seen at 22.

3. INSTITUTIONAL, OPERATIONAL AND ECONOMIC SUSTAINABILITY.

There is a concern for the likelihood of the previous elite fisheries sector figures return to dominant fisheries co-management committees or any arrangements. In fact, the extent to which co-management system can be formalized or sustained with the new incentives and capacity to support this kind of bottom-up process that strongly represents co-management, is still in question given that its future may depend on the 2020 Election results and the priorities and interests of the next government.

Although the new fishery law includes the provision for community fisheries, it neither makes mandatory nor guides the establishment of co-management mechanism either in the Law or the Bylaws. There is a possibility of the cancellation of the current policy of awarding community fisheries tenders/Inn under the value of 40 Lakh (in a few areas more than 40 Lakhs valued Inn was also given to community fisheries group) and a return to the previous ways of serving individual benefits rather and enabling cooperation under co-management arrangements. This could be a discouraging factor to the long-term commitment to institutionalizing co-management system and conservation practices.

There is a critical need for the bylaw to be amendment, in line with the new law to provide clear guidelines and principles for the establishment of co-management. At the moment the guidelines are weak and do little to drive the co-management reforms forward. It will be necessary to find a way to formalize and support local rule-based mechanisms for co-management arrangements. Otherwise, the co-management approach may not be sustainable.



The role of the DoF needs to be more oriented and structured to facilitate the institutionalization of community fisheries management rather than their previous primary function of control and collecting revenue. However, these changes have not been introduced at the State and Regional level since the DoF is still centrally controlled by the Union Ministry. One of the other constraints for DoF is the budget limitations for operation and other support costs. Additionally, there is no specific Department to provide support to community fisheries, which is highly recommended for future development. At some stage, hopefully under the next Government, a complete institutional review of DoF needs to be done, and the Department re-structured, re-educated, re-skilled and re-orientated accordingly.

The support provided by LIFT under the Strategic Partnership, is allowing for the rapid growth of NAG as a development organization. This will help ensure that future NAG projects are cost effective, fully accountable and well managed.

4. LESSONS, NEW CHALLENGES AND RISKS

During the democratic transition period, freshwater fishery governance has steadily improved through structural changes and interactive processes. Through persistent lobbying, collaboration, engagement and trust building, by NGOs and civil society organizations, Regional and State Parliaments have promulgated freshwater fishery law in Ayeyarwaddy that encapsulate pro-poor policies and create a legal basis for community fisheries co-management.

However, the current reform process still faces several challenges to the successful implementation of the law, bylaw and pro-poor policies especially for the formalization of these new institutions. Firstly, even though inns/tender areas with an auction floor price of under 40 lakh MMK are proposed to be allocated to the SSF on the floor price basis, the inns/tenders with an auction floor price of over 40 Lakhs can only be obtained through participation in the auction system. The floor price of inn/tenders keeps changing from year to year using the floor price calculation system adds more uncertainty and hardship to the fishers. For example, in 2017, the floor price of Mya Sein Kan Tender was MMK 39 Lakhs and it was allocated for SSF. But in 2018, the floor price was increased to MMK 4,290,000 with the addition of 10% over 2017 floor prices, which means that the tender could not be allocated to the SSF because its floor price had gone over 40 Lakhs and made it necessary to be allocated through the Auction System as per the Government Policy. The bottom line is that the inn/tender has passed out of the hands of the SSF, who will now have to bid and get rights to the tender in competition with the more powerful and affluent outsiders.

Secondly, there are the conflicting interests for socio-economic development goals of the society as a whole. Thirdly, the limited capacity of Department staff to implement the new law and policies due to personal motivations, conflicting interests and an on-going power struggles between the regional/state governments and the Union fishery department.

Finally, the limited institutional and financial capacity of small-scale fisher organizations to effectively implement co-management mechanisms when many of their members remain shackled to local bonded market chains.



Despite these challenges, the recent reforms of freshwater fisheries sector governance in Myanmar are regarded as a significant success and provide lessons and guidance for the improved governance of other economic sectors. These lessons are valuable to explore especially in understanding the impact of the new regulations, social dynamics and revenue in relation to co-management arrangements and practices.

5. PLANS FOR THE NEXT PERIOD (JAN 2020)

Sr.	Activities	January 2020			
		1 st Week	2 nd Week	3 rd Week	4 th Week
	3.1 LIFT Outcome 1				
1	SME Training		x		
2	Regular Monitoring on Conservation Zones and Co-management Area	x	x	x	
	3.2 LIFT Outcome 2				
3	Ayeyarwaddy Fishery Policy Impact Study	x	x	x	
4	IEC and Communication Materials (Publications)			x	
	3.3 LIFT Outcome 3				
5	Publication of Fishery Curriculum/ Manuals				x
6	Fishery School Handover and Operational Plan Review				x
	3.4 LIFT Outcome 4				
7	FDA and ARFN Regular Quarterly Meeting (1 FDA District Meeting + 1 ARFN Meeting)	x	x		
8	Internships linking with Academic Institutions	x	x	x	x
9	Completion of NAG Staff Capacity Building Training (SPSS)		x		

6. OTHER KNOWLEDGE PRODUCTS AND PUBLICATIONS

It is important that NAG's ground breaking work in the fisheries sector in Myanmar is recognized both nationally and internationally. During the reporting period, key senior NAG officers have made a concerted effort, (with close colleagues from other organisations) to present at international conferences and to publish peer review and popular articles on NAG's work in the Myanmar fisheries sector. These reports include a submission to the Journal of Burma Studies, on the history of fisheries governance in Myanmar. Publications on labour abuse in the fishing industry have helped highlight the plight of many workers in the sector. The paper of History of Fisheries Governance in Myanmar was still under peer review process and NAG is now updating the papers based on the comments.

NAG knowledge, experience and training materials are starting to be used by more and more organisations in Myanmar. For example, the FAO Fish Adapt Project, which is promoting fisheries



co-management in the Delta are utilizing NAG resources (human and material) in their coming training courses on E-EAFM.

In November 2019, an article namely “We can't allow Myanmar’s slavery-tainted shrimp to land on our plates” by Aidan McQuade together with Co-author, U Yin Nyein, was published at “The Guardian News”, the prominent media of UK. The link of the Article is as following -

https://www.theguardian.com/global-development/2019/nov/12/we-cant-allow-myanmars-slavery-tainted-shrimp-to-land-on-our-plates?CMP=share_btn_fb&fbclid=IwAR2_P1WGooyY7ln-UdqdCoGnDJlOTsyDtaz8hRXUJlQXJtN2hSUmA3vBrKI

7. STAKEHOLDERS, POLICY INFLUENCE, AND CONFLICT-SENSITIVITY

In Myanmar, the most significant fisheries problems are associated with issues of inequality, resource decline and poverty, often in relation to concentration of fisheries resources ownership by a particular group such as “Inn” owners or tender license ‘owners’. These factors have triggered increasing demands from small-scale fishers for increased access and fair and equitable resource sharing. Balancing the interests of social and economic needs around access to fishing grounds is a key challenge to orchestrating good governance. For example, the former Minister in Ayeyarwaddy made a noble and tireless effort for community fisheries rights by confronting structural norms such as the way that the tender system had been maintained by powerful groups. He was successful in this regard but for his efforts, he was forced to retire. This example explains why many technical interventions fail due to naivety about the political complexity.

Since stakeholder power and influence is uneven across the whole fisheries sector, the institutions are too weak to achieve fair and equitable sharing. In fact, there is a deliberate effort of the winners to weaken and compromise governing institutions by using vested interests. Of course, the DoF and other relevant agencies are inefficient and un-transparent, and the result is that only a few groups continuously benefit and this leads inevitably to institutional erosion, the breakdown of the rule of law, and a concentration of wealth to those few who can maintain access to resources and those in power and who have influence. Thereby any reform efforts are challenging due to the resistance by those most likely to lose out from any change.

There are new emerging competing interests and incentives in co-management system since the new Ayeyarwaddy Freshwater Fisheries Law has been implemented that includes the provision for co-management. In Ayeyarwaddy, co-management practice is still quite new in many areas. Therefore it is hard for the DoF to manage the new interests and incentives of different groups to perform co-management arrangements that are supported by the new law.

At the Union level, progress on the proposed Marine Fishery Law is still stalled and indications at the Danida co-management workshop in 2019, is that it will stay stalled for some time. Whether NAG should increase its level of engagement in the Marine law development process or not, requires careful consideration. Clearly, some individuals in Government do not want to see the Marine Law pass, which due to the decentralization of inshore areas, as empowered through the Constitution, could further weaken the power and influence of the Union level DoF.



It is quite likely that NAG's increasing interest in decent work in the fisheries sector will make them new enemies. However, this issue is of such huge importance to the livelihoods of thousands of fish laborers, it requires the active engagement of NAG on multiple levels to bring an end to these abusive and dangerous practices.

8. GENDER

At all aspects of project interventions in Fishery Sector, NAG is working hard for Gender Equity and the promotion of women's roles. The Project supported women led SMEs in fishery products related business and other products produced by fisher women and their families. During the reporting period, the role of women in fishery resource conservation increased and the participation of women in co-management discussions were seen to have increased when the Project team organized the mission visits including LIFT Mission Visits to the project area.

In 2019, NAG mobilized the communities' focal person to implement the Co-management M&E System to be able to understand the impacts of the system. At the implementation of system, women were playing a lead role in 2 villages and had regular reporting to the project team and sharing good practice through the meetings.

In the early months of 2019, a research namely "Women Roles in Fish Processing & Marketing" was conducted by Ms. Sayuri Ichikawa (ANU) and Ms. Pyae Pyae Phyoo (Patheingyi University) and the reports were submitted to NAG in May 2019. According to their report, NAG understood the areas that could be improved to strengthen the role of women in Fishery institutions such as FDAs and Fishery Groups and these areas are highly emphasized at Organizational Development Programs for ARFN and FDA.

9. CROSS-CUTTING ISSUES

The NAG project recognizes the need to raise awareness of the links between the environment, **biodiversity** and fish catches, among the fishing communities as well as among the relevant government and NGO organizations. In 2019, NAG team collaborated with WorldFish and implemented the Bio-monitoring Study with the active contribution of FDAs members in project targeted areas.

NAG conducted the Kyaw Phong Fishery Study by proposing how the environmental, social and economic dimensions of this fishery could be enhanced to optimize benefits, including the well-being of **migrant fishers** and fish workers; and considered promoting a co-management framework in relation to fisheries, informal **work and safety at sea**, in a coordinated and coherent manner, drawing upon international instruments such as the FAO Code of Conduct for Responsible Fisheries, FAO's Voluntary Tenure and Small-scale fisher guidelines and ILO instruments in relation to decent work. The study findings are shared with fisher leaders and prepared Article for "The Guardian News", the prominent media of UK. Together with ILO, DoF and Local Authority, "**Safe Migration and Safety in Sea**" information was shared to Kyaw Phong Fishery sector related stakeholders.



In addition, through the PCM training and short courses run through the Pyapon Fisheries School, several cross-cutting issues are being discussed. These include **DRM and climate change**. It is also important that community fisheries co-management plans include DRM preparedness measures and agreement on the climate change adaptation within the community.

10. SUSTAINABILITY AND EXIT STRATEGY

The LIFT/NAG Partnership remains a key component of NAG's organizational development ambitions. NAG has achieved remarkable success through this project and has brought about, what history may well view as a revolution of fisheries management in Myanmar. However, it is important that NAG support continues so that the favorable fisheries governance changes that have taken place in Ayeyarwaddy have a chance of success.

The changes in the Ayeyarwaddy Freshwater Fisheries Law, ByLaw and 40 Lakh policy have increased interests and incentives of the fisheries to participate in a co-management system but mainly to gain access to fishing ground. This requires further effort for formulation of the whole fisheries institutions by integrating co-management mechanism of overall fisheries management and NAG will keep working on this components together with ARFN.

In 2019, project team much focusing on the strengthening the capacity (including OD) of ARFN and FDAs to taking over the role of NAG in the area of policy advocacy, networking and supporting the community led SME. The ICAWR program was supposed to be linked with NAG's upcoming SP2 program and no-cost extension for a month of January was planned for the smooth transaction to SP2.

Focusing on the improved opportunities of livelihood diversification of fisher communities, NAG linked with A-Bank for financing program at Ayeyarwaddy Region for Fishery Sector and the series of discussions with local authority, key department, FDAs, ARFN and A Bank were carried out in 2019. Through the meetings, the initial agreement of A Bank to provide the SME loan for Fishers was received and the detail program will be discussed at early of 2020. To access the loan there need the following factors need to be submitted –

- Recommendation from DoF and GAD
- Original Slip/Invoice of Inn/ Tender Purchasing through Auction Process
- Membership Report
- Official Registered Certificate of Fisher Development Association
- Fisher Development Association's Management Plan and Proposal
- Documents of Type of Fisher and Fishing Gears

11. VALUE FOR MONEY (VFM) AND EFFICIENCY

NAG has achieved remarkable success through this project and it can be reported that the project is met with Value for Money and Money was used efficiency and effectively. By the effort of the project, positive changes in policy and new legal mechanisms of community fisheries have impacted social, economic and environmental outcomes of the Ayeyarwaddy Region, and there are many invaluable lessons emerged in which the legislators, the Department of Fisheries and



other support actors can take best advantage of the opportunities for leveraging the successful outcomes and mitigating risks.

Quite simply, with a limited budget, NAG has achieved a level of fisheries governance reform success that has been, and continues to be the goal of many multi-million dollar donor programs and projects. In this regard then the value for money of this project is extraordinary.

New community-based Fisheries Group legalized by the new Ayeyarwaddy Freshwater Fisheries Law (AFFL) and 40 Lakhs verbal Policy have been a major driver for change in producing (intended or unintended) outcomes of all social, economic and environmental factors. The impact may occur along the new value chains of fisheries market and can be linked to the social accountability, increased access to fisheries resources, or to the actual characteristics and effects of the new management arrangements. One single Tender policy (providing tender license under 40 lakhs value to community fisheries group with the tender floor prices without needing to call for tender auction) and community fisheries management mechanism granted by new AFFL have enabled thousands of small scale fisheries to gain access and it has had several impacts at multilevel (horizontally and vertically), which are also be influenced by factors that are not related to the access or production of fisheries itself.

The positive economic impact for the poor is significant to improve for the fishers from the group who have now gained access to fishing grounds that was never been the case in their life. Particularly, the community fisher section in the law, mainly influenced by 40 lakhs tender policy, have made significant changes to the way freshwater fisheries in Ayeyarwaddy is governed and has contributed to both poverty reduction and sustainable management attributed by improved livelihoods and conservation. The new legislation serves the higher potential to improve governance through support for community fisheries management that has strong implications of reducing corrupt and exploitative practices.

The introduction of the <40 Lakh Inn/tender floor price policy is the most significant impact in expanding the scope of community fisheries concept and inclusive fisheries management mechanism. The fisher associations members who have now direct access to fishing grounds without needing to compete for a tender have benefited from this as their confidence and personal growth has been enhanced.

It is also reported that total 487 inns were awarded by many new individuals or groups, some are even wealthy villagers from other communities, are taking advantage of the having tender licenses with the floor price without needing to compete. Accordingly, the government estimates that around 135,000 fishery HHs from 2,700 villages are receiving direct benefits from access to secure fishing grounds with floor prices in 2019. In addition, 52 common fishing grounds are provided for small-scale fisher communities. There is a danger in this new development, as common fishing grounds by definition are open access and the clear lesson from Cambodia is that co-management is more problematic in open access areas than in cases where communities or fisher groups have exclusive access. Should the next Government decide to only award common fishing grounds to communities, then this would be a significant step backwards for the development of an equitable and healthy fisheries sector in Myanmar.



Economic Impacts

In terms of economic impact, the increased access to fisheries resource for more fishers have provided a significant positive economic impact for these fishers as their main sources of income have improved by having access to tender licenses at the tender floor price as the community fisheries group. On the one hand, this has clearly motivated them for further collaborative efforts for community development as the positive impact.

Small-scale fishers are no longer dependent on big fishers who used to control the tender license and fishing grounds in which small-scale fishers have to sublease or work as labor. More importantly, perspectives towards community fisheries ideology have been changed and many fishers share their view on the new co-management system as a sustainable method, productive with collective benefits. As small-scale fisher transaction costs have been reduced, even if fish catches or prices do not increase immediately, the economic returns from fishing will have increased in many cases.

More MPs and DoF officials are convinced and inspired to accept community fisheries co-management. It was also reported that there has been an increase in total revenue of the AyeAyeyarwaddy Region since the new law and policies have been applied but there is no clear budget statistics available since the revenue is not being made public and there is no mechanism for the public to access the information (yet!).

Social Impact

Many drivers of social impacts are related to economic incentives. A big part of these impacts is based on the redistribution from the few who “used to benefit?” to the many fishers who “used to be losing?” Changing income levels, better access to markets, increased production and conservation measures have potentially positive effects on the local economy, service improvement and infrastructure support that attribute to overall social cohesion.

There is a significant change in relational dynamics amongst key actors involved especially the role of MPs. Before the new law, they played highly influential roles in managing tender licenses and granting tender license at the tender floor price, especially in their constituents. However, they continue to play a facilitator and collaboration role with the key actors from local organizations, DoF officials, village heads and fishers in addressing fisheries issues and conflicts.

There has been improved constructive working relationships between DoF and fishers and among DoF, MPs and fishers particularly in the areas where communities have gained tender license for consecutive years. More importantly, the fisheries groups that have gained access to fishing grounds for more than 5 years, show stronger evidence for not only increased participation of local communities in local social, cultural, economic and political issues but also democratic arrangements and practices found in their fisheries management such as electing leaders, voting for decision and transparent financial management.

12. PROJECT MANAGEMENT / OPERATIONAL ISSUES



12.1. Human resources

NAG has a plan with 5 objectives for Organizational Development and these objectives are focusing on improving organizational performance and the capacity of organizational staffs. The regular capacity strengthening trainings, both short-term and long-term have supported multi-levels of NAG staff and the policies and SOPs are updated through NAG's Quarterly meetings. The capacity needs of NAG's staffs are regularly assessed through the quarterly Performance Evaluation System and plans for capacity building are fully based on the PE findings. On the other hand, NAG regular offered the best trainees who completed the PCM Training courses as volunteer interns on various NAG projects around the country.

Support to building Regional Government Staff and MP capacity has been an essential component of the NAG project. NAG has supported fisher sector education including the renovation of infrastructure and developing training curricula. The Fishery School Operation Plan was developed through workshops and the regular training programs for DoF through the renovated fishery school was facilitated through 2019. MPs of Ayeyarwaddy Region were encouraged to improve their knowledge in the areas of research and the design of Ayeyarwaddy Regional Policy Impact Study incorporated the contributions of Regional MPs. In the last months of 2019, the study has conducted region-wide and the whole program was led by MPs and their understanding on the Ayeyarwaddy Fishery New Laws and By-law significantly improved as a result.

The FDAs and ARFN Human Resource development was systematically promoted through different types of capacity strengthening programs. Trainings such as Co-management Training, Eco-system Approach to Fishery Management (EAFM) Training, Disability and Inclusions Training, and Food & Nutrition Training, were provided to leaders of FDAs and ARFN. On the other hand, to improve their knowledge on resource management and understanding the Political Economy Condition of Fishery Sector, FDAs and ARFM members were offered to join events such as Exposure Visits to the Gulf of Mottama Area, Research Results Sharing Events, Inter-state Fishery Partnership Workshop and Union Level Co-management Fora.

Finally, Human Resources Development is on-going processes and will adapt to meeting demands and the ever changing Political Economy landscape.

12.2. Budget

At the end of 2019, 94% of the Project funds had been spent. The remaining budget will be spent during the month of no-cost extension in January 2020.



PREPARED BY

Name: Bobby

Title: Chief Executive Officer

Organization: Network Activities Group

Signature:



LIST OF ANNEXES

- Annex 1_Awarded Inn & Tender List 2019-20
- Annex 2_EAFM Training Report
- Annex 3_FDA List of Ayeyarwaddy Region
- Annex 4_Grant Aid Contract for Conservation Projects
- Annex 5_NAG Diary Book and Vinyl
- Annex 6_Mission Report on SME and Value Chain Program
- Annex 7_Research Results Sharing Workshop Report
- Annex 8_Mission Report on SME and Value Chain Program
- Annex 9_AFP Workshop Report
- Annex 10_By-Law Awareness Reports
- Annex 11_Fishery By-Law Design
- Annex 12_Completion Certificate _Training School Pyapon
- Annex 13_Fishery Training School Operation Plan
- Annex 14_Fishery Curricula and Manuals
- Annex 15_Fishery Co-management M&E System Review Workshop
- Annex 16_Fishery Partnership Interstate Workshop Report
- Annex 17_NAG Quarterly Meetings 2019
- Annex 18_Statistics Training Report
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- Annex 21_Management Information System Progress Report
- Annex 22_Organizational Diagnosis Report
- Annex 23_ICAWR Project Financial Annual Report_NAG
- Annex 24_ICAWR Project Asset Report_NAG
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- Annex 26_ICAWR Project Monitoring Report_NAG
- Annex 27_Profit Margin Analysis_Thin Mat Production

Profit Margin Analysis

Name Of Business Owner				Pyit Taing Daung		
Type Of Business				Thin Mat (IGA)		
No.	Reason	Quantity	Unit	Cost	Amount	Remark
Expenditure for preparedness (Buying Business Tools and etc.)						
1.	1. Timber Pole (5"x5")	12	Nos	20,000	800	Life time -25 years
	2. Timber Pole (18" Length)	32	Nos	4,500	480	Calculated for 1 month
	3. Nail	1	Set		83	
	4. Zinc (Roof)	50	Sheet	5,500	917	
	5. Brick	500	Nos	130	217	
	6. Sand	1	Set	30,000	100	
	7. Cement	5	Bag	7,000	117	
	8. Concrete Foot Block	12	Nos	2,000	80	
	9. Nut	24	Nos	400	32	
	10. Ground Preparation	10	Set	5,000	167	
	11. Carpenter Charges		Set		833	
Total expenditure for preparedness					3,825	
Expenditure for Input (Buying the products)						
2.	1. Buying raw material	70	Person	170,000	11,900,000	For 1 month
Total expenditure for Input					11,900,000	
Expenditure for Operation (Meeting charges)						
3.	1. Meeting Charges	1	Times	15000	15,000	
Total expenditure for operation					15,000	
Total Expense					11,918,825	For 1 month

Calculation the net profit of Thin Mat Trading Business

RESELLING METHOD	Collecting at the village and selling at Yangon Market	
Cost of Home Consumption, used from selling products	-	
Cost of Social expense, used from selling products	-	
Used money, got after selling the products	16,625,000	
Waste Value	-	
(1) Total Sold Cash Amount	16,625,000	
(2) Total Expense	11,918,825	
Net Profit (1-2)	4,706,175	
Profit Margin	= $\frac{\text{Net Profit}}{\text{Total Sold Cash Amount}} \times 100$	28.31%