



Food and Agriculture
Organization of the
United Nations



FishAdapt

Strengthening the adaptive capacity and resilience of fisheries and
aquaculture-dependent livelihoods in Myanmar

Food and Agriculture Organization of the United Nations
and
Global Environment Facility



Monitoring, Evaluation, Learning and Implementation Plan

December 2019

Acronyms

AAP	Accountability to Affected Populations
AMAT	Adaptation Monitoring and Assessment Tool
AQ	Aquaculture
BOBLME	Bay of Bengal Large Marine Ecosystem
CC	Climate Change
CCA	Climate Change Adaptation
CCRF	Code of Conduct for Responsible Fisheries
CD	Capacity Development
CEDAW	Convention on the Elimination of Discrimination Against Women
CZM	Coastal Zone Management
DMH	Department of Meteorology and Hydrology
DOF	Department of Fisheries
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EAA	Ecosystem Approach to Aquaculture
EAFM	Ecosystem Approach to Fisheries Management
EbA	Ecosystem based Adaptation
ENSO	El-Nino Southern Oscillation
EWS	Early Warning System
FAO	Food and Agriculture Organization of the United Nations
FI	Fisheries Industry
GEEWG	Gender Equality and Empowerment of Women and Girls
GEF	Global Environment Facility
IASC	Inter-Agency Steering Committee
INDC	Myanmar's Intended Nationally Determined Contribution (2015)
INGO	International Non-Government Organizations
IP	Implementing Partner
IUU	Illegal Unreported and Unregulated
KAP	Knowledge, Attitude and Practices
LA	Learning Agenda
LDCF	Least Developed Countries Fund

M&E	Monitoring and Evaluation
MEAL	Monitoring, Evaluation and Learning
MFF	Myanmar Fisheries Federation
MLFRD	Ministry of Livestock, Fisheries and Rural Development
MOALI	Ministry of Agriculture, Livestock and Irrigation
MOE	Ministry of Education
MONREC	Ministry of Natural Resources and Environmental Conversation
MOPF	Ministry of Planning and Finance
NAPA	National Adaptation Programme of Action to Climate Change (2012)
NAP-GSP	National Adaptation Plans Global Support Programme
NGO	Non-Government Organization
NSPAW	National Strategic Plan for the Advancement of Women
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PDM	Post Distribution Monitoring
PoVAW	Protection and Prevention of Violence Against Women
PPG	Project Preparation Grant
RAC	Rakhine Advisory Committee
RIMA	Resilience Index Measurement and Analysis
SCCF	Special Climate Change Fund
SDGs	Sustainable Development Goals
SIS	Small Indigenous Species
SOGIESC	Sexual Orientation, Gender Identity and Expression and Sexual Characteristics
SMART	Specific, Measurable, Achievable & Attributable, Relevant & Realistic and Time-Bound & Targeted
SSF/A	Small Scale Fisheries/Aquaculture
STAP	Scientific and Technical Advisory Panel
SWOT	Strengths, Weakness, Opportunity and Threat
TNA	Training Needs Analysis
UNFCCC	United Nations Framework Convention on Climate Change
VA	Vulnerability Assessment

Definition of Key Terminology

Accountability to Affected Populations (AAP) - Accountability to Affected Populations is a process used by the FAO to ensure a timely and appropriate response to all complaints, enquiries or suggestions from programme beneficiaries, or those directly impacted by a programme activity.

Adaptation Monitoring and Assessment Tool (AMAT) - Is a set of generic indicators for climate adaptation Projects. The AMAT provides a framework for addressing a Project or Programmes overall success in the Least Developed Countries Fund (LDCF) and/or Special Climate Change Fund (SCCF) goals.

Benefit From – This term refers to the number of people who will benefit from the overall impact of the FishAdapt programme. It is estimated that approximately 3,000,000 people will benefit from the impact that the FishAdapt will have on the fisheries and aquaculture sector¹.

Climate change adaptation activities - Are adjustments to natural or human systems in response to actual or expected climate change impacts. These activities are intended to moderate harm or better utilize beneficial opportunities. Examples include building or improving sea walls, changing fishing patterns, changing fish species in aquaculture, and developing alternative water sources.

Climate change mitigation activities – Are actions that reduce the sources of greenhouse gases. Examples include directly reducing emissions at the source, changing to low-carbon energy sources and reforestation.

Direct Beneficiary - This term which refers to a person who is directly in contact with and receives an input from the FishAdapt programme and their immediate families, or other people that they financially support. The names of direct beneficiaries are recoded as part of receiving an input, training or being provided directly with a service from the programme. Standard demographic information gathering from the direct beneficiary, provide the number of family and other dependents, who will gain a direct benefit from the family being involved in the programme.

Evaluation/Assessment of Intervention Strategies – This evaluates the appropriateness and effectiveness of the strategies and activities which the initial vulnerability assessment identified, and on which initial programme activities were based.

¹ The benefits of international assistance of aquaculture and fisheries development accrue directly to three groups of individuals. These are:

a. **Producers and/or Farmers**, who benefit in terms of increased or maximized incomes, by consumption of better quality, more consistent fisheries and aquaculture products and through increased family and community employment. Members of these groups directly involved in the programme and would be termed direct beneficiaries.

b. **Consumers**, who gain from the increased availability of (volume/higher quality/lower price) of aquatic products for food, and to a lesser extent from increased opportunities for employment. This group would be termed in-direct beneficiaries.

Benefits are also obtained directly and indirectly by:

c. **Communities** – as a whole - **who benefit from the programme**, including governments, which fulfill commitments in plans and policies and institutions which participate to achieve goals and objectives. This group benefits from the programme, in the same manner although to a lesser extent as the consumers, but also due to improved and more appropriate government policies and actions, initiated by the programme. Text adapted from: The beneficiaries of International Assistance to Aquaculture. <http://www.fao.org/3/s2761e/s2761e02.htm> Downloaded 17 April 2019.

Global Environment Facility (GEF) - Is the managing body of the Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF) funds. The GEF operational policies, procedures, and governance structures apply to the funds, unless COP guidance and the LDCF/SCCF Council decide otherwise.

Goal - Is the higher order objective toward which a development intervention intends to contribute.

Impacts - Include an intervention's positive and negative long-term effects on population groups, including economic, sociocultural, institutional, environmental, and technological effects

Implementing Partner – This a term used to describe a local Non-Government Organization that has been engaged to implement a component of the programme, for a variety of reasons, including local knowledge, access to restricted areas, or specific or specialist expertise in the programme component.

In-Direct Beneficiary - An Indirect Beneficiary is a person who receives an advantage or benefit from the activities of the FishAdapt programme. Indirect Beneficiaries are usually consumers of the products that are produced through programme activities, and / or community members of the wider locations where interventions and activities have been implemented.

Knowledge, Attitude and Practices (KAP) Survey – Is a survey that determines if knowledge has increased, if attitudes have altered and practices have changed. It is used to assess the impact and effectiveness of capacity building, and training programmes.

KOBO – Is an information management system located on a server in Ireland under the control of United Nations Office for the Coordination of Humanitarian Affairs (OCHA). This system is available to be used by all UN agencies, is approved by FAO Head Quarters and meets all data security protocols. This is **NOT** the open source system available on the internet, although it has the same name as it is based on the same software.

LDCF/SCCF Council – Is the main governing body of the Least Developed Countries Fund (LDCF) and /or Special Climate Change Fund (SCCF). The LDCF/SCCF Council functions as an independent board of directors with primary responsibility for developing, adopting, and evaluating LDCF/SCCF policies and programmes.

Monitoring - Is a continuous or periodic function that uses systematic qualitative and quantitative data collection in order to keep activities on track. It has two principle functions, the first is it is a management instrument that facilitates decision making based on evidence. The second is it is a quality improvement process and tool that facilitates improvement of programme activities continually during the life of the programme.

National Adaptation Programmes of Action (NAPAs) - Are prepared by least developed countries (such as Myanmar) to identify their urgent and immediate climate change adaptation needs. Myanmar's National Adaptation Programme for Action to Climate Change 2012 is the current NAPA. The Myanmar Climate Change Strategy and Action Plan 2016-2030 is still in draft form.

Outcomes - Are the intended and/or achieved short- and medium-term effects of an intervention's outputs. Outcomes represent changes in the situation and development conditions that occur between output completion and impact achievement.

Outputs - Are the products and services that result from the completion of activities within a development intervention.

Programme partners - Are organizations and entities assisting to implement programmes, by providing funds or in-kind contributions, and include government departments and ministries, national institutions, international organizations, local communities, non-governmental organizations, academic and research institutions, and private sector entities.

Results - Are the outputs, outcomes, or impacts that stem from a development intervention and that cause changes to a state or condition.

Results-based management - Is a management strategy focusing on performance and the achievement of outputs, outcomes, and impacts. The FishAdapt Programme is a results-based management Programme.

Resilience Index Measurement and Analysis (RIMA) - Resilience Index tools are increasingly being used in all FAO programmes and the RIMA will become the standard tool for FAO in the very near future.

Resilience Index Measurement and Analysis (RIMA), (Modified short version) – This is a short version of the RIMA that is used to track changes in the resilience index during the programme activities.

Scientific and Technical Advisory Panel (STAP) - Provides the GEF with independent advice on the scientific and technical aspects of programmes and policies.

SMART indicators comprise a set of criteria to evaluate objectives.

Specific: The system captures the essence of the desired result by clearly and directly relating to the achievement of an objective and only that objective.

Measurable: The monitoring system and indicators are unambiguously specified so that all parties agree on what they cover and there are practical ways to measure them.

Achievable and Attributable: The system identifies what changes are anticipated as a result of the intervention and whether the results are realistic. Attribution requires that changes in the targeted developmental issue can be linked to the intervention.

Relevant and Realistic: The system establishes levels of performance that are likely to be achieved in a practical manner and that reflect the expectations of stakeholders.

Time-Bound and Targeted: The system allows progress to be tracked in a cost-effective manner at the desired frequency for a set period, with clear identification of the stakeholder group(s) to be affected by the programme.

Stakeholder – This term refers to any person or organization that has an interest in the programme and can influence its success, and those with any interest in the programme's outcome, including consumers and any other key individuals or groups. There is often an overlap, as programme partners are also stakeholders that are directly working with the programme and can influence its success. But other stakeholders such as government departments, customers and consumers may not be working with the programme.

Vulnerability Assessment Survey - A comprehensive vulnerability assessment was undertaken in nine (9) pilot communities, three in each area that the programme will be implemented prior to the final

construction of activities. The outcomes of this assessment were the principle source of information to inform the compilation of the rapid VA's which established the specific needs in each community.

The two step VA approach was required to: a. Comprehensively assess the requirements of the areas in which the programme will be implemented, and b. Tailor the activities to suit each individual community (as described below), whilst staying within the programmatic framework established through the comprehensive assessments.

Vulnerability Assessment Survey/Rapid - A rapid vulnerability assessment was undertaken in every community prior to any activities being implemented in the respective community. The compilation of the rapid VA was based on the findings of the full VA, as described above. The outcomes of this assessment were the principle source of information to inform the need for individual activities in each community.

Table of Contents

Executive Summary	10
Background	11
Objective, Outcomes, and Component Outputs	13
Programme Monitoring, Evaluation and Learning (MEAL), General Notes	16
Current and Projected Constraints	16
Monitoring and Reporting	16
Monitoring, Evaluation and Learning Tools	17
Vulnerability Assessment (Comprehensive)	17
Vulnerability Assessment (Rapid)	18
Baseline Establishment Plan/Baseline Surveys and Impact Assessment Surveys	18
Post-Distribution Monitoring	18
Location Selection	18
Beneficiary Selection	18
Resilience Index Measurement and Analysis (RIMA)	19
Resilience Index Measurement and Analysis (RIMA) – Modified Short Version	19
Accountability to Affected Populations (AAP)	19
FAO M&E Staff Monitoring Implementing Partner Organizations	19
Final Evaluation	20
End-line/Terminal Evaluation	20
Rationale for a Learning Agenda	20
Information Gathering Tools Description and Application	23
Learning Agenda based on Monitoring and Evaluation Activities	26
Preamble and Synopsis	26
Context and Background	27
Learning Agenda Phase One	28
Learning Agenda Phase Two	30
Component 1	54
Information Gathering Tools, Relationship to Activities, Outcome and Output	54
Monitoring, Evaluation, Learning and Implementation Workplan	58
Component 2	78

Information Gathering Tools, Relationship to Activities, Outcome and Outputs.....	78
Monitoring, Evaluation, Learning and Workplan.....	80
Component 3.....	87
Information Gathering Tools, Relationship to Activities, Outcome and Outputs.....	87
Monitoring, Evaluation, Learning and Implementation Workplan.....	89
Component 4.....	95
Information Gathering Tools, Relationship to Activities, Outcome and Outputs.....	95
Monitoring, Evaluation and Learning Workplan.....	97
Annex A. Summary of Climate and Natural Disaster Related Issues from Pilot Communities.....	101
Annex B. Issues for Fishers in Pilot Communities.....	102

Executive Summary

FishAdapt: Strengthening the adaptive capacity and resilience of fisheries and aquaculture-dependent livelihoods in Myanmar Programme (the programme), supports the implementation of Myanmar's National Adaptation Programme of Action (NAPA) to Climate Change (2012). The NAPA identified adaptation priority strategies in the fisheries and aquaculture sector to address the impacts of climate change. Key areas of focus for the programme include, strengthening national capacity, fisheries co-management measures, integrated mangrove fisheries, integrated aquaculture, inland fisheries and small-scale aquaculture, in addition to issues related to land tenure.

The programme, is researching new sustainable alternatives to current practices in the fishing and aquaculture sectors and to build upon existing and emerging Government programming in relevant inland and coastal aquaculture and fisheries areas vulnerable to climate change. The programme will work in partnership with relevant Myanmar Government Departments and Ministries to ensure synergy and integration of activities, to maximize impact. The programme will work at the national level on policies and institutional strengthening using the best practice developed and will implement strengthened adaptation strategies at the community level in the Ayeyarwady Region, Yangon Region and Rakhine State in relation to small scale inland aquaculture development and fishing sectors. These areas were selected by the Myanmar Government in consultation with the Food and Agriculture Organization for the United Nations (FAO) to maximize the strategic value of the programmes work and to maximize complementarity with existing Government, donor and partner work. Vulnerable groups such as the poor, female headed households and women will be targeted for inclusion and assisted to participate in all programme activities and additional regions for programme expansion may be identified as the programme is implemented.

The programme has implemented a formal monitoring system based on Specific, Measurable, Achievable and Attributable, Relevant and Realistic and Time-Bound and Targeted (SMART) indicators. Instigated in a manner that provides accurate and systematic information and facilitates the implementation of a learning process that will enable continual quality improvement. This will ensure the programme is responding to the initial requests and progressive feedback from the beneficiaries and provides evidence-based information to management for decision making. In addition to providing the information required to map progress towards the programme output and outcome targets under both the FAO and Global Environment Facility (GEF) reporting frameworks. This will be achieved using FAO and/or GEF validated tools wherever possible, and where this is not possible, activity specific tools will be constructed using validated research methodologies and protocols.

The monitoring and evaluation plan have an integrated programmatic learning agenda, which relates to all facets of the programme with the learnings applied to all activities in addition to learning questions which relate directly to each activity. Together these will guide the non-technical aspects of programme design and implementation. The overall monitoring, evaluation, learning and implementation plan should be considered a 'live document' that is undergoing continual refinement, and will continually evolve and be updated over the life of the programme. All information gathering activities are being constructed to operate on an electronic format where possible. Information will be gathered in the field on mobile phones and tablets and analyzed in real time. This will facilitate the monitoring and evaluation team being able to provide analyzed data on which decisions can be made to both management and field-based staff with 24 hours of the information being collected. This rapid response capability will facilitate a continual improvement process to be implemented in all activities.

Background

Myanmar's climate is changing, and climate variability already affects fishing and aquaculture communities and related socioeconomic sectors in the country. Some climate change impacts are already observable and there is broad scientific consensus that further change will occur. Even with significant global climate mitigation activities and technologies that reduce greenhouse gas emissions, economic sectors, local communities and natural ecosystems in Myanmar will be strongly affected by climate change as a result of the emissions already in the atmosphere. Adaptation is therefore necessary for reducing Myanmar's vulnerability to climate variability and change.

Myanmar is vulnerable to extreme climate events, which have caused significant loss of life, damage to infrastructure and impacted fishers and fish farmers' livelihoods. Myanmar is also vulnerable to disasters and recently experienced the Tsunami (2004), Cyclone Nargis (2008) and the Giri Storm (2010). These caused significant loss of life, damage to infrastructure and significantly impacted fishers and fish farmers. In order to address these issues, Myanmar has developed Myanmar's National Adaptation Programme of Action (NAPA) to Climate Change (2012), and in 2015, Myanmar outlined a range of mitigation and adaptation actions under its Myanmar's Intended Nationally Determined Contribution (INDC). The FishAdapt programme is working within the NAPA and INDC protocols, and with the Myanmar government to test and improve these protocols.

The fisheries and aquaculture sector in Myanmar are critically important to the country's food and nutrition security and economy, and climate change is forecast to have a significant impact on the sector. For capture fisheries (marine and inland) these impacts include changes in sea surface temperature, higher inland water temperature, changes in ocean currents, changes in the frequency of El-Nino Southern Oscillation (ENSO) events, sea level rise and changing levels of rain and water availability. The fisheries sector and livelihoods dependent on the sector are also under stress from a range of other factors such as Illegal Unreported and Unregulated (IUU) fishing, overfishing and pollution.

The aquaculture sector is also exposed to hazards such as salt-water intrusion, flooding of ponds, shortages in water supply, rising water temperature and invasive species. In addition to ad-hoc development planning altering local ecosystem dynamics and undermining the resilience, integrity and functionality of the systems in the sector.

At present, Myanmar faces significant challenges in addressing these issues and achieving sustainable management and utilization of its aquatic resources. These include weak governance, lack of organizational capacity, non-aligned institutional arrangements, limited technical capacity and knowledge, and limited resources for the development and implementation of adaptation plans.

In order to address these issues and to support the implementation of the 2012 NAPA, the Government of Myanmar requested FAO in collaboration with GEF, Government agencies, development partners, Non-Government Organizations (NGOs) and civil society, to design the FishAdapt programme for submission to the Least Developed Countries Fund (LDCF) for funding. Specifically, the programme was designed to address three main barriers to climate change adaptation:

- Lack of climate resilient sector policies, and limited integration of fisheries specific climate responses into national policies

- Lack of capacity and resources within the sector to support communities in planning and responding to climate related stressors and fisheries and aquaculture adaptation to climate change impacts
- Limited knowledge sharing and communication within the sector and with fisheries and aquaculture dependent communities, in addition to limited coordination and lack of real-time/working level understanding of climate change and the impacts on fisheries, aquaculture and their livelihoods

The overall programme objective is to assist the Myanmar government to enable inland and coastal fishery and aquaculture stakeholders to adapt to climate change by understanding and reducing vulnerabilities, piloting new practices and technologies, and sharing information. Key areas of focus for the programme include strengthening of national, regional, and local regulatory frameworks and adaptive capacities, fisheries co-management measures, integrated mangrove fisheries and aquaculture, inland fisheries and small-scale aquaculture, and critical issues related to land and resource tenure.

The programme builds on existing government and partner programmes and emerging good practices, through adopting an Ecosystem Approach to Fisheries Management (EAFM) and Ecosystem Approach to Aquaculture (EAA). EAFM and EAA provide practical approaches to implement sustainable development for fisheries by identifying and encouraging balance between ecological and human well-being through good governance. These will be applied to enhance the resilience of aquatic ecosystems to climate change impacts, fishing and fish farming activities, and reduce the underlying vulnerability of fishing and fish farming communities.

The programme has been designed to deliver local, and national environmental benefits, with activities that facilitate reporting against the Adaption to Climate Change results under the GEF LDCF and the Special Climate Change Fund (SCCF), and specifically address the GEF LDCF objectives:

- **CCA-1: Reducing Vulnerability:** Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional, and global level. Achieved through all components and notably by *Components 2 and 3*, which aim to reduce climate change vulnerabilities at the community level.
- **CCA-2: Increasing Adaptive Capacity:** Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional, and global level. This will be achieved through *all Programme components*.
- **CCA-3: Adaptation Technology Transfer:** Promote transfer and adoption of adaptation technology. Achieved through all components, but principally *Components 2 and 3*, which will develop and pilot adaptation technologies and practices, and *Component 4*, which will manage and disseminate good practice and lessons.

Objective, Outcomes, and Component Outputs

Objective: To enable inland and coastal fishery and aquaculture stakeholders to adapt to climate change by understanding and reducing vulnerabilities, piloting new practices and technologies, and sharing information.

Expected Outcomes:

Outcome 1: Enhanced capacity of Department of Fisheries (DOF), the Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of, and reduce their vulnerability to, climate change, and disasters and develop/demonstrate critical adaptation practices and technologies.

Outcome 3: Small-scale fish farmers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change and develop and demonstrate critical adaptation practices and technologies.

Outcome 4: Enhanced understanding and access to adaptation practices and technologies enable stakeholders to manage information and scale up adaptation in the fisheries and aquaculture sector.

Outcomes will be achieved through Integrated Components:

Component 1: Strengthen the National, Regional/State and Township level regulatory and policy frameworks to facilitate the adaptive capacities of the fisheries and aquaculture sector

- Work under this component will focus upon strengthening the regulatory and policy framework for adaptation in the fisheries and aquaculture sectors. Programme information and resources will support a national level climate change vulnerability assessment for fisheries and aquaculture, which will inform the policy changes proposed under this component.
- Programme information and resources will enable stakeholders to improve and/or modify fisheries and aquaculture policy, legal and regulatory frameworks to support climate change adaptation principles.
- Special attention will be given to supporting integrated management of mangrove areas with fisheries, aquaculture and other relevant stakeholders.
- Work under this component will strengthen and develop the capacity for co-management in capture fisheries and will work to address key issues related to land tenure as part of Myanmar's ongoing efforts to strengthen its land and resource tenure system.
- Training and capacity building will be an important part of the programmes work in each of the programme components. A capacity needs assessment was conducted during programme preparation and a training programme developed for implementation at full scale-up. Training is being provided at the institutional and individual levels to strengthen capacity across sectors to collaborate and innovate in order to adapt successfully to climate change.
- A system to inform policy and planning through monitoring and assessment of the impacts of climate change on the fisheries and aquaculture sector at community, district and national level was piloted and once fully validated, scaled up

Component 2: Enhance critical adaptation practices demonstrated by fishers and fishing communities in vulnerable coastal and inland water regions of Myanmar

Work under this component will build upon many years of collaboration between FAO and the Myanmar Government on fisheries management. Examples of adaptation practices to be demonstrated and piloted include, but are not limited to the following:

- Community based climate change vulnerability assessments leading to Climate Change Adaptation (CCA) strategies for small-scale capture fisheries and dependent communities
- Community based climate resilient integrated mangrove-fisheries and aquaculture management strategies developed and implemented
- Community based climate resilient planning developed and integrated into fisheries co management systems
- Community-based pilots to improve climate resilient and sustainable fishing practices along the value chain, utilize local level early warning systems, safety and sea

Component 3: Develop and apply adaptation models to strengthen the resilience of Myanmar's aquaculture sector to the impacts of climate change.

Work under this component will build upon other aspects of the many years of collaboration between FAO and the Myanmar Government on fisheries management. The programme will:

- Develop, apply validate and then mainstream adaptation models and risk assessments to strengthen the resilience of Myanmar's aquaculture sector to the impacts of climate change
- Enable stakeholders to adapt aquaculture technologies and practices in response to impacts of climate change through risk reduction strategies and plans developed with target inland and coastal, aquaculture production systems and fish farming communities
- Demonstrate climate change adaptation/risk reduction strategies in the aquaculture sector by helping small-scale aquaculture farmers achieve tangible reductions in climate change related risks, and increased resilience to longer term climate changes and climate-related disasters. Example include, participatory environmental monitoring, aquaculture-based early warning system, diversification of farmed species and production processes, stocks and strains with wider tolerance to environmental changes, and storm-resistant cage and pond construction.
- Develop and implement sustainable, integrated and climate resilient mangrove and aquaculture systems and strategies.

Component 4: Knowledge management, monitoring and evaluation, training and scaling up adaptation practices, lessons learned development and dissemination.

Under this component the programme will:

- Develop and record lessons learned, elaborate cutting-edge training modules to train Ministry of Livestock, Fisheries and Rural Development (MLFRD) representatives and stakeholders in climate change adaptation, and to develop "how-to and why" guidelines for adaptation in the fisheries and aquaculture sectors

- Enable stakeholders at national, regional and local level to have access to improved knowledge and data through development of mechanisms for peer-to-peer learning, systematic long-term approaches to capacity building, and disseminating information on adaptation practices
- Support an information and knowledge sharing platform on aquatic animal disease and water quality concerning the fishery and aquaculture sector developed and in use
- Construct and implement a formal programme monitoring system, which provides systematic information for programmatic learning, management decision making and on progress towards the programme outcome and output targets

Programme Monitoring, Evaluation and Learning (MEAL), General Notes

The programme has a formal monitoring system based on Specific, Measurable, Achievable and Attributable, Relevant and Realistic and Time-Bound and Targeted (SMART) indicators. Instigated in a manner that provides accurate and systematic information to facilitate the implementation of a learning process that enables continual quality improvement. This will ensure the programme is responding to the initial requests and progressive feedback from the beneficiaries and providing evidence-based information to management for decision making. In addition to providing the information required to map progress towards the programme output and outcome targets under both the FAO and GEF reporting frameworks. This will be achieved using FAO and/or GEF validated tools wherever possible, and where this is not possible, activity specific tools have been constructed using validated research methodologies and protocols.

The monitoring and evaluation plan has an integrated programmatic learning agenda, which relates to all facets of the programme with the learnings applied to all activities in addition to learning questions which relate directly to each activity. Together these guide the non-technical aspects of programme design and implementation.

All information gathering activities are being constructed to operate on an electronic format where possible. Information will be gathered in the field on mobile phones and tablets and analyzed in real time. This will facilitate the monitoring and evaluation team being able to provide analyzed data on which decisions can be made to both management and field-based staff with 24 hours of the information being collected. This rapid response capability will facilitate a continual improvement process to be integral within all activities.

The processes outlined in this Monitoring, Evaluation, Learning and implementation plan are based on current and proposed activities, strategies and interventions, many of which at December 2019 are still undergoing validation. As the programme moves towards full-scale, a significant amount of information will be collected that will supplement and refine the information already collated, as described in the multi procedural implementation plan. As this information becomes available this document will be updated accordingly.

Current and Projected Constraints

As the programme is being implemented in areas of Myanmar where conflict between ethnic groups and the Myanmar government regularly occur, it is anticipated that there will be delays in receiving government approval for programme activities at various times over the life of the programme and also delays in receiving permission to travel to the areas of implementation. Strategies to mitigate these delays are being built into the programme implementation, these include early training of local staff to act as 'intermediaries' in activity implementation, and the engagement of local NGOs in the programme areas to work as implementing partners, with an emphasis on Rakhine state. This will allow the programme to continue to make progress if Yangon based staff face travel limitations.

Monitoring and Reporting

The MEAL framework will track indicators at outcome and output levels, in addition to monitoring the quality of implementation and obtaining participant feedback through a series of specifically designed monitoring tools. Including a complimentary baseline (where appropriate and possible) and end-line assessments, a comprehensive Vulnerability Assessment (VA) in 9 pilot communities, rapid VA in all communities, and associated evaluation of decisions made based on the VA. In addition to village profiling,

beneficiary profiling, Knowledge, Attitude and Practices (KAP) Survey, a resilience change index, and an Accountability to Affected Persons (AAP) feedback mechanism.

All of these tools will be used to continually refine the planning and implementation of activities, ensure that all activities are appropriate for the context in which they are implemented, are continually being monitored for ways to improve delivery and content, and also to provide a means of measuring progress and success. Monitoring of the programme progress and performance will be carried out by FAO with the collaboration of government and private agency partners at various times. All M&E activities except for external reviews, such as the mid-term and end-line evaluations will always be under the supervision and oversight of the FAO M&E team. Government and private agency partners will be required to report on a regular basis while FAO field personnel and technical experts will provide guidance and advice on all activities.

FAO will provide the funder GEF with periodical reports detailing activities undertaken, the evolving operational context, main achievements and constraints faced in meeting the programme output indicators and achievement of milestones as defined in the logical framework. Reports will include data disaggregated by ethnicity, gender, age, disability and vulnerability where appropriate to do so.

Monitoring, Evaluation and Learning Tools

Vulnerability Assessment (Comprehensive)

A comprehensive Vulnerability Assessment was undertaken in 9 pilot communities prior to activities being constructed, the assessment was comprised of:

1. High Resolution Village Base maps taken by drones
2. Hazard and Resource Mapping
3. Matrix Ranking of Hazards (Linked to 5)
4. Transect mapping
5. Resource Matrix
6. Historical Timeline of events
7. Wealth Ranking
8. Livelihoods and Hazards calendars
9. Disaster and Climate Risk Assessment by type of hazard
10. Problem Census
11. Venn Diagram
12. The Sustainable Livelihoods Framework and Analysis via CCA and Disaster Risk Management (DRM) lens
13. Gender Roles and Needs Analysis
14. Strengths, Weakness, Opportunity and Threat (SWOT) Analysis

An assessment of the information generated by the VA, and the construction of activities based on this information, was designed in collaboration with technical staff from the programme. This was undertaken at the earliest opportunity to ensure decisions being made to implement activities at full scale were appropriate. A complimentary review at the completion of the programme activities, will evaluate, the effectiveness of the VA in generating useful and appropriate information to design the interventions, and the impact of the interventions.

Vulnerability Assessment (Rapid)

A rapid Vulnerability Assessment was undertaken in all communities prior to activities being implemented. The tools reflect the comprehensive assessment as detailed above and the methodology and range of possible activities for implementation was based on the information generated through the comprehensive assessments detailed above.

Baseline Establishment Plan/Baseline Surveys and Impact Assessment Surveys

There was no comprehensive baseline undertaken prior to programme implementation, as it would have been impractical to do so in the large number of communities where the programme is being implemented. To provide a comparison for assessing change, the programme related activities have three components, the first is a set generic demographic questions, which allow for programme wide comparison, the second is a set of generic technical questions that allow for programmatic evaluation and reporting. The third component allows for specific and specialized assessment and reporting against each different activity in each community. The first and second components were established by the M&E team in conjunction with the technical leads of each sections. The third component was led by the M&E team, with assistance and support provided by the technical lead in each activity sector, and where relevant community leaders.

Post-Distribution Monitoring

A Post-Distribution Monitoring (PDM) assessment will be conducted after the distribution of inputs (fingerlings, fish food, any machinery, tools or measuring instruments and similar inputs). The PDM assessments will be supplemented by individual qualitative interviews (case studies) to ensure that all inputs are high quality and appropriate for the situation and context. This will reinforce the programme management team stay informed on the progress of the programme, in addition to providing an opportunity for beneficiaries to provide feedback to the programme management team.

Location Selection

As activities began, the M&E team collected demographic information from potential locations and villages, building community and village profiles. The profiles included the needs as articulated by the community residents, compilation of the vulnerability assessments undertaken, and any losses, hazards, impediments and other relevant information incurred by the community in recent years. This information was supplemented by data from Government agencies such as the Ministry of Livestock, Fisheries and Rural Development (MLFRD), the Ministry of Agriculture, Livestock and Irrigation (MOALI) and the Ministry of Natural Resources and Environmental Conservation (MONREC), thus ensuring the initial selection was appropriate for the proposed activity and in sync with Government priorities.

Beneficiary Selection

After the location profiling, the M&E team in conjunction with the gender specialist worked to ensure the programme was identifying the most vulnerable within the population and responding to the current needs of individual community members. In addition to ensuring that activities implemented were done so in manner that at the minimum 'does no harm' to any individual, group, ethnicity or religion, and is gender aware, respectful of ethnic and religious diversity and of cultural differences. Beneficiaries will be advised of the various ways in which they can provide feedback to FAO through the AAP committee set up in each community.

Knowledge, Attitude and Practices (KAP) Survey

Best practice in conducting KAP surveys requires a defined time lapse between training and assessment to evaluate if knowledge has been retained, attitude has altered and if practice has changed due to the information transferred in the training. This will, where possible be conducted with all training attendees, and additional assessments will be conducted by FAO later on an ad-hoc basis through individual case studies to supplement and validate this information. A standardized tool will be constructed once the training has been developed by the technical team members and trainers, for use in order to enable both reporting against the KAP indicators at a programmatic level, in addition to being sufficiently adaptable to assess different activities appropriately.

Resilience Index Measurement and Analysis (RIMA)

The RIMA is a tool for measuring the resilience of populations, it is a person (or in this instance household) specific information gathering tool, and therefore it requires that the survey is repeated with the same household with whom it was conducted initially. The RIMA is the preferred tool of FAO and is progressively being implemented in all programmes world-wide. The RIMA has been adapted for the context of the FishAdapt Programme.

Resilience Index Measurement and Analysis (RIMA) – Modified Short Version

This is a short version of the RIMA that is used to track changes in the resilience index during the programme activities. The short version may be conducted two to three times over the life of the activity if the activity spans over 12 months, this will contain only the operative and relevant questions, will take no longer than four to five minutes, and be analyzed in real time.

Adaption to Climate Change results under the GEF Least Developed Countries Fund/Special Climate Change Fund (SCCF)

The programme is required to report directly on the outcomes of the activities under the Adaption to Climate Change GEF LDCF/SCCF results architecture at the mid-term and at the conclusion of the programme, using the Adaption to Climate Change reporting tool.

Accountability to Affected Populations (AAP)

A Community Based Committee is being established in each community, part of the ToR of the committee will be to operate as a community feedback channel, including relaying complaints. Guidelines and ToR for the committees are currently being finalized. A gender focal point that can inform the programme team of any unintended gender related consequences that may occur due to the activities and a communication focal point to facilitate quick and effective communications, will be part of the committee structure.

All feedback will be monitored by FAO M&E team in Yangon and field staff in the programme areas to ensure a timely and appropriate response to all complaints, enquiries or suggestions from beneficiaries. Regarding the selection of beneficiaries, appropriateness and quality of the inputs distributed, training conducted, and the personal and professional conduct of staff. Males and females will be involved equally in a participative manner and equal access to feedback.

FAO M&E Staff Monitoring Implementing Partner Organizations

FAO reserves the right to monitor implementation of the programme and the activities and conduct of all field staff on an ad hoc basis. FAO Officers will travel to the field and speak with beneficiaries in order to both monitor the progression of the programme and to provide a beneficiary feedback mechanism

directly to FAO. Monitors will not necessarily notify the implementing partners prior to their visits, but feedback will be provided to the implementing partner and reports will be shared on request.

Final Evaluation

FAO will conduct an internal final evaluation, which will be undertaken through a collation and analysis of all information gathered throughout the life of the programme.

In Summary: The results of the KAP will describe the difference between the pre and post training knowledge attitudes and perception of programme beneficiaries. The post distribution monitoring assessment will provide feedback on the appropriateness and quality of the inputs, the AAP will assess the overall satisfaction level of programme beneficiaries. The pre and post vulnerability assessment comparison will assess the appropriateness of the intervention strategies by assessing the reduction in vulnerability, and the resilience index will measure changes in the resilience of the beneficiaries.

These assessments will be supplemented by a range of measurements and assessment, that are yet to be finalized, that will target the identification and development of best practice for replication and dissemination. These will be independent of the terminal evaluation, which will be undertaken by an external consultant.

End-line/Terminal Evaluation

To ensure that that programme reporting has been valid and accurate, and to measure the overall impact of the programme, an external end-line/terminal evaluation will be undertaken by an independent consultant prior to final reporting with the assistance of the FAO M&E team.

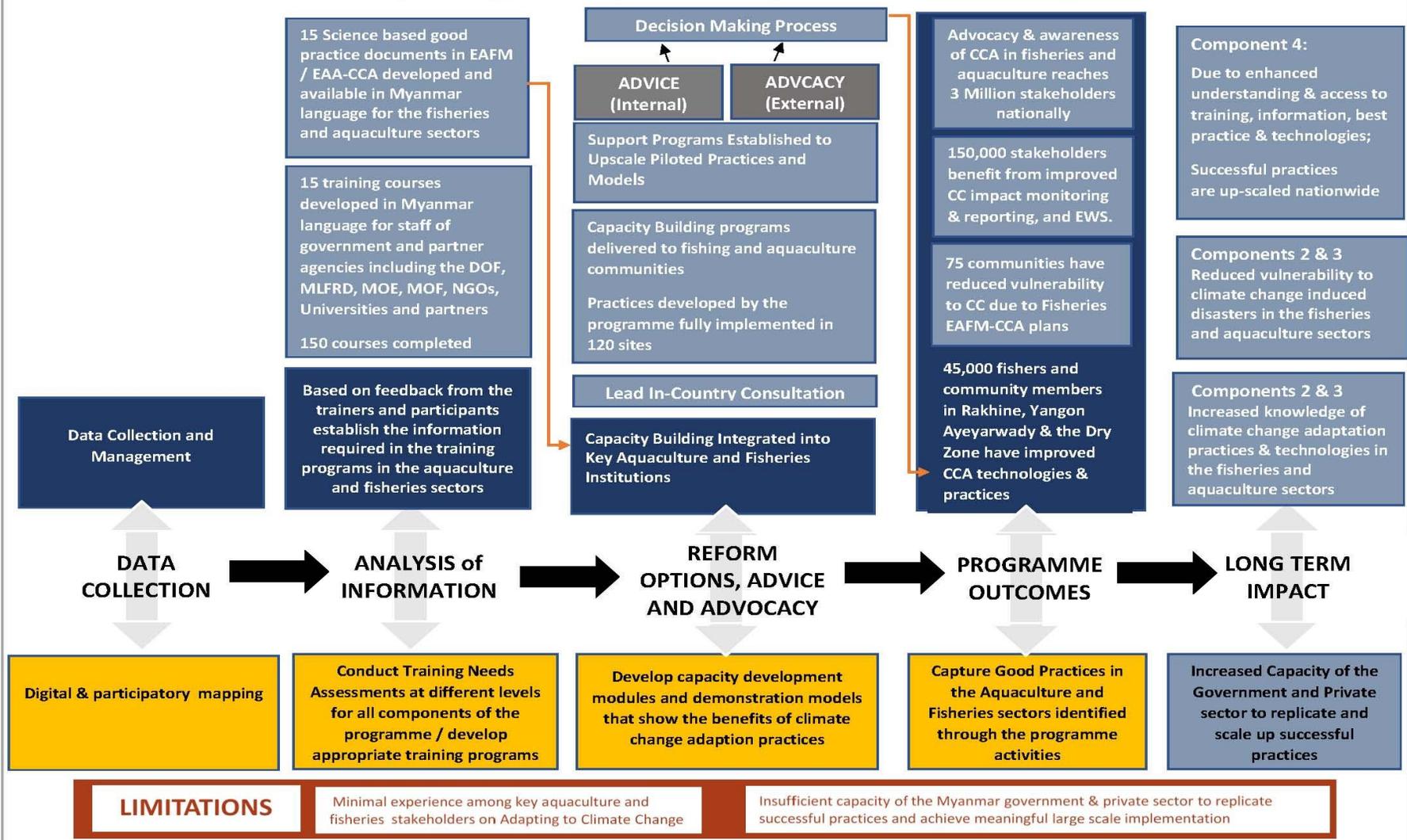
Rationale for a Learning Agenda

The learning agenda of the MEAL plan is an integral component of the FishAdapt Programme, with learning for both internal programme improvement and information sharing based on the learning being 25 percent of the programme deliverables, as detailed in Component 4 of the programme objectives, outcomes and outputs. Within this component, the activities listed below require precise information gathering, analysis and verification, to ensure that only validated best practice is replicated and disseminated.

- 4.1.1.2 Adaptation technologies and practices for development into training modules
- 4.1.1.3 Training programme piloted and then implemented by partners for DOF and NGOs
- 4.1.1.4 Training programme follow up and evaluation along with dissemination, and:
- 4.6.1 Identification of best practice
- 4.6.2 Prepare and review best practice
- 4.6.3 Publish best practice

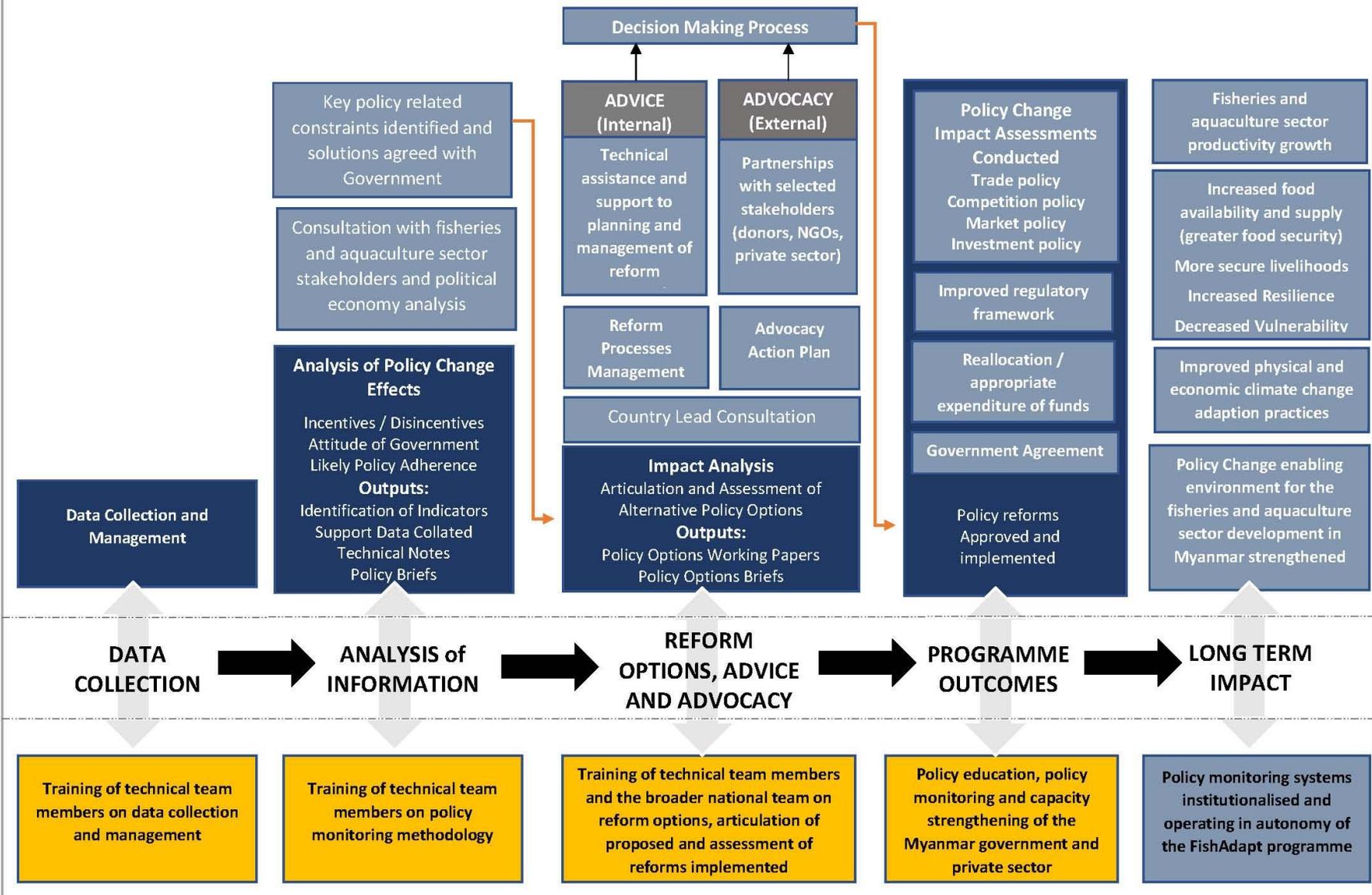
Theory of Change

FishAdapt Programme, Activities, Outcomes and Outputs



Theory of Change

FishAdapt Programme, Climate Change Adaption Policy & Regulatory Change Strategy



Information Gathering Tools Description and Application

Activity	Description	Frequency	Tool	Responsibility
Vulnerability Assessment Survey (Full)	A comprehensive vulnerability assessment was undertaken in 9 communities/3 in each area of programme implementation prior to any activities being constructed, the outcomes of this assessment was the principle source of information to inform the programme parameters	Once in 9 pilot locations	Focus Group Discussions Information was gathered using a range of 'paper based' tools	FAO Disaster Risk Reduction (DRR) staff and technical leads from all programme streams
Vulnerability Assessment Survey (Rapid)	A rapid vulnerability assessment was undertaken in every community prior to any activities being implemented, the outcomes of this assessment was the principle source of information to inform the need for and design of individual activities in each community	Once in all communities where the programme is implemented	Focus Group Discussions Information was gathered using a range of 'paper based' tools and later collated into a computer system	FAO Disaster Risk Reduction (DRR) staff and technical leads from all programme streams
Evaluation/ assessment of intervention strategies	Evaluate the effectiveness and appropriateness of the strategies and activities which the vulnerability assessment identified as being required, appropriate and necessary	All communities where the programme is implemented	Number or percentage of participants is yet to be decided /Survey will be conducted electronically	FAO and/or Partners will collect data/ depending on individual situations
Accountability to Affected Populations (AAP)	Accountability to Affected Populations (AAP) is required to ensure a timely and appropriate response to all complaints, enquiries or suggestions from beneficiaries	As required directly associated with the activities implemented	A committee in each community with dedicated gender mainstreaming and communication positions will provide feedback to the programme staff	FAO and/or Partners will collect data/ depending on individual situations

Activity	Description	Frequency	Tool	Responsibility
Programme Activity specific Monitoring Data (This will be gathered as part of the processes described below)	A range of data will be required based on the activities and location, including: Number of inputs distributed, number of people trained, field visits, interviews and focus group discussions	All activities will be assessed/ number of people assessed is dependent on activity and situation	As advised by FAO M&E Team will be conducted via electronic survey tools	FAO and/or Partners will collect data/ depending on individual situations
Baseline Survey/ Impact Assessment Survey	The baseline and impact assessment surveys will complement each other and provide a standard way to gauge impact and success of individual programme activities	Depending on number involved in activity and situation	Survey via electronic tools	FAO and/or Partners will collect data/depending on individual situations
Mid Term Review	To measure the progress of the programme, a mid-term review will be conducted	Mid-term only	To be defined by the Independent Consultant	Independent Consultant in collaboration with Partners and FAO M&E
Knowledge, Attitude and Practices (KAP) Survey	The survey determines if knowledge has increased, if attitudes have altered and if practices have changed	Conducted before and after training	Designed by FAO M&E team with input from trainers/Survey via electronic tools	FAO and/or Partners /depending on individual situations
Resilience Index	Resilience Index tools are increasingly being used by in all FAO Programmes and the RIMA will become the standard tool for FAO in the very near future This will be conducted soon after the programme starts in each phase and at the conclusion of the programme	500 ² overall, equally divided between locations	Resilience tool, via electronic tools ³	Implementing Partners will collect data in collaboration with FAO

² This figure is the suggested number to ensure validity of the finding and is open for discussion.

³ Resilience index tools are person specific, the survey must be repeated with the same person each time

Activity	Description	Frequency	Tool	Responsibility
Resilience Index (Modified short version)	Resilience index - short version may be conducted 2-3 times over the life of the activity if the activity spans over 12 months, this will contain only the operative questions and will take no longer than 4-5 minutes	Depending on number involved in activity and individual situation	Resilience tool, via electronic tools ⁴	Implementing Partners will collect data in collaboration with FAO
Adaption to CC under the GEF LDCF (SCCF) (Mid-term)	The programme is required to report directly on the outcomes of the activities under the Adaption to Climate Change GEF LDCF SCCF results architecture	As per GEF LDCF SCCF guidelines ⁵	Adaptation Monitoring and Assessment Tool (AMAT) Spreadsheet	FAO and/or Partners depending on individual situations
In-kind contributions status report	The programme is required to report directly on the progress of the in-kind contributions from Government and partners under the GEF LDCF/SCCF	As per GEF LDCF SCCF guidelines	Excel Spreadsheet	FAO and Partners will work together to collate relevant information
News Story (Newsletter) Case Study (Mid-Term) Identification of best practice Case Study (In-Depth for publication)	Case studies will be commenced immediately the activities are being implemented As the information is build up, the emerging stories will be circulated in the newsletters As the depth of the story increases, the case studies will be an important component of the mid-term review to illustrate how the programme is working The case studies will also be a principle source to identify best practice within the programme The final version of the case studies, will track the case over the life of the programme, and provide in-depth information and analysis of the case suitable for publication	The technical team will commence 10 case studies in each thematic area. It is anticipated that for a range of reasons only 50% will be finalized and suitable for publication	All tools in use by the programme, to gather direct and in-direct supporting data and information Strong emphasis on individual discussions with the subject of the case study, and focus group discussions to determine if the case study subject is typical of the 'group'	Led by the international M&E consultant, who will interpret the information and write the case studies Support from the national M&E consultant Information gathered by the technical team members

⁴ This short version of the Resilience index tool is directly related to the larger version and therefore it only valid if conducted with the same person/household as the initial interview

⁵ Updated Results Architecture for Adaptation to Climate Change results under the Least Developed Country Fund and the Special Climate Change Fund, (2018-2022).

Activity	Description	Frequency	Tool	Responsibility
Identification of best practice	The programme is required to identify 10 best practice methodologies	Through the life of the programme	Identified in the case studies, and programme activities then followed up independently	International M&E/National M&E/Technical team members
Most Significant Change	Individual (case study) and group perception (focus group discussion) on what is the most significant change attributable to the programme	Depending on programme activities	To be defined by as activities are implemented	FAO and/or partners will collect data/depending on individual situations
Adaption to CC under the GEF LDCF (SCCF) framework	The programme is required to report directly on the outcomes of the activities under the Adaption to Climate Change GEF LDCF SCCF results architecture	As per GEF LDCF SCCF guidelines	Adaptation Monitoring and Assessment Tool (AMAT) spreadsheet	FAO and/or partners will collect data/depending on individual situations
End-line/ Terminal Evaluation	To measure the outcome of the programme, a terminal evaluation will be conducted	Prior to final reporting	To be defined by the Independent Consultant	Independent Consultant/ support from FAO

Learning Agenda based on Monitoring and Evaluation Activities

Preamble and Synopsis

FAO is seeking to implement a range of strategic initiatives to enable inland and coastal fishery and aquaculture stakeholders in the Ayeyarwady Region, Yangon Region and Rakhine State to adapt to climate change by understanding and reducing vulnerabilities, piloting new practices and technologies, and sharing information. The vital initial learning is how to achieve this in an appropriate and sustainable manner in a multi-ethnic, multi-religion, cross cultural, predominantly military controlled country, prone to spasmodic outbreaks of inter-ethnic violence.

This vital first learning is necessary to ensure that FAO implements the programme in a safe and appropriate manner that does not disadvantage any individual, group, ethnicity or religion and achieves an appropriate balance of female involvement in all programme activities that can be built on as the programme progresses. This learning will be supplemented by a wide range of individual learning processes associated with specific programme activities as detailed in phase two of the learning agenda, which will evolve over the life of the programme. In addition, the learning will facilitate how the interaction of all programme activities can inform the Humanitarian Action, Development Programming and *where appropriate* Conflict Mitigation nexus, which is a central learning theme for FAO programmes.

Informed and guided by the macro level agenda detailed above, the relevant technical lead of each area and with support an oversight from the monitoring and evaluation team, individual programme activities will:

- Develop and record lessons learned, elaborate cutting-edge training modules to train the stakeholders in climate change adaptation, and how to develop simple and effective “how-to” guidelines for adaptation in the fisheries and aquaculture sectors
- Enable stakeholders at national, regional and local level to have access to improved knowledge and data through development of mechanisms for peer-to-peer learning, systematic long-term approaches to capacity building, and dissemination of information on adaptation practices
- Design, implement and support an information and knowledge sharing platform on aquatic animal disease and water quality concerning the fishery and aquaculture sector.

Phase one of the Learning Agenda (LA) was operational in the pilot phase so that the activities that commence as the programme is implemented at full scale can be informed by the information gathered. Following initial programme implementation, phase two of the learning agenda commenced, and now operates in conjunction with phase one. Both phases will continue to inform the field staff and technical team members regarding the activities and interventions for the duration of the programme.

Context and Background

The programme is being implemented in the Ayeyarwady Region, Yangon Region and Rakhine State. Over one million people have been displaced in Northern and Central Rakhine in the period October 2017 to January 2019, with most of those displaced fleeing Myanmar to neighboring Bangladesh. The displacements have disrupted every aspect of life, including agriculture, fisheries and aquaculture, and caused an unknown but certainly vast loss of expertise and knowledge in all these areas. In addition to a very significant loss of skilled and unskilled labor in all aspects of aquaculture and fisheries and the damage of associated infrastructure. There has also been a very significant disruption and in some areas the complete loss of downward supply chains, upward value chains and primary production to market networks. Whilst the Ayeyarwady, and Yangon Regions are not prone to the same level of displacement, the areas are prone to the same influences although at a lower level of severity. In addition to natural and human influenced disasters, and the challenges of implementing programme activities in multi-ethnic, multi-religious, cross cultural contexts.

The information gathering for the FishAdapt programme started in 2015 and informed the preliminary design. Vulnerability assessments were conducted to identify and define the implementation strategies and initial activities of the programme, to ensure the activities and initiatives were appropriate for the population, situation and environment and are achievable and sustainable. The information also sought to identify and understand the severity and the complex underlying causes of the current situation related to fisheries and aquaculture, in a manner that facilitates learning to inform the programme design.

The situation in Myanmar has changed very significantly in the period 2015 to 2019, and the information collected through the Vulnerability Assessments and Village Profiles in 2019 will ensure the programme design as identified in 2015 is still valid and appropriate. Whilst also identifying and testing strategies for female inclusion in all programme activities and to operationalize the Humanitarian Action, Development Programming and Conflict Mitigation nexus through evidence-based, context specific actions and strategic partnerships in the fisheries and aquaculture sector at the state and national levels of Myanmar.

Success in the nexus will be evidenced by the technically correct, gender aware, and culturally appropriate aspects of individual programme activities, the associated implementation strategies, and operational processes at the community level, being appropriate for mobilizing the population towards mutually beneficial interaction.

In addition to fostering gender parity in the general community, promoting inter-ethnic tolerance, reducing the potential for renewed inter-ethnic violence by creating mutual dependence and cooperation and providing a foundation for improving social cohesion due to programme activities being appropriate for the situation, circumstance and population.

Learning Agenda Phase One **(Conducted during the Inception Phase Activities)**

LA-1.1 FAO working appropriately in the current tense inter-ethnic context of Rakhine, and the multi-ethnic, multi-religious cross-cultural contexts of Ayeyarwady, Dry Zone and Yangon Regions. By understanding the current situation and how the situation affects people in their daily lives, with an emphasis on how the situation affects fisheries and aquaculture adaption to climate change practices and related food production, storage, sale, and trade.

Learning questions:

- Understand the current contextual situation and how this affects people in their daily lives, with an emphasis on fisheries and aquaculture related activities?

The comprehensive (9 pilot sites) and rapid vulnerability assessments (111 sites) undertaken provided insights into how the rapidly changing and volatile environment in Myanmar affects people in their everyday lives. The assessments were structured to be focused on fisheries and aquaculture related activities, but to also provide insights into the social and socio-economic situation.

- What is the projected effect of inter-ethnic tension over the life of the programme, and on the programme related infrastructure beyond the life of the programme?

Inter-ethnic tension varies dramatically in different parts of Myanmar, in some areas it is virtually non-existent (Yangon, particularly the more urban areas), in other areas it dominates all aspects of everyday life (Rakhine). The programme has been structured to be aware of the possibility/probability of inter-ethnic tension and activities are structured differently in each community, guided by input from community leaders and local implementing partners.

The programme will not be developing significant infrastructure, but the programme implementation partners are aware of the possibility of inter-ethnic tension having an adverse effect on the small infrastructure components associated with the programme and is fostering mutual benefit and mutual dependence between ethnicities to mitigate the possibility of damage caused by inter-ethnic violence.

- What strategies and activities can the programme implement to reduce existing inter-ethnic tension, foster peaceful, mutually beneficial interaction and improve social cohesion?

Programme activities are guided by input from community leaders and local implementing partners with local knowledge and the programme is fostering awareness of the mutual benefit and mutual interaction required from different ethnic groups involved in the programme to ensure the programme activities continue.

- Has the situation had a greater effect on females in the community, if yes, can the programme implement any strategies to assist in the sector?

All negative situational changes have the greatest effect those already most disadvantaged, as females in Myanmar are predominantly non-empowered and in non-decision-making roles they are more adversely

affected by changes. The programme has a dedicated gender awareness section that advises the most appropriate strategies and methodologies to empower and benefit females in every activity.

Indicators that can be used: All stakeholder interviews, vulnerability assessments, baseline survey/assessment survey, multiple information gathering activities, workshop and community and household focus group discussions. In addition to resilience index outputs, most significant change indicators (individual), group perception on how things have changed (focus group), increase in the number of joint activities, stakeholder interviews at village track level and village level.

LA 1.2 Understanding the effect of the displacement in Rakhine state, on fisheries and aquaculture value chains, production to market networks and associated activities:

Learning questions:

- What is the current rate of displacement in the programme areas?

Dislocation and inter-ethnic violence are high. It was necessary to relocate the programme from the planned implementation sites in Rakhine state to the current sites, due to the volatile security situation in the planned sites. The programme staff are very aware of the role the programme can play in influencing inter-ethnic interaction in either a positive or negative manner, and programme activities are structured accordingly.

Indicators that can be used: All stakeholder interviews, vulnerability assessments, baseline survey/assessment survey, multiple information gathering activities, workshop and community and household focus group discussions. In addition to resilience index outputs, most significant change indicators (individual), group perception on how things have changed (focus group), increase in the number of joint activities, stakeholder interviews at village track level and village level.

From the information gained in 1.1 and 1.2, construct initial programme activities that are aware of, sensitive to, and appropriate for the contextual situation.

LA - 1.3 Application Strategies:

Learning questions:

- Were the means and mechanisms employed in the first two learning questions (above) appropriate for the task?

Yes, the principle objective, which was to raise the awareness of programme staff regarding the power of the programme to influence inter-ethnic interactions during was achieved, and this has resulted in the assessment and design phases being structured appropriately and the programme format being more closely aligned to the needs and expectations of the community.

- What did FAO learn that we did not expect to learn?

The comprehensive VA process was designed as a learning tool and was the key factor in finalizing the implementation of the programme. Through this process FAO was able to gain a clear understanding of the needs and expectations of the communities.

Learning is an on-going process, the FishAdapt programme has a comprehensive learning agenda designed to learn from every activity at every stage of implementation, this will continue for the life of the programme.

- Did the overall process allow for the objectives to be achieved? Which is to: Facilitate FAO being able to implement programme activities that are welcomed by the participants, appropriate to the situation, beneficial to all concerned, achieve the objectives and are sustainable?

Whilst it is still too early in the programme timeline to answer this with certainty, all indicators currently suggest that the programme has been structured and implemented in an appropriate format, to engage the programme participants and work with the communities and achieve outcomes from the programme format that are aligned with the needs of the community.

Indicators that can be used: All stakeholder interviews, vulnerability assessments, baseline survey/assessment survey, multiple information gathering activities, workshop and community and household focus group discussions. In addition to resilience index outputs, most significant change indicators (individual), group perception on how things have changed (focus group), increase in the number of joint activities, stakeholder interviews at village track level and village level.

Learning Agenda Phase Two

The learning activities below are conceptual and are included to act as guiding principles, and to raise the awareness of programme staff as to the power of the programme to influence interaction between groups and communities.

LA-2.1 Humanitarian Action, Development Programming and Conflict Mitigation Nexus⁶

The nexus refers to the inter-linkages between humanitarian orientated action, development programme structuring and *where appropriate*, conflict mitigation strategies, to address the underlying vulnerability in a cohesive and holistic manner. The nexus brings the issue of protection and reducing people's vulnerability to the center of discussion in humanitarian orientated development programmes in conflict prone settings such as Rakhine state in Myanmar.

Where current and/or potential conflict is not as high in the Ayeyarwady, Dry Zone and Yangon Regions, the first two components of the nexus, humanitarian orientated action and development programme structuring are still very important and relevant. The overall approach seeks to capitalize on the capacity of each programme component to reduce current and future need, risk and vulnerability for those receiving services from the programme.

The FishAdapt programme will assess the current vulnerability and formulate vulnerability reduction strategies using a number of different methods including but not limited to; identifying direct livelihoods, assessing joint natural resources management, identifying skill building requirements, identifying appropriate social cohesion strategies associated with every programme activity, and identifying strategies to increase disaster preparedness and response capability.

⁶ The Nexus has been introduced to the programme staff as a guiding principle to raise awareness of the power of the Nexus and to guide implementation processes and procedures.

Key Overall Strategic Goals for Gender Equality and Empowerment of Women and Girls⁷ in Humanitarian Action and Across Humanitarian-Development-Peace Nexus⁸.

Gender inequality is essentially power inequality. This has morphed over many decades and sometimes centuries into cultural norms and expectations about the place of women in the cultural context, and the roles they occupy. As it is power dynamic, it is important not to attempt to disempower any person or group, they will undoubtedly push back against this because they wish to retain their power advantage. The push back will not be against the programme but against the person to whom 'their' power is being transferred, in this case the women that the programme is trying to assist, with the possible outcome they will be further disadvantaged and disempowered.

Therefore, empowerment of the disempowered in a subtle manner with, in a way that the powerful members of the community support, through a long-term agenda for sustainable progressive empowerment, has a much greater chance of being successful.

Existing power inequalities between women, men, girls and boys also tends to exacerbate during difficult times due to different needs, risks, coping strategies and mechanisms, knowledge, situations, realities, and access to and control of resources, decision making and experience. This needs to be taken into consideration when designing programme activities and interventions. As development programmes work in areas of disadvantage in difficult situations and at times when the need is highest, care needs to be taken when implementing programme formats to seek long term change and objectives slowly and with agreement from all parties involved. The principles below should be used as a guide when structuring interventions and activities, that attempt to assist disempowered persons, including women and girls.

1. Advocacy with Government and key stakeholders is increased to uphold the commitments to gender quality and women's empowerment in compliance with the principles of the Convention on the Elimination of Discrimination Against Women (CEDAW), the Beijing Platform for Action, the Sustainable Development Goals (SDGs) and the UN Security Council Resolutions 1325 and 1820. Advocacy is increased for the implementation of the National Strategic Plan for the Advancement of Women (NSPAW), and the recommendations of the Rakhine Advisory Committee (RAC), as well as the adoption and implementation of a CEDAW compliant Protection and Prevention of Violence Against Women (PoVAW) Law.

2. Gender, age and disability disaggregated data is collected, analyzed and used and consultation are conducted equally with women, girls, and the most vulnerable and marginalized groups, across all ages and diversities, including during assessments and in the overall response monitoring. Advocacy is increased with the Government to facilitate assessments for humanitarian and development actors to develop evidence-based programmes.

⁷ These guidelines have been introduced as guiding principles to influence the construction and implementation of the programme activities.

⁸ Inter-Agency Standing Committee Gender Policy and Accountability Framework (2017) Available at: <https://interagencystandingcommittee.org/gender-and-humanitarian-action/documents-public/accountability-framework-iasc-policy-gender-equality>

3. Gender mainstreaming and targeted action for Gender Equality and Empowerment of Women and Girls (GEEWG) is integrated in preparedness, response, and recovery. These are rights-based and gender transformative, meeting the specific needs and priorities of women, girls, and men and boys of all ages and diversities. To guide this process, application of the Inter Agency Standing Committee (IASC) Gender with Age Marker, the IASC Gender in Humanitarian Action Handbook and other IASC global and regional gender in humanitarian action guidance is ensured. Protection mainstreaming throughout humanitarian actions is continued.

4. Positive and healthy constructions of masculinities are promoted and fostered throughout humanitarian actions in order to address the root causes of gender inequalities as fueled by negative power dynamics shaped by restrictive, negative and harmful socio-cultural constructions of gender identities, norms and roles and thereby empower and provide equal opportunities for women, girls, boys and men.

5. Women's economic empowerment is supported through livelihoods and employment interventions (including cash-based programmes wherever feasible and appropriate) ensuring that these activities adequately take gender dynamics into consideration to ensure that they are gender transformative going beyond traditional gender stereotypical divisions of labor instead of perpetuating gender inequality and ensure they minimize risks of potentially contributing to gender-based violence including intimate partner violence. Strategies are adopted that recognize, reduce and redistribute the unpaid care and household responsibilities assigned to women and girls.

6. Leadership, decision-making as well as meaningful, equal representation of women and marginalized groups is promoted and advocated for in overall humanitarian action as well as in the longer-term peace building and development processes.

7. Activities to prevent, mitigate and respond to gender-based violence and sexual exploitation and abuse, especially against women, girls are strengthened and expanded through systematic gender mainstreaming that addresses harmful societal and institutional gender norms and ensuring that gender-based violence response and prevention services are more widely available and accessible to women and girls and that attention to quality and Guiding Principles is upheld through expansion of activities and continued efforts to localize services. To this end, work with men and boys is increased to achieve the goal of gender equality and the empowerment of women and girls in humanitarian action, and to promote positive masculinities.

8. Collaboration and engagement with and capacity strengthening of local women's rights civil society organizations and those working with persons with diverse Sexual Orientation, Gender Identity and Expression and Sexual Characteristics (SOGIESC), and other marginalized groups is increased. Strengthening of work with all ministries and departments of the Government of Myanmar, especially the Department of Social Welfare under the Ministry of Social Welfare, Relief and Resettlement, at Union and State levels with a focus on strengthening their capacities on gender equality and empowerment of women and girls in humanitarian action. Investing in these national stakeholders' capacities to prevent, prepare for and respond to crises and disasters of all types, resourcing them financially, and protecting the spaces in which they can operate, in support of equality, inclusion and localization.

9. Gender balance and adequate numbers of trained competent international and national female staff in the overall response is promoted. This includes ensuring female staff are provided with necessary safety and security measures and are supported through capacity enhancement and mentoring.

10. Advocacy is increased with donors to make financial provisions to fully resource GEEWG programming for both mainstreaming and targeted action, including **by ensuring the application of IASC gender with age marker** and creating specific budget lines for the purpose.

11. Existing multi-stakeholder coordinating bodies to promote gender equality and mainstreaming are strengthened at national and state levels that cut across the humanitarian-development-peace nexus and that goes beyond a focus on Gender Based Violence.

Procedure for Identifying and Targeting Activities:

All stakeholder interviews, vulnerability assessments, baseline survey/assessment survey, multiple information gathering activities, workshop and community and household focus group discussions. In addition to resilience index outputs, most significant change indicators (individual), group perception on how things have changed (focus group), increase in the number of joint activities, stakeholder interviews at village track level and village level.

LA-2.2 Use of Qualitative Indicators to measure changes in Resilience and Vulnerability

FAO will integrate several qualitative, perception-based indicators into the monitoring framework, which will use replicable questions and indicators to gather information on perceptions of change from the programme participants. Analysis of both qualitative and perceptive indicators will validate (or in-validate) the quantitative indicators. This is a reliable tool for assessing applicability of activities and predicting sustainability.

Learning questions

- Does the integration of qualitative and perception indicators result in a better understanding of the Theory of Change?
- Has the information been gained from separate women's and men's groups where appropriate?
- Does the qualitative and perceptive indicator(s) used, capture this successfully, and compliment the quantitative indicators?
- Does the process of data collection for qualitative indicators increase engagement with individual households and the wider community?
- If yes how and why?

It is too early in the programme cycle to answer these questions with certainty. Most of the tools that will use qualitative and perception indicators (such as the RIMA and KAP) are yet to be used in the field. This section will be updated at a later date.

Indicators that can be used: All stakeholder interviews, vulnerability assessments, baseline survey/assessment survey, multiple information gathering activities, workshop and community and household focus group discussions. In addition to resilience index outputs, most significant change indicators (individual), group perception on how things have changed (focus group), increase in the number of joint activities, stakeholder interviews at village track level and village level.

LA-2.3 Use of a Four Generation Monitoring Comparison Approach

The FishAdapt programme plans to apply a Four Generation Monitoring and Learning Approach, to ensure that all proposed programme activities in the pilot areas have been suitably assessed against all indicators prior to large scale implementation and information dissemination. In addition to each area of implementation being assessed and evaluated (based on community feedback) prior to the next phase of implementation, via:

- a) Rigorous analysis of the pilot (first generation) and region by region implementation of activities and sites to test activities and interventions in any given context, which will be following by:
- b) Adaption of strategies and methodology if required prior to the next implementation phase.

Learning questions (It is too early in the Programme to answer the questions below, this section will be updated at a later date).

- Does the use of a multi-generation approach support an improved understanding of intervention effectiveness vs context influence in new situations?
- Has the two-generation approach identified any positive or negative unintended consequences of the activities and interventions?
- Is the process of a multi-generation monitoring as applied in this context appropriate and effective?
- Does the process facilitate or hinder the practice of monitoring and evaluation for effectiveness?
- What did FAO learn that we did not expect to learn?

Indicators that can be used as source: All stakeholder interviews, vulnerability assessments, baseline survey/assessment survey, multiple information gathering activities, workshop and community and household focus group discussions. In addition to resilience index outputs, most significant change indicators (individual), group perception on how things have changed (focus group), increase in the number of joint activities, stakeholder interviews at village track level and village level.

Indicators that can be used as output: All available data from initial activities as detailed above, importance and timing of data collection, and comparison of data sets across generations and timelines.

Component 1: Strengthen the National, Regional/State and Township level regulatory and policy frameworks to facilitate the adaptive capacities of the fisheries and aquaculture sector.

Learning questions

LQ-1.1 *What did the community-based climate change Vulnerability Assessments (VAs) leading to the Climate Change Adaption strategies for small-scale capture fisheries and dependent communities, tell us?*

- The VAs and pre-existing data on climate change in Myanmar were the two primary information sources for the design and implementation of the Climate Change Adaption strategies for small-scale capture fisheries.
- The findings from the assessment(s) regarding gender issues and women's vulnerability, will be updated when the assessment analysis is complete.

- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activities and will be incorporated as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the comprehensive VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a review and assessment of the previous stage will identify the requirement for review of the implementation of the remaining stage(s).
 - Gender awareness and engagement strategies will be implemented in the first stage.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications between the community and the programme staff, will be part of the Community Based Committee structure.

LQ-1.2 On what information did we base the community development and implementation-based climate resilient integrated mangrove-fisheries and aquaculture management strategies?

- The core information was derived from two sources;
 - Conducting an inventory and revision of the relevant Myanmar normative framework governing mangrove management, including not only laws relating to the fishing sector but also those relating to wildlife and forest management. This was completed in conjunction with a review of the international framework and national plans and strategies on climate change and EAFM and EAA.
 - Conducting a comprehensive 14-component VA in nine communities, and from this developing a programmatic strategy, that can be adapted to the needs of individual communities, which is based on a 7-component rapid VA.
- How will this information influence the planning and implementation of activities?
 - The inventory and the review of the national legal and policy framework and identifying existing best practices will identify with precision the gaps on which to implement the activities and thus make the activities more effective.
 - The comprehensive VA and complimentary 7-component rapid VA identify the needs in specific communities.

- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The activities are currently being refined to best fit the needs of the community and the programme outcomes. It is intended that the identification of gaps during the inventory and analysis will allow the programme team to have targeted activities in specific communities that will achieve the outcomes expected.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - At the community level a Community Based Committee, will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - An analysis of what has been implemented in the first stage(s) and the consultation of stakeholders will allow the programme team to adjust the activities and interventions as necessary.

LQ-1.3 On what information was the community the planning, development and integration of the climate resilient into fisheries co-management systems based? How will this information influence the planning and implementation of activities?

- The core information was derived from conducting an inventory and revision of the relevant Myanmar normative framework governing fisheries management, including not only laws relating to the fishing sector but also policies and implementation of the laws. This was completed in conjunction with a review of the international framework and national plans and strategies on climate change and EAFM and EAA.
- Conducting a comprehensive VA in nine communities, and from this developing a programmatic strategy, that can be adapted to the needs of individual communities, which is based on a 7-component rapid VA.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?

- The inventory and the review of the national legal and policy framework and identifying existing best practices will identify with precision the gaps on which to implement the activities and thus make the activities more effective.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - An analysis of what has been implemented in the first stage(s) and the consultation of stakeholders will allow the programme team to adjust activities if necessary.

LQ-1.4 *On what information did we base the community-based pilots to improve climate resilient and sustainable fishing practices along the value chain? How will this information influence the planning and implementation of activities?*

- Value chain analyses.
- Improvements in the value chain will support adaptation planning and the development and diversification of at-risk livelihoods and households.
- Value chain improvements support community members to effectively manage daily fishing catches.
- Gender inclusion and empowerment is a central theme to any proposed adaptations to the value chain and the gender team are developing a plan to ensure this is considered.
- Is the gender inclusive/gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a review and assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
 - Gender awareness and engagement strategies will be implemented in the first stage.
 - The expected outcomes are to understand the market, improve post-harvest technologies and minimize wastage of the product.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities

- A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.

LQ-1.5 On what information did we base the community-based pilots to improve climate resilient and sustainable fishing practices by utilizing local level early warning systems, and safety at sea? How will this information influence the planning and implementation of activities?

- An in-depth analysis of existing Early Warning Systems (EWS), the information gathered during the Vulnerability Assessments and stakeholders' priorities for adaptation and improvement.
- Improved systems that can influence safe storage for boats, strengthen local fishing cooperatives to enable collective action by fisherfolk to address climate change and other collective issues facing the fisheries sector.
- It is unknown as this point the extent to which women are involved in systems such as EWS, as the programme progresses, information from the communities will inform female engagement strategies.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a review and assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
 - Gender awareness and engagement strategies will be implemented in the first stage.
 - Fisherfolk will be of aware the relevant safety procedures when they fish in the sea and have the necessary tools to emergency respond to situations should the need arise.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - The community can improve awareness of safety at sea through sharing information in peer to peer interactions.

Component 2: Enhance critical adaptation practices demonstrated by fishers and fishing communities in vulnerable coastal and inland water regions of Myanmar.

Learning Questions

LQ-2.1 What did the community-based climate change Vulnerability Assessments (VAs) leading to CCA strategies for small-scale capture fisheries and dependent communities tell us, and how will this information influence the planning and implementation of activities?

- The data derived from the VAs generated a comprehensive understanding of the hazards, vulnerability, and adaptive capacity of the communities.
- The information gathered was the primary influence on the planning, design and implementation of activities.
- The use of the wide range of assessment tools and processes, and how information derived from the assessment tools are used in adaptation planning. Was a good training and capacity building exercise for partners and community members who participated. This learning will facilitate community members being able to clearly articulate their needs and propose strategies for meeting these needs.
- The assessment exercise also provided a collaborative adaptation planning process that assists to build awareness, consensus and partnerships for climate change adaptation programme delivery.
- The VAs findings regarding gender issues and women's vulnerability, will be added when the assessment analysis is complete.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The activities implemented are based on the information generated by the VAs, the needs articulated by the community and the requirements of the programme to generate scientific evidence that supports best practice.
 - The activities will be adapted (if necessary) to meet the expected outcomes of the community which ensures active community participation in the programme activities.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities and a communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.

LQ-2.2 On what information did we base the design and implementation of the community-based climate resilient integrated mangrove- aquaculture and fisheries management strategies and how will this information influence the planning and implementation of activities?

- The VAs and pre-existing data on climate change in Myanmar were the two primary information sources for the design and implementation of the community-based climate resilient integrated mangrove-aquaculture and fisheries management strategies.
- The information regarding gender issues and female vulnerability from the assessment will be added when the assessment analysis is complete.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a rapid assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
 - Gender awareness and engagement strategies will be implemented in the first stage.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities.
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.

LQ-2.3 On what information did we base the design, planning and implementation of the community-based climate resilient integrated fisheries co-management systems, and how will this information influence the planning and implementation of activities?

- The VAs and pre-existing data on fishing practice and climate change in Myanmar were the two primary information sources for the design, planning and implementation of the community-based climate resilient integrated fisheries co-management systems.
- The information regarding gender issues and female vulnerability from the assessment will be added when the assessment analysis is complete.
- This will realize a range of socio-economic benefits including the ability to better (co-management) fisheries and adapt to the impact of climate change.

- Identification, planning and implementation of strategies to strengthen livelihoods will be achieved through improved and more sustainable catches, improved post-harvest processing and marketing and livelihoods diversified through a range of alternatives.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a rapid assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
 - Gender awareness and engagement strategies will be implemented in the first stage.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - Co-management and communication between community, DoF and other stakeholders will quickly identify any technically related unintended consequences.
 - Gender inclusion and empowerment is a central theme to any proposals or recommendations on co-management, the gender team are currently developing a plan to achieve this.

LQ-2.4 On what information did we base the design, planning and implementation of the community-based pilots to improve climate resilient and sustainable fishing practices along the value chain, and how will this information influence the planning and implementation of activities?

- Value chain analyses.
- Improvements in the value chain will support adaptation planning and the development and diversification of at-risk livelihoods and households.
- Value chain improvements support community members to effectively manage daily fishing catches.
- Gender inclusion and empowerment is a central theme to any proposed adaptations to the value chain and the gender team are developing a plan to ensure this is considered.

- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a rapid assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
 - Gender awareness and engagement strategies will be implemented in the first stage.
 - The expected outcomes are to understand the market, improve post-harvest technologies and minimize wastage of the product.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.

LQ-2.5 On what information did we base the design, planning and implementation of the community-based pilots to improve utilization of local level early warning systems, to improve safety at sea, and how will this information influence the planning and implementation of activities?

- An in-depth analysis of existing EWS, the information gathered during the VAs and stakeholders’ priorities for adaptation and improvement.
 - Improved systems that influence safe storage for boats, access to insurance for boat owners and crews, strengthening local fishing cooperatives to enable collective action by fisherfolk to address climate change and other issues facing the fisheries sector.
 - It is unknown as this point the extent to which women are involved in systems such as EWS, as the programme progresses, information from the communities will inform female engagement strategies.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
 - How will the activities lead to the outcomes expected?

- The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a rapid assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
- Gender awareness and engagement strategies will be implemented in the first stage.
- Fisherfolk will be aware of the relevant safety procedures when they fish in the sea and have the necessary tools to emergency respond to situations should the need arise.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - The community can improve awareness of safety at sea through sharing information in peer to peer interactions.

Component 3: Develop and apply adaptation models to strengthen the resilience of Myanmar's aquaculture sector to the impacts of climate change.

LQ-3.1 What information did the programme use to develop and apply/mainstream adaptation models and risk assessments to strengthen the resilience of Myanmar's aquaculture sector to the impacts of climate change? How will this information influence the planning and implementation of activities?

- Planning was primarily based on the outcomes/information gathered from the VAs, this was undertaken in nine pilot communities and subsequently validated by the community. Perception (in addition to technical information) about the impacts of climate change and barriers that lead to limitations to the adoption of climate change adaptation planning/strategies were taken into consideration.
- This information gathered was used to build a comprehensive understanding of the hazards, vulnerability, and adaptive capacity of the communities.
- The findings from the assessment regarding gender issues and women's vulnerability, will be updated when the assessment analysis is complete.
- The use of the wide range of assessment tools and processes, and how information derived from the assessment tools are used in adaptation planning was a good training and capacity building exercise for implementing partners and community members who

participated and implementing partners. This will facilitate better interaction with the communities and lead to more informed decision making.

- The VAs provided a collaborative adaptation planning process that helps to build awareness, consensus and partnerships for climate change adaptation programme delivery.
- Based on the results of VAs analysis and validation, implementation of activities will commence upon the completion of activity plans.
- Improvement to governance (stakeholder) by mainstreaming the use of community-based climate change Vulnerability Assessments will lead to better interaction with the communities and lead to more informed decision making.
- Improvement governance (stakeholder) by mainstreaming the use of Indigenous Climate Change Adaption (CCA) and processes for introducing recommendations from the CCA
- Future CCA policy recommendations
- Cost and benefit of adaptation analysis to show feasibility
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes, the assessments were gender inclusive (the number of women participants are in the respective reports).
- How will the activities lead to the outcomes expected?
 - The activities to be implemented are based on the information generated by the VAs, the needs articulated by the community and the requirements of the programme to generate scientific evidence that supports best practice.
 - The activities will be adapted (if necessary) to meet community expectations, the situation in each community and the expected outcomes of the community, this will ensure active community participation in the programme activities.
 - The target number of aquaculture communities (60) will have community based CCA and Disaster Risk Management (DRM) strategies implemented, but it is unknown at this stage if the population target (45,000 direct beneficiaries) will be achieved as this will depend on the available populations of the respective villages.
 - Ecosystem Approach Aquaculture (EAA) training will be conducted at the community level
 - Training and implementation activities will be undertaken at the community level
 - In addition to the CCA and DRM planning, the programme plans to implement the outcomes of the CCA and DRM planning at the community level (e.g. drill training)
 - Mangrove reforestation has been identified a key need in the target communities and this will be a priority for the programme. Assisting to meet the priorities of the community early in the programme cycle, will significantly increase community engagement throughout the programme implementation.

- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities and a communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - As part of the planning, improved linkages to important relevant institutions and social safety networks will be reviewed and strengthened where required.

LQ-3.2 How will the programme enable stakeholders to adapt aquaculture technologies and practices in response to impacts of climate change through risk reduction strategies and plans developed with inland, aquaculture production systems and fish farming communities? How will this information influence the planning and implementation of activities?

- The VAs and pre-existing data on climate change in Myanmar were the two primary information sources for the design and implementation of the inland, aquaculture production systems and fish farming communities.
- The findings from the assessment regarding gender issues and women’s vulnerability, will be updated when the assessment analysis is complete.
- It is envisaged that the extensive community engagement and consultation process used when conducting the VAs will work to improve stakeholder engagement and adoption of CCA and EAA to minimise risk and improve aquaculture yields
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
 - The programme will assess the specific technology and capacity needs of women to benefit of the project and enhance their participation in aquaculture and decision-making.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a rapid assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
 - Gender awareness and engagement strategies will be implemented in the first stage.
 - Rice-fish aquaculture which will link with EAA and CCA
 - Mangrove friendly aquaculture which will link with EAA and CCA will be implemented

- EWS will be linked with CCA and DRM
- Strategies to improve community resource mobilization, including enhancing the participation of women in decision-making will be implemented
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities and a communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - Community will have increased knowledge on CCA and DRM planning and ecosystem management (community-based conservation), and be able to make informed, evidence-based decisions, that minimise potential negative consequences.

LQ-3.3 How will the programme enable stakeholders to adapt aquaculture technologies and practices in response to impacts of climate change through risk reduction strategies and plans developed with coastal, aquaculture production systems and fish farming communities? How will this information influence the planning and implementation of activities?

- The VAs and pre-existing data on coastal, aquaculture production systems, fish farming and climate change in Myanmar are the two primary information sources for the design, planning and implementation of the community-based climate resilient co-management systems.
- The programme will generate a range of socio-economic benefits including the ability to better manage aquaculture production systems and fish farming through co-management and increase adaptation to the impacts of climate change.
- Livelihoods will be strengthened through improved and sustainable catches, improved post-harvest processing and marketing, and diversified through a range of livelihood alternatives.
- The role of women along the supply chain will be recognized and strengthened.
- It is envisaged that the extensive engagement and consultation process used when conducting the VAs analysis will work to improve stakeholder engagement and adoption of CCA and EAA to minimise risk and improve aquaculture yields
- Aquaculture dependent communities will be more inclined to adopt CCA strategies as they are receiving more information, generating knowledge, receiving technical inputs from the programme, and being informed as to the economic benefits of adopting CCA strategies.
- Outcomes of EAA will be presented at the community level so that the community will consider protecting their ecosystems and uptake CCA strategies for long term purposes.

- What the assessment found regarding gender issues and the vulnerability of women, will be added when the assessment analysis is complete.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
 - The outputs will have gender specific indicators to assess the gender impact of the programme.
- How will the activities lead to the outcomes expected?
 - Mangrove friendly aquaculture which will links with EAA and CCA
 - EWS will be linked with CCA and DRM so that the community are aware of the possible impacts of climate change and relocate to safe sites/places
 - Mangrove reforestation and conservation and management by the community
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - The community will have more CCA and DRM knowledge and ecosystem management (community-based conservation) knowledge and awareness, this will facilitate more informed decision making and minimise the potential for negative consequences.

LQ-3.4 How will the programme demonstrate climate change adaptation/risk reduction strategies in aquaculture sector by helping small-scale aquaculture farmers achieve tangible reductions in climate change related risks, and increased resilience? How will this information influence the planning and implementation of activities?

- Semi-structured questionnaires on aquaculture will be provided, generating relevant information for the programme to assess success.
- Case studies will be conducted to track individual cases (families, communities, women's groups, individuals or activities) and gain in-depth information regarding the effectiveness of the strategies implemented.
- It is expected that the extensive engagement and consultation process used when conducting the VAs analysis will work to improve stakeholder engagement and adoption of CCA and EAA to minimise risk and improve aquaculture yields

- Outcomes of EAA will be presented at the community level so that the community would consider protecting their ecosystems and uptake CCA strategies for long term purposes.
- Gender inclusion and empowerment is a central theme to any proposals or recommendations on climate change adaptation/risk reduction strategies, the gender team are currently developing a plan to achieve this.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
 - The programme will help design specific adaptation and risk reduction interventions when necessary to address gender disparities and facilitate the participation of women in the programme.
- How will the activities lead to the outcomes expected?
 - The outcomes will be achieved by a four-stage implementation approach, the first stage is conducting the VAs. This will be followed by a three-stage implementation of the activities in each region. Prior to stages three and four being implemented a rapid assessment of the previous stage will identify the requirement for review of the implementation of the remaining stages.
 - Gender awareness and engagement strategies will be implemented in the first stage.
 - Rice-fish aquaculture co-production will link with EAA and CCA
 - Mangrove friendly aquaculture will link with EAA and CCA
 - EWS will be linked with CCA and DRM
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - Community will have more CCA and DRM knowledge and ecosystem management (community-based conservation)
 - Market value chain analysis by FAO and the community will improve overall production and minimise the possibility of unintentional negative consequences
 - With regards to gender issues, the gender focal points will inform of any achievements, but also unintended consequences that may derive from the activities.

LQ-3.5 How will the programme demonstrate climate change adaptation/risk reduction strategies in aquaculture sector by helping small-scale aquaculture farmers achieve tangible reductions in climate change related risks, and to longer term climate changes and climate-related disasters? How will this information influence the planning and implementation of activities?

- An in-depth analysis of existing Early Warning Systems (EWS), the information gathered during the Vulnerability Assessments and stakeholders' priorities for adaptation and improvement.
- Improved systems can influence all aspects of aquaculture and enable collective action by fish farmers to address climate change and other issues facing the sector. Resulting in:
 - Less fish deaths and more stable incomes from aquaculture
 - Less saltwater intrusion and flooding to aquaculture ponds
 - Better social safety nets and networks, increasing resilience and reducing vulnerability
 - Enhance the participation of women in decision-making
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
 - The programme will use gender indicators to assess the impact of the programme on women
- How will the activities lead to the outcomes expected?
 - EWS will be linked with CCA and DRM
 - Community-based EAA and CCA planning and management
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities and a communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - Community will have increased CCA and DRM knowledge and ecosystem management (community-based conservation), leading to improved and collective decision making, reducing the possibility or unintended consequences.
 - The programme will lessen the impact of changing climate and natural disasters on aquaculture dependent communities and reduce the financial losses and loss of socioeconomic status, which is a direct consequence of low socio-economic status

LQ-3.6 How will the programme develop and implement sustainable, integrated and climate resilient mangrove and aquaculture systems and strategies? How will this information influence the planning and implementation of activities?

- Conducting continuous monitoring and implementation of the outcomes of community-based climate change adaptation planning, will provide the evidence to revise strategies on a continual basis
- Community based mangrove reforestation and conservation and management will be implemented
- Innovative solutions and CCA strategies will be disseminated and shared within the communities
- The outcome will be the enhancement of the resilience of aquaculture dependent communities
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Yes – these are being included in the design of the activity and will be added as the activity plans are finalized.
- How will the activities lead to the outcomes expected?
 - Rice-fish aquaculture which will link with EAA and CCA
 - Mangrove friendly aquaculture which will link with EAA and CCA
 - EWS will be linked with CCA and DRM
 - Increased participation of women in decision-making
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - A Community Based Committee will be established in each community. Part of the ToR of the Community Based Committee will be to operate as a community feedback channel, which will include a complaints mechanism. Guidelines and ToR for the committees are currently being finalised.
 - A gender focal point that will inform the programme team of any unintended gender related consequences that may derive from the activities
 - A communication focal point to facilitate quick and effective communications, will be part of the Community Based Committee structure.
 - The community will have more knowledge on CCA and DRM planning and ecosystem management (community-based conservation), more informed decision and collective decision making and therefore less chance of unintended negative outcomes
 - The programme will lessen the potential impact of changing climate and natural disasters on the aquaculture dependent communities and reduce the economic losses and the subsequent loss of socioeconomic status
 - Higher productivity and higher and more stable incomes are expected

- The gender focal points will inform the programme team of any achievements, but also unintended consequences that may derive from the activities.

Component 4. Knowledge management, monitoring and evaluation, training and scaling up adaptation practices, lessons learned development and dissemination

LQ-4.1 How will the programme develop and record lessons learned, elaborate cutting-edge training modules to train MLFRD representatives and stakeholders in climate change adaptation, to develop “how-to” guidelines for adaptation in fisheries and aquaculture sectors?

- The programme has a comprehensive multi-faceted Monitoring, Evaluation and Learning platform that has guided the non-technical aspects of programme implementation and platform is gathering and assessing information on a continual basis, including components that:
 - Capture, integrate and feedback lessons learnt from all activities conducted and will then disseminate the information through a variety of information sharing arenas
 - Compile comprehensive case studies throughout the life of the programme
 - Conducting M&E training for Department of Fisheries and other stakeholders.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Gender inclusion and parity have been incorporated into all aspects of the programme delivery, information gathering and information sharing.
- How will the activities lead to the outcomes expected?
 - Through the systematic implementation of the Monitoring, Evaluation and Learning platform (See MEAL document for complete structure).
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - Comprehensive community feedback mechanisms have been incorporated into all programme activities and all information gathering and dissemination processes.
 - Periodic external evaluations will also assess the MEAL system and framework.

LQ-4.2 Did the programme enable stakeholders at national, regional and local level to have access to improved knowledge and data through development of mechanisms for peer-to-peer learning, systematic long-term approaches to capacity building, and disseminating information on adaptation practices?

- How will this information influence the planning and implementation of activities?
 - Through initially piloting in nine communities and then up-scaling the roll out of a peer-to-peer information sharing and learning programme

- A wide range of information sharing platforms have been implemented, including a website, phone App, hardcopy leaflets, booklets, integrated training programmes and community committees
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Gender inclusion and parity have been incorporated into all aspects of the programme delivery, information gathering and information sharing.
- How will the activities lead to the outcomes expected?
 - The activities will enable all stakeholders to have access to information on CCA and EWS practices, including best practices as they are developed.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - Implementation of an integrated Monitoring, Evaluation, Learning and Implementation plan
 - Regular monitoring and evaluation
 - In-depth interviews connected to the compilation of case studies
 - Periodic external evaluations.

LQ-4.3 Did the programme establish and support an information and knowledge sharing platform on aquatic animal disease and water quality concerning the fishery and aquaculture sector developed and in use?

- How will this information influence the planning and implementation of activities?
 - The establishment of information and knowledge sharing platform through FishAdapt webpage, phone Apps that are being developed and dissemination through the networks of the FishAdapt program, including World Fish and the Department of Fisheries.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Gender inclusion and parity have been incorporated into all aspects of the programme delivery, information gathering and information sharing.
- How will the activities lead to the outcomes expected?
 - The overall MEAL framework and system will be a central component to the programme achieving the dissemination of best practice, and the enhanced understanding and access of adaptation practices and technologies.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - Implementation of an integrated Monitoring, Evaluation, Learning and Implementation plan
 - Regular monitoring and evaluation

- In-depth interviews connected to the compilation of case studies
- Periodic external evaluations.

LQ-4.5 How will the programme establish a formal programme monitoring system operating implemented providing systematic information on progress in meeting programme outcome and output targets?

- The programme has a comprehensive multi-faceted Monitoring, Evaluation and Learning platform, that has guided the non-technical aspects of programme implementation and the platform is gathering and assessing information on a continual basis, including components that:
 - Capture, integrate and feedback lessons learned from all activities conducted and then disseminate the information through a variety of information sharing arenas
 - Compile comprehensive case studies throughout the life of the programme
 - Conducting M&E training for Department of Fisheries and other stakeholders (training manual has been developed)
 - The establishment of monitoring system for the programme is critical to track the programme against committed targets, workplan and efficiency.
- Are the gender inclusive and gender parity aspects of this activity within the overall programme strategy?
 - Gender inclusion and parity have been incorporated into all aspects of the programme delivery, information gathering and information sharing.
- How will the activities lead to the outcomes expected?
 - By effective use of M&E system, to monitor the implementation activities to be harmonized with outcome and outputs of the programme.
 - The overall MEAL framework and system will be a central component to the programme achieving the dissemination of best practice and the enhanced understanding and access of adaptation practices and technologies.
- How will any positive or negative unintended consequences of the activities or interventions be identified?
 - Implementation of an integrated Monitoring, Evaluation, Learning and Implementation plan
 - Regular monitoring and evaluation
 - In-depth interviews connected to the compilation of case studies
 - Periodic external evaluations

Component 1

Information Gathering Tools, Relationship to Activities, Outcome and Output

Component 1: Strengthen the National, Regional/State and Township level regulatory and policy frameworks to facilitate the adaptive capacities of the fisheries and aquaculture sector.					
Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.					
Baseline	Target	Results	Deliverable	Source of Information	Information Collection
9 Union Fisheries Industry (FI) and Aquaculture (AQ) laws do not integrate CCA in 2015	3	CCA mainstreamed into FI and AQ relevant laws, strategies and policies at Union and local level	Publication	Programme evaluation and actual laws and strategies	Independent evaluation, FAO and Government
15 Region/state level FI and AQ laws do not integrate CCA	14			AMAT score	
FI and AQ in NAPA not mainstreamed into CCA laws and policies	3	FI and AQ mainstreamed into CCA laws and policies	Publication	FI and AQ mainstreamed into NAPA and INDC	Independent evaluation, FAO and Government
Government staff do not have capacity to support CCA in the sector	3,500 (1,200 women)	Capacity of staff improved		Programme reports and KAP surveys	FAO and/or Implementing Partner

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.						
Results Chain	Baseline	Target	Results	Deliverable	Source of Information	Information Collection
<i>Output 1.1: National level climate change vulnerability assessments for fisheries and aquaculture sector carried out.</i>	<i>No Climate Change Vulnerability Assessment exists for the sector at National or State/region and or sub national level</i>	<i>1 (Union) and 14 (Region and State)</i>	<i>Climate Change Vulnerability Assessment of FI and AQ sector at Union/National level and Region/State level</i>	<i>Documents</i>	<i>Publication of assessments and updated assessments and meeting reports</i>	<i>Independent evaluation, FAO and Government</i>
<i>Output 1.2 Myanmar's National Policy on Fisheries Sector and supporting regulatory framework including national aquatic bio-security framework are strengthened.</i>	<i>Climate Change is not integrated into sector laws, policies or strategies at any level, Union/National or State/Region in Rakhine, Ayeyarwady, Yangon</i>	<i>11 Laws, 1 National and 3 in Rakhine, Ayeyarwady, Yangon</i>	<i>Policies (including laws and strategies) strengthened including CCA integrated into National frameworks for biosecurity, fisheries, and aquaculture.</i>	<i>Publication</i>	<i>Draft Revised Laws (law objectives) and strategies published</i>	<i>Independent evaluation, FAO and Government</i>
<i>Output 1.3: Government Policies and Strategies on fisheries and aquaculture sector-specific implications for key land-use planning and resources and adaptation options are in place, with special attention to support integrated management of mangrove areas with fisheries, aquaculture and other stakeholders</i>	<i>Climate Change is not integrated into any sector laws, policies or strategies</i>	<i>1</i>	<i>Policy on land and resource tenure law strengthened to allow integrated mangrove area management with fisheries and aquaculture stakeholders.</i>	<i>Documents</i>	<i>Draft Revised Laws (law objectives); Policy consultation completed</i>	<i>Independent evaluation, FAO and Government</i>

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.						
Results Chain	Baseline	Target	Results	Deliverable	Source of Information	Information Collection
<i>Output 1.4: Land and resource tenure policy, legal and regulatory framework strengthened to capacitate co-management in capture fisheries</i>	<i>Climate Change is not integrated into any sector laws, policies or strategies</i>	3	<i>Land and resource tenure law at National, Region/State level strengthened to enable fisheries co-management and EAFM objectives to be realized.</i>	<i>Documents</i>	<i>Draft Revised Laws</i>	<i>Independent evaluation, FAO and Government</i>
<i>Output 1.5: Institutional strengthening and capacity needs assessment for DOF, other relevant Government of Myanmar agencies, and private sector and training programme developed and applied.</i>	<i>No Institutional Capacity development assessment or plans exist for the sector (no training courses or modules for CC exist. (EAFM course (Bay of Bengal Large Marine Ecosystem (BOBLME)/FAO), EAA (FAO), Myanmar stow net fisheries Co-management approach exists.)</i>	<i>1 Assessment published 1 Capacity Development Plan completed 8 Gender indicators</i>	<i>Institutional assessment⁹ Capacity development plan implemented (3,500¹⁰ stakeholders trained) Training course developed</i>		<i>Assessment published Capacity development plan completed Courses Gender indicators</i>	<i>Independent evaluation, FAO and Government</i>

⁹ Formal institutional capacity development with the DoF and other government agencies will not be conducted, informal capacity development will be conducted on an on-going basis. It was decided that this would be more appropriate to the situation, due to the DoF and the FishAdapt programme having a close working relationship.

¹⁰ The maximum government staff the programme can reach is 2000. Total trained in 2019 was 646, it is planned to train 1278 in 2020, the balance will be made up of participation of committee members and strategic high-ranking government officials. Female participants trained will be approximately 600 of the 2000 total, the lower than anticipated female participation rate is due to the low female participation within the Myanmar government.

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.

Results Chain	Baseline	Target	Results	Deliverable	Source of Information	Information Collection
<i>Output 1.6: A system to inform policy and planning through monitoring and assessment of the impacts of climate change on the fisheries and aquaculture sector at community, district, and national level piloted and scaled up.</i>	<i>No Climate Change monitoring system exists for the fisheries and aquaculture sector</i> <i>No awareness materials in 2015</i>	<i>1 Climate Change monitoring system in place</i> <i>8 National</i> <i>9 State/region</i> <i>3,000,000</i>	<i>Climate Change monitoring system in place</i> <i>National</i> <i>State/region</i>		<i>Pilot monitoring systems in place</i> <i>Survey Sample of fishers and fish farmers surveys</i>	

Monitoring, Evaluation, Learning and Implementation Workplan

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
Output 1.1 National level climate change vulnerability assessments for fisheries and aquaculture sector carried out.								
Outcome 1 / Output 1.1 1.1.1 Development of policy advice on sector vulnerability, impact and development of good practice/policy briefs, science-based studies (for VA see UNFCCC approach)	Outcome will be late in the life of the project. Final policy advice will be generated from all information generated during the life of the programme Information will be suitable for generating future strategies	# of policy advice documents produced	Documents submitted and filed	Zero	Zero	Target # yet to be decided		FISHADAPT as the lead agency in conjunction with DOF/ IFT; WFC; and Universities
Outcome 1 / Output 1.1 1.1.2 Individual and institutional capacity development in VA for partners and development of methodologies for Myanmar	Community Leaders and Implementing Partners receive training in undertaking comprehensive VAs in 9 communities across 3 States	# of community leaders trained	# of training sessions completed	5 ¹¹	N/A	N/A	100%	FISHADAPT
	Implementing Partners will receive Training in undertaking rapid VAs/ once trained they will undertake the Rapid VAs in 111 communities	# of partners trained	# of training sessions completed	4 ¹²	N/A	N/A	100%	FISHADAPT

¹¹ 1 National Level training and 4 Regional level training

¹² 4 Regional level training for partner (additional training required due to change in Implementing Partner), and 1 refresher training

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	LOA has been signed with World Fish to develop methodologies at the sector level	LOA Signed	Signed LOA operating and filed	1 ¹³	N/A	N/A	100%	FISHADAPT
	Involving DOF in conducting the Rapid VAs at the village/township and State levels will build capacity	Training and information sharing	# of training sessions completed	3 ¹⁴	6 ¹⁵			FISHADAPT
Outcome 1 / Output 1.1 1.1.3 Formal CC VA carried out, led by DOF. All levels and all regions/States/townships. Priorities for action identified for FI/AQ and action plan/strategy developed (with indicators). Community level and indigenous knowledge integrated. VAs	DOF staff trained in conducting comprehensive and Rapid VAs at the village/township and State levels	DoF staff trained	# of training sessions completed	6 ¹⁶	N/A	N/A	100%	FISHADAPT
	The capacity of DOF to reassess the VAs of the communities in the in the future will be strengthened, including the identification of individuals within the organizations to receive the training	# of DoF staff trained	KAP /FGD completed	Zero	1 ¹⁷			FISHADAPT

¹³ A second LOA will be signed in 2020, to use the methodologies in assessments

¹⁴ and 3 Regional level training sessions in rapid VAs

¹⁵ Two training sessions in each region

¹⁶ 3 Regional level training and 3 Training sessions in the 9 pilot communities

¹⁷ Actual KAP target number of respondents will be based on the number trained

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
updated at least once during programme life	The VAs of the 9 pilot communities will be updated as part of the overall assessment of success of the programme when the programme is nearing completion	Vulnerability review, designed and undertaken	Results of vulnerability review	Zero	Zero	Review complete		FISHADAPT M&E Team
Outcome 1 / Output 1.1 1.1.4 Communication of findings and good practice to sectors, (link to networks in C4 and all other components). Translated into Myanmar language.	Case Studies will be translated and circulated through workshops, community activities, meetings and through regular programme communications	Case studies compiled	# of case studies compiled and circulated	Zero	Target # will be decided in early 2020			FISHADAPT as the lead & Partners
	Capacity development activities and internal training developed to capture and disseminate good practices and research outcomes	Training and methodology developed	# of best practices captured, developed & disseminated	Zero	Target # will be decided in early 2020			FISHADAPT as the lead & Partners
	Communications disseminated through the programme website	Best practices developed	# of best practices disseminated	Zero	Target # will be decided in early 2020 ¹⁸			FISHADAPT

¹⁸ The communications officer is vacant as at December 2019, this will cause a delay
FishAdapt, Monitoring, Evaluation, Learning and Implementation Plan

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	Community members will be trained in Peer to Peer information dissemination	Training developed	# of training sessions completed	Zero	4 ¹⁹	Target # to be decided		FISHADAPT as the lead & Partners
	Development of a Phone App for disseminating best practice	Phone App developed	Phone App operational	Zero	1	N/A		FISHADAPT
Output 1.2 Myanmar's National Policy on Fisheries Sector and supporting regulatory framework including national aquatic bio-security framework are strengthened.								
Outcome 1 / Output 1.2 1.2.1 Inventory, prioritization and review of relevant Fisheries and Aquaculture national laws and policies in-line with CCA/EAAM/ EAFM/DRM/ vice versa	Inventory of national laws and policies in force or in draft form. Analysis and identification of gaps and needs for alignment, as well as potentialities, in relation with CCA/EAAM/ EAFM/DRM.	# of individual laws and policies reviewed	Policy recommendations	11	Zero			FISHADAPT
		# of recommendations presented		5	6			FISHADAPT
	When completed the legal team will develop a framework that contains recommendations for future legislation and policy development in the areas of:	N/A						

¹⁹ 1Training at the National level and 3 at the regional level

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.

Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	Fisheries ²⁰	Completed	Documents available for use		6			FISHADAPT as the lead with DOF
	Aquaculture ²¹	Completed	Documents available for use		3			FISHADAPT as the lead with DOF
	Climate Change Adaption ²²	Completed	Documents available for use		1			FISHADAPT as the lead with DOF
	Disaster Risk Reduction/ Management ²³	Completed	Documents available for use		1			FISHADAPT as the lead with DOF

²⁰ Recommendations will be completed in 2020, validation and finalisation will be undertaken in 2021

²¹ ibid

²² ibid

²³ ibid

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
Outcome 1 /Output 1.2 1.2.2 Individual and organizational capacity development for DOF, other Government departments, private sector and stakeholders (based on IA and 1.1 (link to 1.5))	Refer to 1.2.1 above for materials developed to support the capacity development After the materials have been developed, the materials will be disseminated through the networks of the programme.	Available for use	Methods of distribution to be identified Eg: Workshop training document distribution	20 ²⁴				FISHADAPT as the lead with DOF
	Training for individuals within institutions and Government Departments will be provided demonstrating why CCA/EAAM/ EAFM/DRM should be considered when developing policies and practices in the Fisheries and Aquaculture sectors	Training Modules Developed	# of training modules developed # of Training sessions conducted # of Participants		2 ²⁵ 4 training sessions ²⁶ 120 ²⁷			

²⁴ 7 VA, 4 EAAM, 4 EAFM & 2 community level refresher training in EAAM & EAFM, & 1 M&E training, including cross cutting training involving the gender and legal sectors

²⁵ One National Level and One Regional Level module

²⁶ One National Level, and three regional level training sessions

²⁷ 30 national level participants including MPs and committee members and 30 participants per region where the programme is implemented

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	Capacity Building training of trainers (ToT)	Training delivered	# of modules developed # of ToT training sessions delivered # of participants	Zero	1 3 ²⁸ 90 ²⁹			
Outcome 1 /Output 1.2 1.2.3 National policy consultation supported to ensure stakeholder engagement and develop consensus on areas of policy strengthening. (Potential for web based to be integrated)	Refer to 1.2.1 above for materials developed to support the capacity development, and; 1.2.2 above for dissemination of information and training of individuals The combination of 1.2.1 and 1.2.2 will support achieving stakeholder engagement	Training and information sharing Modules Developed	# of Training or information sharing sessions conducted # of Participants	1 ³⁰	1 ³¹			FISHADAPT as the lead with DOF

²⁸ One training in each of the regions where the programme is implemented

²⁹ 30 participants per region where the programme is implemented

³⁰ A development workshop to increase the understanding of the legal gaps and needs of fishery and aquaculture sectors was held on 14 November 2019

³¹ A draft analysis document to inform future policy advice was developed during the November 2019 workshop and will be circulated for peer review in 2020

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
			# of learning web page developed		1			
Outcome 1 /Output 1.2 1.2.4 Strengthen policy and regulatory frameworks by assessing the effectiveness and impact of the legal and policy recommendations. These would be reviewed prior to programme completion	The combination of 1.2.1 / 1.2.2 and 1.2.3 will support the development of materials, submission of recommendations and capacity development that will strengthen policy and regulatory frameworks.	Assessment report	# of Assessment Reports	N/A	N/A	1		DOF FISHADAPT MLFRD

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
Output 1.3 Government Policies and Strategies on fisheries and aquaculture sector-specific implications for key land-use planning and resource tenure policies and adaptation options are in place, with special attention to support integrated management of mangrove areas with fisheries, aquaculture and other stakeholders.³²								
Outcome 1 /Output 1.3 1.3.1 Inventory and review of integration of relevant national policies, strategies and frameworks (for coherence and alignment to CCA/EAAM/ EAFM/DRM/ vice versa) including formal and informal	The Legal Team will identify the priorities to be established, review the relevant national and regional policies, strategies and frameworks, and the actual impact of the relevant policies, strategies and frameworks on communities and make appropriate recommendations. (Please see explanation notes under Output 1.3)	Review Completed	Advisory documents produced and available for distribution		1			FISHADAPT as the lead with DOF

³² There have been significant developments regarding land use legislation since the FishAdapt document was drafted in 2015, in particular the Vacant, Fallow and Virgin Land Management Law (2018) has been introduced. In the current political environment land use legislation is not something that the programme could engage with the Government to discuss and providing policy or regulatory advice directly to Government (State Counsellors Office) could put the programme under scrutiny and staff at risk of repercussion. Therefore, it is recommended that policy and regulatory guideline advice, should be developed based on the feedback and outcomes of the programme, and this should be delivered to an intermediary consultant that has already been identified. This person within an established organization has a long term and continual on-going contact with the relevant Government departments in this sector.

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
Outcome 1 /Output 1.3 1.3.2 Capacity development for Policy makers on policy integration (based on IA and 1.1, 1.2. (link to 1.5) and development of consultation strategy and leaders.	Refer to 1.3.1 above for materials developed to support the capacity development After the materials have been developed, the materials will be disseminated through the networks of the programme. Training for individuals within institutions and Government departments will be provided demonstrating why climate change adaptations should be considered when developing policies and practices in the Fisheries and Aquaculture sectors	Capacity development Completed	Documents for capacity development produced and available for use	Zero	7 ³³			FISHADAPT as the lead with DOF
Outcome 1 /Output 1.3 1.3.3 National sector policy consultation supported to ensure full stakeholder engagement and develop consensus on areas of policy strengthening. (Potential for web based to be integrated)	Refer to 1.3.1 above for materials developed to support the capacity development, and 1.3.2 above for dissemination of information and training of individuals	Capacity development Completed	Documents for capacity development produced and available for use	Zero	1			FISHADAPT as the lead with DOF

³³ 1 National level training, 3 Regional level training, and 3 ToT training sessions
 FishAdapt, Monitoring, Evaluation, Learning and Implementation Plan

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	<p>The combination of 1.3.1 and 1.3.2 will support achieving full stakeholder engagement</p> <p>The overall strategy will support Fisheries to Climate Change adaption and Climate Change being taken into consideration when drafting strategies or related to Fisheries</p>							
<p>Outcome 1 /Output 1.3</p> <p>1.3.4 Strengthened policy and regulatory frameworks developed/iterated (and piloted). This may be left at developing advice on policy change). These would be reviewed prior to programme completion</p>	<p>Refer to 1.3.1 Above for materials developed to support the capacity development;</p> <p>1.3.2 Above for dissemination of information and training of individuals, and</p> <p>1.3.3 Above for relevant consultation and engagement.</p> <p>The combination of 1.3.1/1.3.2 and 1.3.3 will support achieving full stakeholder engagement</p> <p>The overall strategy will support Climate Change adaption and Climate Change being considered</p>	Information sharing documents developed	Documents for information sharing produced and available for use	Zero		1		FISHADAPT as the lead with DOF

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	when drafting strategies related to Fisheries As per notes under Output 1.3, and the recommendation above this will proceed only to the development of advice for policy change							
Output 1.4: Land and resource tenure policy, legal and regulatory framework strengthened to capacitate co-management in capture fisheries <i>See notes above under Output 1.3:</i>								
Outcome 1 /Output 1.4 1.4.1 Inventory and review, gap analysis of capture fisheries laws and policies for strengthening co-management ³⁴ <i>(Please see explanation notes under Output 1.3.)</i> <i>The Legal Team will identify the priorities to be established, review the relevant national and regional policies, strategies and</i>		Review completed Information sharing documents developed	Documents for information sharing produced and available for use	6				FISHADAPT as the lead with DOF

³⁴ Agriculture currently has priority in land use under government legislation, this is unlikely to change in the foreseeable future; Therefore, species of rice and fish for integration will be trailed to develop a clear evidence-based strategy that shows aquaculture can be introduced, without having a detrimental effect on agriculture. This will include developing pilots to show suitability and based on existing situations (de-identified) constraints and advice for future policy and include agriculture/ aquaculture dual use in informal land tenure discussions.

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
<i>frameworks, and the actual impact of the relevant policies, strategies and frameworks on communities, and make appropriate recommendations.</i>								
Outcome 1 /Output 1.4 1.4.2 Capacity development in policy development Refer to 1.4.1 above for materials developed to support the capacity development	After the materials have been developed, the materials will be disseminated through the networks of the programme.	Information sharing documents developed	Documents for information sharing produced and available for use	Zero	1			FISHADAPT as the lead with DOF
	Training for individuals within institutions and Government Departments will be provided demonstrating why EAFM integration should be considered when developing policies and practices in the Fisheries and Aquaculture sectors	Training documents developed	Documents for training / information sharing / capacity development available for use	Zero	1			FISHADAPT as the lead with DOF
Outcome 1 /Output 1.4 1.4.3 Policy consultation and revision	The combination of 1.4.1 and 1.4.2 will support achieving full stakeholder engagement	Information sharing documents developed	Documents for information sharing	Zero	1			FISHADAPT as the lead with DOF

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3rd Year Target	% Achieved	Responsible institution / entity
Refer to 1.4.1 above for materials developed to support the capacity development, and; 1.4.2 above for dissemination of information and training of individuals	The overall strategy will support EAFM integration into the development of policies and practices in the Fisheries and Aquaculture sectors		produced and available for use					
Output 1.5: Institutional strengthening and capacity needs assessment for DOF, other relevant Government of Myanmar agencies, and private sector & training programme developed and applied								
Outcome 1 /Output 1.5 1.5.1 Formal Institutional Capacity Assessment completed for Fisheries and Aquaculture sector and related agencies/partners and in relation to CCA	The Legal and Technical Teams will identify the priorities to be reviewed, conduct the assessments, including strategies and frameworks and make appropriate recommendations regarding building capacity in the Fisheries and Aquaculture sector, including relevant agencies and partners in relation to climate change adaption	Review completed Information sharing documents developed	Documents for information sharing produced and available for use					FISHADAPT as the lead with DOF
Outcome 1 /Output 1.5 1.5.2 Identification of Individual and Institutional Capacity Development Gaps to be addressed by FishAdapt and	Following the assessments, materials and associated recommendations will be developed and disseminated	Information sharing documents developed	Documents for information sharing produced	Zero	1			FISHADAPT as the lead with DOF

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
development of CD programme with Partners See 1.5.1: Above regarding conducting assessments.	through the networks of the programme. Capacity development training for individuals within institutions and Government Departments will be provided demonstrating why climate change adaption integration should be considered when developing policies and practices in the Fisheries and Aquaculture sectors		and available for use					
Outcome 1 /Output 1.5 1.5.3 Implementation of effective Individual and institutional CD programme for FishAdapt such as full cycle management training See 1.5.1: Above regarding conducting assessments, and; 1.5.2: Above regarding capacity development training.	The combination of 1.5.1 and 1.5.2 will support achieving full stakeholder engagement, and provide tools and processes for implementing full cycle management training The overall strategy will support CCA integration into the development of policies and practices in the Fisheries and Aquaculture sectors	Information sharing documents developed	Documents for information sharing produced and available for use	1				DOF FISHADAPT

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
Output 1.6 A system to inform policy and planning through monitoring and assessment of the impacts of climate change on the fisheries and aquaculture sector at community, district, and national level piloted and scaled up.								
Outcome 1 / Output 1.6 1.6.1 Monitoring, communication and capacity needs assessed, including special science-based studies	<u>Monitoring;</u> Please see 1.5.4 (Above) for the Monitoring, evaluation and Learning training and implementation programme							FISHADAPT M&E Team
	<u>Communication;</u> Mobile Apps are currently being developed	Phone Apps developed	Phone Apps operational and in use	N/A	1			FISHADAPT
	Peer to Peer information transference training is being developed	Peer to Peer information Training developed	# of Peer to Peer training sessions	N/A	4			FISHADAPT
	A Web Page has been established and is continually being updated and developed in response to feedback	Web page developed	Web page in use and updated regularly	N/A	1			FISHADAPT

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	Community committees are being established in each community to provide a means of group decision making and provide feedback to the programme teams. A communication focal point will be identified in each community (very likely a senior community member that is also part of the community committee) to provide a means of receiving and sending updates to the community quickly and easily.	Committees established	Committees operational	N/A	120			FISHADAPT
		Relevant focal points identified and in place	Relevant focal points are operational	N/A	120			FISHADAPT
Outcome 1 / Output 1.6 1.6.2 Monitoring and assessment capacity developed within sector stakeholders and assessment carried out. (linked to C2 and 3) Please see 1.5.4 (Above) for the Monitoring, evaluation and Learning training and implementation programme	A training manual and power point presentation and has been developed to train implementing partners and community members in the process of monitoring and evaluation. A complimentary training manual based on the activities implemented in each region will be developed when the activities and associated indicators are finalized. This will facilitate community	Training Manual developed	Training Manual in use	Manual developed Activities identified for inclusion in the training manual				FISHADAPT M&E Team

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
	<p>representatives and implementing partners to monitor and evaluate the activities in their community, both over the life of the programme and after the programme has completed.</p> <p>As the programme progresses, training in the tools and processes used in the programme will be developed to ensure community members continue monitoring (EWS, and CCA) after the completion of the programme</p> <p>Links will also be created between implementing partners, communities and the department of planning to ensure DOF continues to engage with the communities after the programme completes</p>							
Outcome 1 / Output 1.6 1.6.3 Monitoring system for sector piloted in 3 vulnerable townships and approach finalized	Pilots will be implemented during the first phase of the programme scale up, and tools and processes	Training Manual reviewed	Revised Training Manual available		Manual revised			FISHADAPT M&E Team

Outcome 1: Enhanced capacity of DOF, Government of Myanmar and private sector stakeholders to address climate change issues through improved relevant national policies and strategies facilitating a climate resilient fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution / entity
See 1.6.2 Above:	revised if required prior to implementation in the later stages							
1.6.4 Capacity of DOF and partner capacity developed, and system scaled up in each State/region	See 1.6.1 / 1.6.2 and 1.6.3 Above: Achieving this output will be the overall result of all capacity development undertaken in the programme	See 1.6.1 / 1.6.2 and 1.6.3 Above:	See 1.6.1 / 1.6.2 and 1.6.3 Above:	See 1.6.1 / 1.6.2 and 1.6.3	See 1.6.1 / 1.6.2 and 1.6.3	See 1.6.1 / 1.6.2 and 1.6.3		FishAdapt

Component 2

Information Gathering Tools, Relationship to Activities, Outcome and Outputs

Baseline	Target	Results	Deliverable	Source of Information	Information Collection
Limited CC adaptation planning through LIFT/Development Programmes exists, not for sector	45,000 (at least 30% women)	Number of people benefiting from the programme		Programme monitoring reports; Survey Sample of fishers and fish farmers surveys; Gender	Independent evaluation, FAO and Government

Results Chain	Baseline	Target	Results	Deliverable	Source of Information	Information Collection
<i>Output 2.1 Climate change vulnerability assessments undertaken in target fishing communities in coastal and inland regions are used to inform action plans and identify key adaptation actions</i>	<i>No Vulnerability Assessments exist for the fisheries and aquaculture sector; 9 underway for the Programme Preparation Grant (PPG) phase.</i>	<i>60</i>	<i>Number of community Vulnerability Assessments completed</i>	<i>Documents</i>	<i>Programme reports</i>	<i>Independent evaluation, FAO and Government</i>
<i>Output 2.2: Community based climate change adaptation and disaster risk management plans developed for target inland and coastal fisheries, including mangrove-fisheries interactions</i>	<i>2015 No Fisheries sector Vulnerability Assessments exist for the fisheries and aquaculture sector 9 underway for the PPG phase.</i>	<i>60 CCA and DRM plans</i> <i>1 Mangrove area plan</i>	<i>Number of community CCA and DRM plans for fisheries based on vulnerability assessments. Mangrove area plans</i>	<i>Documents</i>	<i>Programme reports</i>	<i>FAO and/or Implementing Partner</i>

Results Chain	Baseline	Target	Results	Deliverable	Source of Information	Information Collection
<i>Output 2.3: Critical adaptation technologies and practices piloted with targeted groups (e.g. resource monitoring; fishing gear; post-harvest processing; safety at sea; vessel design, etc.)</i>	<i>No adaptation approaches and technologies exist</i>	<i>45,000 (30% women) people benefiting from the practices</i> <i>10 technologies and practices developed</i>	<i>Number of people benefiting from adaptation technologies and practices developed</i> <i>Number of technologies and practices developed.</i>		<i>Programme reports</i> <i>Good practice documents</i>	
<i>Output 2.4: Community-based early warning system developed, including the use of ICT based information services to enable regular and early warning.</i>	<i>Government systems exist with Department of Meteorology and Hydrology (DMH). No Early Warning System (EWS) system exists for fisheries and aquaculture sector.</i>	<i>1 EWS</i> <i>75,000 (50% women) benefiting from EWS</i>	<i>EWS for Climate impacts and disasters for vulnerable pilot communities developed</i> <i>Number of people benefiting from EWS</i>		<i>Programme reports</i> <i>Programme surveys and assessments</i>	

Monitoring, Evaluation, Learning and Workplan

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change, and disasters and develop/demonstrate critical adaptation practices and technologies

Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output 2.1 Climate change vulnerability assessments undertaken in target fishing communities in coastal and inland regions are used to inform action plans and identify key adaptation actions								
Outcome 2 / Output 2.1 2.1.1 EAFM based CC adaptation approach developed and piloted with partners (based on FAO ITA Programme and EAFM). (linked to TNA and learning needs assessment as basis)	Contributing Activity: Developing Training of Trainer materials in EAFM Capacity Plus. Composed of 5 modules ³⁵							FISHADAPT as the lead with DoF
	1-EAFM capacity plus, ToT and Working with communities training course	# of trainings completed	# of trainings completed	6 ³⁶	3			FISHADAPT
	2- EAFM core team established	# of core team members	Participant attendance	34				
	EAFM Implementing units/groups of people 5-8 in 60 communities. Total 25,000 Fishers ³⁷	# of Implementing units established	# of units functional	10	16 (total of 26)			FISHADAPT

³⁵ See 3.1.1 and 3.1.2 for the five modules of the capacity training

³⁶ 1 National level, 3 regional level and 2 implementing unit training

³⁷ According to information gathered in the village profile, the total number of fishers from the 111 communities is 23,954. When Fishery management unit activities and participation of fishers from nearby communities is added to this number, the estimate number rises to 25,000.

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change, and disasters and develop/demonstrate critical adaptation practices and technologies								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
	Development of rapid VAs	Completed	Rapid VAs available for use	Completed	N/A	N/A	100%	FISHADAPT
	Clustering and characterization of communities based on similarities and differences	Completed	Completed	51	50 ³⁸	N/A		FISHADAPT
	Community feedback mechanism established	# of Feedback mechanism	# of Feedback mechanism functioning		101 1 per community			FISHADAPT
Outcome 2 / Output 2.1 2.1.2 Community consultations carried out in 26 townships (At least 1 village per township)	Training of stakeholders to undertake assessments	Training materials available and in use	# of trainings completed	3				FISHADAPT
	Assessment of Exposure - sensitivity –and adaptive capacity to climate change (Rapid VAs)	Assessment materials developed ³⁹	# Completed	1				FISHADAPT
	Assessment of capacity development	Assessment materials developed	# Completed	1 ⁴⁰	1			FISHADAPT

³⁸ Fisheries target of 60 communities will be overachieved

³⁹ Cross cutting assessments in gender was included in these assessments

⁴⁰ Gender assessment in 9 pilot communities

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change, and disasters and develop/demonstrate critical adaptation practices and technologies								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Outcome 2 / Output 2.1 2.1.3 Community adaptation needs for fisheries identified and agreed	Analysis of assessments under 2.1.2 (above)	Completed	# Completed	51	50			FISHADAPT
	Number of activities, strategies and interventions developed	Development Completed	# Developed ⁴¹	Zero				FISHADAPT
	Number of activities, strategies and interventions implemented	Implemented ⁴²	# Implemented	Zero				FISHADAPT
2 Outcome 2 / Output 2.1 2.1.4 Community needs used to inform policy consultations and science-based studies (C1)	Number of studies initiated	# of Letters of Agreement for studies	# of studies undertaken	Zero	To be decided in early 2020			FISHADAPT
		# of Technical Agreements for studies	# of studies undertaken	Zero	To be decided in early 2020			FISHADAPT

⁴¹ This will be developed in a clustering format of 'units', with a unit defined as the communities that use the same fishing grounds, so this is not one per community

⁴² *ibid*

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change, and disasters and develop/demonstrate critical adaptation practices and technologies								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output 2.2: Community based climate change adaptation and disaster risk management plans developed for target inland and coastal fisheries, including mangrove-fisheries interactions								
Outcome 2 / Output 2.2 2.2.1 Findings from 2.1 used to develop community specific action plans in 120 communities ⁴³	Development of CCA/DRR /EAFM integrated plans	Plans developed	# of plans developed	Zero	101			FISHADAPT
	Implementation of CCA/DRR/EAFM integrated plans	Plans implemented	# of plans implemented	Zero	To be decided in early 2020			FISHADAPT
	Number of case studies to document the development, implementation and effect the plans	# of case studies started	# of case studies completed	Zero	To be decided in early 2020			FISHADAPT
2.2.1 A Phased implementation, based on training /extension CD programme for DOF township/district and NGO officers. Yangon	Phased implementation in 17//#/# ⁴⁴ communities as part of the phased implementation	Phased learning developed	# of plans implemented	17	To be decided in early 2020			FISHADAPT
	Number of case studies to document the process of the phased implementation and adaption process	# of case studies started	# of case studies completed	Zero	To be decided in early 2020			FISHADAPT

⁴³ Number of communities reduced from 200 to 120, due to the withdrawal of the Dry zone from the programme

⁴⁴ The number in the second and third phases is not yet decided

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change, and disasters and develop/demonstrate critical adaptation practices and technologies

Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
2.2.1 B Phased implementation based on training /extension CD programme for DOF township/district and NGO officers. Dry Zone	Dry Zone has been deleted from the project due to operational constrains, number of communities reduced from 200 to 120							
2.2.1 C Phased implementation based on training /extension CD programme for DOF township/district and NGO officers. Ayeyarwady	Phased implementation 16/#/ # communities as part of the phased implementation	Phased learning developed	# of plans implemented	16	To be decided in early 2020			FISHADAPT
	Number of case studies to document the process of the phased implementation and adaption process	# of case studies started	# of case studies completed	Zero	To be decided in early 2020			FISHADAPT
2.2.1 D Phased implementation based on training /extension CD programme for DOF township/district and NGO officers. Rakhine	Phased implementation 18/#/ # communities as part of the phased implementation	Phased learning developed	# of plans implemented	18	To be decided in early 2020			FISHADAPT
	Number of case studies to document the process of the phased implementation and adaption process	# of case studies started	# of case studies completed	Zero	To be decided in early 2020			FISHADAPT

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change, and disasters and develop/demonstrate critical adaptation practices and technologies								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output 2.3 Critical adaptation technologies and practices piloted with targeted groups (e.g. resource monitoring; fishing gear; post-harvest processing; safety at sea; vessel design)								
2 Outcome 2 / Output 2.3 2.3.1 Based on national, sector VA and community VA/needs critical adaptation technologies identified and piloted, EAFM CCA- co management approach and full sector- value chain in pilot regions	Critical (Defined as the most Important for long term results - early warning systems) Adaption Technologies and Integrated plans developed and implemented.	To be decided in early 2020		FISHADAPT				
	Identification of Adaption Technologies & Integrated plans	# of plans identified	# of plans identified	Zero	To be decided in early 2020			FISHADAPT
	Development of Adaption Technologies & Integrated plans	# of plans developed	# of plans developed	Zero	To be decided in early 2020			FISHADAPT
	Implementation of Adaption Technologies & Integrated plans	# of plans implemented	# of plans implemented	Zero	To be decided in early 2020			FISHADAPT
Outcome 2 / Output 2.3 2.3.2 EAFM/CCA/VA Training modules developed for each technology and practice	Identification of training modules required	Modules identified	# of modules	Zero	To be decided in early 2020			FISHADAPT
	Development of training modules	Modules developed	# of modules	Zero	To be decided in early 2020			FISHADAPT

Outcome 2: Fishers in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change, and disasters and develop/demonstrate critical adaptation practices and technologies								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
	Piloting of training modules	Modules piloted	# of modules	Zero	To be decided in early 2020			FISHADAPT
	Dissemination of training modules	Modules disseminated	# of modules	Zero	To be decided in early 2020			FISHADAPT
Output 2.4: Community-based early warning system developed, including the use of ICT based information services to enable regular and early warning.								
Outcome 2 / Output 2.4 2.4.1 EWS needs identified (based on DRM assessment and community consultations) with partners	Multi sector workshop	Completed	Report	Completed				FISHADAPT
	Coordination of existing Early Warning Early Action Systems	EWEAS Coordination	# of EWEAS Coordinated	4 ⁴⁵				FISHADAPT
Outcome 2 / Output 2.4 2.4.2 Capacity development of partners and DRM	Capacity development trainings developed	Trainings developed	# of trainings developed	Zero	To be Completed			FISHADAPT
	Capacity development trainings delivered	Trainings delivered	# of trainings delivered	Zero	To be Completed			FISHADAPT
Outcome 2 / Output 2.4 2.4.3 Implementation of EWEAS within 5 pilot sites (with DMH)	Implementation of Early Warning Early Action Systems	EWEAS implemented	# of EWEAS implemented	Zero	To be Completed			FISHADAPT

⁴⁵ 1 National level and 3 Regional level workshops

Component 3

Information Gathering Tools, Relationship to Activities, Outcome and Outputs

Baseline	Target	Results	Deliverable	Source of Information	Information Collection
No practices and technologies exist.	45,000 (at least 30% women)	Number of people benefiting from improved adaptation technologies and practices		Programme reports	Independent evaluation, FAO and Government

Results Chain	Baseline	Target	Results	Deliverable	Source of Information
<i>Output 3.1. Climate change vulnerability assessments carried out for aquaculture production systems in target coastal and inland regions in order to inform planning and develop adaptation actions.</i>	<i>No plans exist</i>	<i>60</i>		<i>Programme reports</i>	<i>Climate Change VA EAA –CCA</i>
<i>Output 3.2. Climate-related risk reduction strategies and plans developed for target inland and coastal, aquaculture production systems and fish farming communities</i>	<i>No plans exist</i>	<i>60</i>		<i>Programme reports</i>	<i>Climate Change VA</i>
<i>Output 3.3. Critical adaptation technologies and practices piloted with targeted production systems and fish farming communities (e.g. diversification of farmed species and production processes; stocks and strains with wider tolerance to environmental changes; storm resistant cage and pond construction).</i>	<i>No technologies exist</i>	<i>60</i>		<i>Programme reports</i>	<i>Critical adaptation practices and technologies developed.</i>
<i>Output 3.4. Aquaculture-based early warning system developed, including the use of ICT based information services to enable regular and early warning.</i>	<i>No system exists for vulnerable communities</i>	<i>1 EWS for Aquaculture</i>		<i>Programme Reports</i>	<i>Early warning system for Aquaculture Number of people benefiting from EWS in Aquaculture</i>

Results Chain	Baseline	Target	Results	Deliverable	Source of Information
	<i>DMH provide weather and long term forecast and CCA forecast for the country</i>	<i>75,000 people benefit from EWS in Aquaculture</i>			
<i>Output 3.5: Pilot integrated mangrove-aquaculture and rain-fed rice paddy-fish systems assessed and implemented.</i>	<i>No specific systems for CCA exist.</i>	<i>2 Mangrove Aquaculture pilot Rakhine</i> <i>5 Rice-Fish/IPM piloted in Ayeyarwady</i>		<i>Mangrove Aquaculture systems developed</i> <i>Mangrove-Aquaculture piloted in Rakhine</i> <i>Rice-Fish IPM piloted in Ayeyarwady</i>	<i>Programme reports</i>

Monitoring, Evaluation, Learning and Implementation Workplan

Outcome 3. Small-scale fish farmers (Aquaculture) in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change and develop and demonstrate critical adaptation practices and technologies.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output 3.1. Climate change vulnerability assessments carried out for aquaculture production systems in target coastal and inland regions in order to inform planning and develop adaptation actions.								
Outcome 3 / Output 3.1 3.1.1 Climate Change VA methodology for small-scale aquaculture developed (based on EAA/CCA/VA) - policy level for all aquaculture	Rapid VAs conducted	Completed	# VAs completed	23	34			FISHADAPT
	Clustering of communities, based on similarities and differences	Completed	# of clustering completed	13	To be decided in 2020			FISHADAPT
	Training to undertake the rapid VAs	Training developed	# of training delivered	4	6			FISHADAPT
	Generating feedback from the stakeholders/implementing partners/ community members	Feedback process developed	# of feedback received	Zero				FISHADAPT
Outcome 3 / Output 3.1 3.1.2 Capacity Development for partners Developing Training of Trainer in EAA – Capacity Plus, composed of 5 modules: Legal Framework Gender Mainstreaming Disaster Risk Management/ Climate Change Inland Aquaculture Coastal Aquaculture	Capacity development needs identified	Completed	# identified	2	N/A			FISHADAPT
	Capacity development training developed	Completed	# of training developed	5				FISHADAPT
	Capacity development training delivered	Completed	# of training delivered	6				FISHADAPT

Outcome 3. Small-scale fish farmers (Aquaculture) in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change and develop and demonstrate critical adaptation practices and technologies.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Outcome 3 / Output 3.1 3.1.3 VAs for Aquaculture completed	Training programme for implementing partners to undertake VAs developed	Completed	# developed	2	N/A			FISHADAPT
	Training programme for implementing partners to undertake VAs delivered	Completed	# of training delivered	4	6			FISHADAPT
	Vulnerability Assessments completed	Completed	# completed	23	34			FISHADAPT
Output 3.2 Climate-related risk reduction strategies and plans developed for target inland and coastal, aquaculture production systems and fish farming communities								
Outcome 3 / Output 3.2 3.2.1 Capacity development in approaches to Climate Change risk reduction in aquaculture developed	Community Mobilization and Formation	Completed	# of communities mobilized and formed	23	34			FISHADAPT
	CCA package developed			Completed				FISHADAPT
	Development of CCA/DRR/EAA integrated plans	Completed	Document	Zero	Document available for use			FISHADAPT
	Training in CCA/DRR/EAA integrated plans	Training delivered	# of training delivered	Zero	2			FISHADAPT
	Case study of the development, delivery and feedback from communities	# of Case studies started	# of Case studies completed	Zero	To be decided in early 2020			FISHADAPT

Outcome 3. Small-scale fish farmers (Aquaculture) in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change and develop and demonstrate critical adaptation practices and technologies.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Outcome 3 / Output 3.2 3.2.2 Climate Change Adaption plans developed for 60 aquaculture farmer groups (one per community)	Climate Change Adaptation package developed	Completed	# Developed	1				FISHADAPT
	Climate Change Adaptation packaged delivered	Completed	# of training delivered	Zero	3 - regions			
	Climate Change Adaptation planning by Implementation Units	Completed	# IU completed CCA plans		To be decided in early 2020			
	CCA community based participatory planning	Completed	# of communities which have CCA plans		To be decided in early 2020			
	Implementation of Climate Change Adaption Plans	Completed	# of plans implemented	Zero				FISHADAPT
Outcome 3 / Output 3.2 3.2.3 Development of climate proof Biosecurity framework.	Assess existing Biosecurity framework ⁴⁶	Completed	Document	Document available for use	1			FISHADAPT
	Identify factors that need to be included in revision ⁴⁷	Completed	Document	Document available for use	1			FISHADAPT
	National level workshop for Biosecurity Framework	Completed	# of event		1			

⁴⁶ A Letter of Agreement will be signed with Yangon University in early 2020 (preliminary discussion have been completed and agreement in principle has been reached).

⁴⁷ National level

Outcome 3. Small-scale fish farmers (Aquaculture) in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change and develop and demonstrate critical adaptation practices and technologies.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3rd Year Target	% Achieved	Responsible institution/ entity
	Develop framework(s) and recommendation(s) for Government	Completed	Document	Document available for use	1			FISHADAPT
Output 3.3 Critical adaptation technologies and practices piloted with targeted production systems and fish farming communities (e.g. diversification of farmed species and production processes; stocks and strains with wider tolerance to environmental changes; storm resistant cage and pond construction).								
Outcome 3 / Output 3.3 3.3.1 Based on national, sector VA and Community VA/needs Critical adaptation technologies identified and piloted, EAA / CCA, full sector-inputs and value chain.	Critical (Most Important for long term results) Adaption Technologies identified	Completed	# identified	Zero	To be decided in early 2020			FISHADAPT
	Critical (Most important for long term results) Adaption Technologies piloted	Completed	# piloted	Zero	To be decided in early 2020			FISHADAPT
	Case study of the development, delivery and feedback from communities	# of Case Studies started	# completed	Zero	To be decided in early 2020			FISHADAPT M&E Team
Output 3.4 Aquaculture-based early warning system developed, including the use of ICT based information services to enable regular and early warning								
Outcome 3 / Output 3.4 3.4.1 EWS needs identified (based on DRM assessment and community consultations)	EWEAs technical implementation workshop (National Level)	Completed	# of workshop # of document	1	Documents completed			FISHADAPT DOF
	EWEAs community implementation workshops (Regional Level)	Completed	# of workshop	3	Zero			
	EWEAs Training (Regional Level)	Completed	# of training # of participants		3 90			

Outcome 3. Small-scale fish farmers (Aquaculture) in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change and develop and demonstrate critical adaptation practices and technologies.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
	Identified focal persons for EWEAs from existing committees	Completed	# of community with EWEAs focal person	23 ⁴⁸				
Outcome 3 / Output 3.4 3.4.2 Capacity development of partners and DRM	Contributing Activities: Capacity development training developed	Completed	Training in use	Zero	1			FISHADAPT
	Training delivered	Completed	# of training delivered	Zero	3			
	KAP Assessment follow up	KAP developed	KAP completed and results analyzed	Zero	Timeline to be finalized in early 2020			
Outcome 3 / Output 3.4 3.4.3 Implementation of EWS with responsible agency	Implementation of EWEAS with mobile applications	Completed	# of EWS implemented	Zero	57			FISHADAPT
	Pilot EWEAs in Fisheries and Aquaculture communities	Completed	# of pilots		20			

⁴⁸ This is the 1st Batch of Aquaculture communities/villages
FishAdapt, Monitoring, Evaluation, Learning and Implementation Plan

Outcome 3. Small-scale fish farmers (Aquaculture) in coastal and inland water regions of Myanmar increase their knowledge of and reduce their vulnerability to climate change and develop and demonstrate critical adaptation practices and technologies.

Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output.3.5 Pilot integrated mangrove-aquaculture and rainfed rice paddy-fish systems assessed and implemented.								
Outcome 3 / Output 3.5 3.5.1 Pilot integrated mangrove-aquaculture and rain-fed rice paddy-fish systems assessed and implemented. The Small Indigenous Species (SIS) systems are critical for many farmers	Pilots developed for anticipated/predicted future conditions due to climate change (Very specific sites)	Pilots developed and ready for use	Document	Zero	2			DOF/ FISHADAPT
	Mangrove-Aquaculture Sites identified	Completed	Document	Zero	5 ⁴⁹			DOF/ FISHADAPT
	Mangrove – Aquaculture Pilot Programmes Implemented	Completed	# implemented	Zero	2			DOF/ FISHADAPT
	Feedback from mangrove – aquaculture pilot sites gathered	Completed	# Results of pilot gathered	Zero	2			DOF/ FISHADAPT
		Completed	# Received	Zero	5			DOF/ FISHADAPT
	Rain-fed rice paddy – fish system Sites identified	Completed	Document	Zero	10 ⁵⁰			DOF/ FISHADAPT
	Rain-fed rice paddy – fish system Pilot Programmes Implemented	Completed	# implemented	Zero	5			DOF/ FISHADAPT
	Rain-fed rice paddy – fish system Feedback from pilot sites gathered	Completed	# Results of pilot	Zero	5			DOF/ FISHADAPT

⁴⁹ Ayeyarwady and Rakhine

⁵⁰ Yangon and Ayeyarwady

Component 4

Information Gathering Tools, Relationship to Activities, Outcome and Outputs

Baseline	Target	Results	Deliverable	Source of Information	Information Collection
No awareness raising activities undertaken	3,000,000 people benefiting from information received	Number of people benefiting from receiving information dissemination, associated with awareness raising activities		Programme reports Programme impact validation sub surveys Programme monitoring	Independent evaluation, FAO and Government

Results Chain	Baseline	Target	Results	Deliverable	Source of Information
<i>Output 4.1. Cutting edge training modules and how -to" guidelines for fisheries and aquaculture stakeholders developed.</i>	<i>No Manuals exist for CCA adaptation in fisheries and aquaculture sector in Myanmar</i>	<i>13 Training Manuals</i>		<i>Training modules EAFM-CCA EAA-CCA Mangrove-Aquaculture Rice Fish</i>	<i>Programme reports</i>
<i>Output 4.2. Peer-to-peer learning programme targeting fishers and fish farmers implemented to provide access to improved knowledge on climate variability, climate impacts and adaptation options.</i>	<i>MFF have network CCA P2P does not exist</i>	<i>35 Peer to peer programmes</i>		<i>Fisher and fish farmer peer to peer programme</i>	<i>Programme reports</i>
<i>Output 4.3. Information and knowledge sharing platform on aquatic animal disease and water quality concerning the fishery and aquaculture sector developed and in use</i>	<i>Information sharing platform for CCA does not exist MFF and DOF have networks Myafish network,</i>	<i>1 Information Sharing Platform 150,000 people benefit through receiving</i>		<i>National Fisheries and aquaculture network strengthened for CCA Number of people receiving information from the programme</i>	<i>Platform exists. Sample Survey by FISHADAPT</i>

Results Chain	Baseline	Target	Results	Deliverable	Source of Information
	<i>Public awareness raising not done</i>	<i>information from the programme</i>			
<i>Output 4.4. Programme monitoring system operating implemented providing systematic information on progress in meeting programme outcome and output targets</i>	<i>No M&E system</i>	<i>1 M&E system</i>		<i>Monitoring and Evaluation system</i>	<i>Monitoring and evaluation plan developed and implemented Minutes of progress monitoring meetings</i>
<i>Output 4.5. Midterm and final evaluation conducted</i>	<i>No evaluations</i>		<i>2 evaluations</i>	<i>2 evaluations</i>	<i>Evaluations</i>
<i>Output 4.6. Programme-related “best-practices” and “lessons-learned” published</i>	<i>No documents exist.</i>		<i>10 documents</i>	<i>documents</i>	<i>Documents published</i>

Monitoring, Evaluation and Learning Workplan

Outcome 4. Enhanced understanding and access to adaptation practices and technologies enable stakeholders to manage information and scale up adaptation in the fisheries and aquaculture sector.

Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output 4.1. Cutting edge training modules and how -to" guidelines for fisheries and aquaculture stakeholders developed.								
Outcome 4 / Output 4.1		Completed	# completed		1			DOF/ FISHADAPT
4.1.1 Support to systematic CD and TNA assessment (linked to IA in C1) completed by key training partners of stakeholders	No sub activities							
4.1.2 Adaptation technologies and practices for development into training modules	No sub activities	Completed	# developed	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.1.3 Training programme piloted and then implemented by partners for (DOF/NGO and partners)	No sub activities	Completed	# Piloted	N/A	To be decided in mid-2020			DOF/ FISHADAPT
	No sub activities	Completed	# Implemented	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.1.4 Training programme follow up and evaluation along with dissemination	No sub activities	Completed	Training completed	N/A	To be decided in mid-2020			DOF/ FISHADAPT

Outcome 4. Enhanced understanding and access to adaptation practices and technologies enable stakeholders to manage information and scale up adaptation in the fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output 4.2. Peer-to-peer learning programme targeting fishers and fish farmers implemented to provide access to improved knowledge on climate variability, climate impacts, and adaptation options.⁵¹								
Outcome 4 / Output 4.2	No sub activities	Completed	# developed	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.2.1 A Based on CD/TNA assessments Exchange programmes developed - MFF network strengthened for CCA	No sub activities	Completed	# developed	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.2.1 B Based on CD/TNA assessments Exchange programmes developed- Worldfish/University networks strengthened for CCA	No sub activities	Completed	# engaged & informed	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.2.1 C Based on CD/TNA assessments Exchange programmes developed - National and global networks engaged and informed (NAP-GSP)	No sub activities	Completed	# identified & developed	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.2.1 D Based on CD/TNA assessments Exchange programmes developed - Lessons learned developed and published	No sub activities	Completed	# published	N/A	To be decided in mid-2020			DOF/ FISHADAPT
	No sub activities	Completed	# of exchanges	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.2.1 E Based on CD/TNA assessments Exchange programmes developed -	No sub activities	Completed						DOF/ FISHADAPT

⁵¹ There are 35 targeted exchange programmes under consideration, but no final decisions have been made, this will be progressed in 2020.

Outcome 4. Enhanced understanding and access to adaptation practices and technologies enable stakeholders to manage information and scale up adaptation in the fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3rd Year Target	% Achieved	Responsible institution/ entity
Peer-to-peer/community-to-community exchanges organized								
Output 4.1.3. Information and knowledge sharing platform on aquatic animal disease and water quality concerning the fishery and aquaculture sector developed and in use								
Outcome 4 / Output 4.3 4.3.1 Review of existing networks	No sub activities	Completed	Document	N/A	To be decided in mid-2020			DOF/ FISHADAPT
4.3.2 Strengthening of existing networks and/or development of new networks	No sub activities	Completed	# of networks developed	N/A	1			DOF/ FISHADAPT
4.3.3 Development of DOF CCA/CC coordination unit	No sub activities	Completed	Document	N/A	1			DOF/ FISHADAPT
Output 4.4. Programme monitoring system operating implemented providing systematic information on progress in meeting Programme outcome and output targets								
Outcome 4 / Output 4.4 4.4.1 Development of Programme M&E system	No sub activities	Completed	Document	Completed			100%	FISHADAPT
4.4.2 Programme baseline surveys ⁵²	N/A	N/A	N/A	N/A	N/A	N/A	N/A	FISHADAPT
4.4.3 Programme progress reports	No sub activities	Completed	# of reports	Monthly, quarterly and annually	Monthly, quarterly and annually			FISHADAPT

⁵² In most cases there are no baselines, this was part of the original programme design and has been confirmed as being correct by the senior technical lead based in Bangkok.
FishAdapt, Monitoring, Evaluation, Learning and Implementation Plan

Outcome 4. Enhanced understanding and access to adaptation practices and technologies enable stakeholders to manage information and scale up adaptation in the fisheries and aquaculture sector.								
Modules	Activities	SMART Indicators	Data Collection Method	Target December 2019	Target December 2020	3 rd Year Target	% Achieved	Responsible institution/ entity
Output 4.5. Midterm and final evaluation conducted								
4.5.1 Mid Term review	No sub activities	Completed	Document		Completed			FISHADAPT
4.5.2 Terminal evaluation	No sub activities	Completed	Document					FISHADAPT
4.6. Programme-related “best-practices” and “lessons-learned” published								
4.6.1 Identification of best practice	No sub activities	Completed	# identified	N/A	To be decided in mid-2020			FISHADAPT
4.6.2 Prepare and review best practice	No sub activities	Completed	# reviewed	N/A	To be decided in mid-2020			FISHADAPT
4.6.3 Publish best practice	No sub activities	Completed	# published	N/A	To be decided in mid-2020			FISHADAPT

Annex A. Summary of Climate and Natural Disaster Related Issues from Pilot Communities

Table 1 Summary of Climate and natural disaster related issues from Pilot communities (assessment undertaken in 2015).

Hazard	Coping strategy	Solution
Malar Storm (1995)	Borrowing money from the relatives and friends.	Rebuilding the damaged houses with self-reliance system. EWS needed
Tsunami (1999)	Information sharing and collecting some money from the rich families other.	Repair the houses and raising the awareness about the disaster.
In 2000 2 x Flood and broken embankment	Moving to another high place	Establish village embankment with all villagers' participation.
Cyclone Nargis (in 2008)	Report to township administration office and Information sharing with other individuals, company and NGOs.	Repairing houses and roofing
Broken village embankment And Soil erosion	To repair with community participation.	Repair the part of the village embankment by the labor supports of the villagers urgently.
Unusual rains	None	Replantation and conservation on mangrove. Awareness raising and plantation trees with stakeholders' participation and supports. Repairing the embankment.
Unusual river currents	None, don't fish	No solution
High temperature	Mangrove trees plantation	Embankment constructed

The Programme Preparation Grant (PPG) assessments confirmed that overall fishers had a range of problems related to weak natural resources management and lack of fish to catch.

Annex B. Issues for Fishers in Pilot Communities

Table 2 Issues for fishers in Pilot communities (assessment undertaken in 2015).

Issue	Impact	Community suggestion
No new livelihoods or new livelihoods technologies	Fishers, fish farmers face no regular income plus losses of food supply and storage issues	Provide livelihoods skills training; create jobs opportunities for both women and men
Catching less fish (reduced amount) in all areas	Drop year on year in catch, reduced income and debt	Enforcement of laws, demarcation of grounds, improve management
Conflict between fishing groups	Becoming worse year by year due to reduced catches, consequently decreasing income.	Improve management (EAFM), Fishing gears screening carefully by authorized organization and enforcement
Difficult to find loans (In all villages)	Loans are needed to prepare for fishing season. They had to borrow money with high interest rate or take advanced money from collecting centers/employers	Linkage NGOs or International Non-Government Organizations (INGOs) or Government organizations that can lend money to them without interest or with low interest rate.
Market problems	Difficulty selling fish, poor process and less income	Training for processing technologies (processing, at the time of market glut), linkage with the organizations that can help to get good market for fishers
Not sufficient ice	All the catch can't be sold with high price (some are rotten in the boat)	More ice factories are needed.
Lack of fishery technology	Limited fishing technology means lower catches and fewer species.	Training from Government or INGOs or NGOs in new fishing technology including processing.
Lack of investment for fishing gear	Fishers need to replace gear when it is lost or destroyed. In the past they were able to save to do this but now they cannot do this, so they must borrow leading to a debt cycle	Provide long-term low interest microfinance. Provide fishing gear and boats from NGOs and another organization
Fishing area is being reduced by outsider and large business owners	Less income from fishing.	Review and develop government policy and laws to support low interest rate microcredit loans for food security and improve alternative livelihoods
Poor transportation access	Limited market access and delays with product getting to market. Lower process for village products.	Improve communication and transportation facilities by the Government, INGOs, with community participation