



## Building resilience in food and agriculture landscape

### HIGHLIGHTS

- European Union instrumental in providing support to vulnerable women in northern and central Rakhine State
- FAO and FCDO join forces to restore agriculture production and livelihoods in Mon and Kayin States and Tanintharyi Region
- FAO marks World Food Day in Myanmar
- FAO SLM-GEF project commemorated World Soil Day 2020
- Workshop on Biosecurity in Fisheries and Aquaculture Sector in Myanmar by collaborations with FishAdapt Project and University of Yangon
- World Antimicrobial Awareness Week (WAAW) 2020
- Paving the road to improve fisheries co-management in Myanmar
- FAO provides MoALI a virtual capacity building for using ArcGIS and technology
- FAO introduces a digital application for the World Programme for the Census of Agriculture (WCA)
- Continuous Change Detection and Classification Training
- Against the odds, human interest story of U Cho, a farmer

### Dear Readers,

Welcome to the fourth edition of our newsletter in 2020 which, as usual, provides information about our work in Myanmar. Since the resurgence of COVID-19 cases in late August, the government has set more protective measures in force in almost every state and region. This reaches you therefore as the pandemic in the country is going through a second, more serious wave of cases.

However, we do hope, in spite of this unfortunate development, that you, our dear readers, are well and healthy.

In response to the measures taken by the government of Myanmar, FAO Myanmar has introduced protective equipment, guidelines for physical distancing and hygiene, and awareness messages in its programming. These measures will help ensure continued delivery of assistance as far as possible.

In this edition, you will find information of FAO Myanmar's continuing cooperation with the Ministry of Agriculture, Livestock, and Irrigation (MoALI) for programmatic implementations such as conducting virtual events, trainings and workshops for sectoral development of agriculture, food security, and nutrition, livestock, and fisheries.

You will also find articles about other activities supported by FAO aimed at enhancing the resilience of vulnerable communities in coordination and collaboration with several other humanitarian and development actors and in support of the government's recovery efforts outlined in the COVID-19 Economic Relief Plan (CERP).

Enjoy reading our Newsletter!

Happy New Year!

Franz-Eugen Arnold  
FAO Representative *a.i.* in Myanmar

## European Union instrumental in providing support to vulnerable women in northern and central Rakhine State



Cash and hygiene items distribution in Rakhine State

In August 2020, a new surge in locally transmitted cases of the coronavirus disease 2019 (COVID-19) was reported in Rakhine State and other regions of Myanmar. According to the Ministry of Health and Sports, as of 30 October, 50 403 confirmed cases have been reported in Myanmar, with 2 858 confirmed cases in Rakhine State.

Consequently, to control the spread of COVID-19, Myanmar Government introduced measures such as stay at home orders, banning of public events and closure of schools, entertainment venues, restaurants, and religious institutions as well as restriction of movement within the state/between townships.

According to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), these measures, which were introduced on August 16, have affected the continuity of humanitarian operations. The measures introduced in Rakhine State have necessitated the new ways of working.

In response to the measures taken by the Government of Myanmar, the Food and Agriculture Organization of the United Nations (FAO) has introduced stringent protocols to be used in its field operations for COVID-19 prevention and control such as the use of personal protective equipment, guidelines for physical distancing and hygiene, and basic awareness messages in its programming. These protocols will help ensure continued delivery of assistance.

In partnership with the European Union (EU), from 13 to 28 October 2020 the FAO has completed unconditional cash distributions to 1 513 pregnant and lactating women in Buthidaung, Kyauktaw, Maungdaw, and Rathedaung townships in Rakhine State. The cash transfer for pregnant and lactating women (PLW) is complementary (top up) to the Government Maternal and Child Cash Transfer (MCCT). This cash will cover the nutritional needs of pregnant and lactating mothers and their infants. Along with these cash

grants, face masks and bar soap were provided to help mitigate the spread of COVID-19.

The assistance was provided within the framework of a three-year project titled “Improving food security and nutrition security in Rakhine State.” The objective of this project is to increase the resilience of livelihoods to natural hazards and conflicts. Specifically, the EU-funded project aims to restore and protect agricultural livelihoods in the vulnerable communities of Buthidaung, Kyauktaw, Maungdaw, and Rathedaung townships in Rakhine State. According to Reda Lebtahi, Emergency and Rehabilitation Coordinator of the FAO, several localized assessments have found that the impact of restrictions on movement has varied in different states and regions and across sectors. Measures against COVID-19 were found in the areas where research was conducted to have had a significant impact on food production, market access, the quality and prices of agricultural inputs, employment, and income generation.

“This unconditional, one-time cash grant specifically targeting women, particularly pregnant and lactating women with children under two years of age, ensures that mothers will continue to have the resources to access nutritious foods as well as improved incomes and knowledge of nutrition to improve their diets,” the FAO Emergency and Rehabilitation Coordinator emphasized.

In July 2020, the FAO also supported 6 000 of the most vulnerable farming households in northern and central Rakhine State with multi-purpose cash amounting to USD 642 000 and with various farm inputs. Findings of FAO Post Distribution Monitoring in September 2020, show that a majority of the farmers used most of the cash during the monsoon planting season, including costs for land preparation and labour. Beneficiaries also utilized the cash support for food and medical expenses.

## FAO and FCDO join forces to restore agriculture production and livelihoods in Mon and Kayin States and Tanintharyi Region

The Food and Agriculture Organization of the United Nations (FAO) with the support of the Foreign Commonwealth and Development Office (FCDO), completed the provision of inputs for the most severe flood affected family farmers to restore agricultural production and livelihoods in southern part of Myanmar. The support is provided within the “Restoration of livelihoods and strengthening the Early Warning Early Action” project funded by the FCDO that seeks to promote sustainable recovery and build back better of the flood affected people in Mon and Kayin States and Tanintharyi Region.



Provision of agriculture inputs in Tanintharyi Region

The support provided to vulnerable farming families in October 2020 consists of the following:

**Agriculture inputs:** FAO provided vegetable seeds and fertilizer to 2 083 vulnerable family farmers in Kawkaik and Kyainseikgyi Townships in Kayin State.

In Mon State, FAO provided rice seeds and fertilizer to 2 000 vulnerable family farmers in Kyaikmaraw Township, Mon State.

In Tanintharyi and Palaw Townships, Tanintharyi Region FAO provided rice seeds and fertilizer to 917 vulnerable family farmers.

Most of the farming families who received the support were directly or indirectly affected by the 2019 August heavy monsoon rains that resulted in overflowing rivers triggering seasonal floods in many states and regions in Myanmar. The seasonal monsoons had severe and escalating impacts in Kayin and Mon State and Tanintharyi Region. About 131 727 acres of farmland were flooded while damage and loss to households are still to be assessed. According to the FAO-WFP joint RSM Survey, 57 percent of Kayin, 48 percent of Mon and 91 percent of Tanintharyi interviewed households were forced to use negative livelihood coping strategies such as reduced expenditure on health, spending the savings or selling households assets, etc.

**COVID-19 basic protective measures:** FAO has integrated and completed several awareness-raising activities dedicated to COVID-19. Handwashing demonstrations have been conducted to help people understand the benefits of handwashing through practical exercises. FAO has provided face masks, soap, to farmers at the beginning of all field activities. All project activities integrate critical public health information about the importance of physical distancing and individual actions to protect oneself and others from getting sick.

In Kawkaik and Kyainseikgyi Townships in Kayin State, FAO provided some 2 000 vulnerable family farmers with 208 boxes of face masks and 2 083 boxes of antibacterial bar soap.

In Mon State, FAO provided some 2 000 vulnerable family farmers with 200 boxes of face masks and 6,000 boxes of antibacterial bar soap.

In Tanintharyi and Palaw Townships, Tanintharyi Region FAO provided some 917 vulnerable family farmers with 91 boxes of masks and 2 751 boxes of antibacterial bar soap. Launched in March 2020, FAO and FCDO are providing urgent support for the most severely flood-affected smallholder farmers to restore agricultural production and livelihoods while strengthening early warning systems at state/region, township, and community level, thus improving household resilience to future disasters, food security, and nutrition.

## FAO marks World Food Day in Myanmar

The Food and Agriculture Organization of the United Nations (FAO) celebrated World Food Day and 75 years of working to achieve a world without hunger, malnutrition, and poverty. As part of the celebrations, FAO Myanmar in collaboration with the Ministry of Agriculture, Livestock and Irrigation (MoALI) held a virtual event with the theme “Grow, Nourish, Sustain. Together. Our Actions are our Future”.



FAO Representative addressing participants at WFD virtual event

H.E. Dr Aung Thu, the Union Minister for Agriculture, Livestock and Irrigation noted in his address that FAO member countries including Myanmar have made efforts to achieve significant agricultural productivity in the past decades. However, the sector faces challenges along the food supply chain and food system, impact of environmental degradation, loss of biodiversity, food wastes, weakness in security of life of workers in the food production chain, occurrence of disasters, disease, and more recently the COVID-19 pandemic.

The Union Minister outlined MoALI’s policies, strategy and short-term and long-term plans to support the agriculture sector in Myanmar and reiterated the Ministries commitment to working with FAO to meet the three main responsibilities: for food security, for safety of food and for development of rural areas.

In a statement read by the FAO Representative on behalf of QU Dongyu, the FAO Director-General noted the next phase of FAO's history starts amid the wreckage caused by the COVID-19 pandemic. It has laid bare the fragility of our agri-food systems, the precariousness of the agricultural labour force, the thin line that separates many families from destitution.

"The world is looking to us to put our actions where our words are – to be think-tank and action-tank rolled into one. Alongside our partners, we must be knowledge-generators and -facilitators all at once, together in the quest for the ultimate public good: a world free of poverty, hunger and malnutrition" he added.



Participants at virtual commemoration of World Food Day

### Developing a resilient Agriculture Sector

Participants witnessed the unveiling of the Agriculture Action Plan for Disaster Risk Reduction (AAPDDR) at the virtual ceremony to coincide with commemoration of the World Food Day celebration.

In his remarks, H.E. U Hla Kyaw, Deputy Minister for the Ministry of Agriculture, Livestock and Irrigation, expressed sincere gratitude to stakeholders and experts from all concerned departments, institutions, and organizations, especially FAO, for the technical support in the development process of the Agriculture Action Plan for Disaster Risk Reduction (AAPDDR).

"It is our Ministry's response and strategy to promote risk-sensitive development within the agriculture and livestock sector. The plan combines long-term process outcomes, reflecting the views and priorities for AAPDDR identified through the participatory, inclusive planning process," he said.

The FAO Representative in Myanmar Ms. Xiaojie Fan stated that the unveiling of the AAPDDR is timely as it provides a framework to strengthen agriculture response strategies to natural disasters.

As countries develop, adapt, and implement COVID-19 recovery plans, she expressed we should not forget natural

disasters that have been found to trigger a highly complex set of secondary hazards, socioeconomic risks, and transitory shocks that affect agriculture communities through their various livelihood assets.

"FAO is pleased to have provided the technical support during the AAPDDR development process, and we commit to continue engaging as we seek to find solutions to address the challenges the sector is facing," she said.

The AAPDDR was developed with the FAO's technical support in collaboration with the Ministry of Agriculture, Livestock and Irrigation.

Attendance were representatives of MoALI, development partners, the Diplomatic Corps, and Heads of UN sister agencies who joined in the occasion to call for global cooperation and solidarity for ensure the threats COVID-19 is posing to food security and agricultural livelihoods are confronted, and the most vulnerable can get back on their feet.

### FAO SLM-GEF project commemorated World Soil Day 2020

World Soil Day (WSD), 5 December is the United Nations Observance that celebrates healthy soils for a food-secure future. This years' campaign "Keep soil alive, protect soil biodiversity" urges us to focus our attention on the workers belowground - from tiny bacteria to agile millipedes and slimy earthworms - all of which contribute to processes that are indispensable to life on Earth.

The FAO SLM-GEF Project has been promoting various relevant climate smart agriculture (CSA) techniques mainly using Farmer Field School (FFS) model which also includes various techniques on sustainable soil management such as crop diversification, inclusion of leguminous crops in the cropping system, mulching, agroforestry, conservation agriculture, use of organic fertilizers, composting, vermiculture etc. Promotion of those CSA practices have genuinely contributed to improving soil structure and enriching soil fertility.



Soil management training for farmers in Nyaung U township

The project commemorated a World Soil Day between 3 December and 5 December 2020 in collaboration with respective offices of Department of Agriculture at District/Township level and Service Providers: Cesvi, AVSI and COLDA in three project pilot townships (i.e. Labutta, Nyaung-U and Mindat) under three agro-ecological zones. Farmers in FFS villages were trained on the importance of soil management and practiced the soil sample collection and testing by using soil test kit. Moreover, soil samples were collected from FFS demonstration plots and dispatched for laboratory analysis. Soil samples are collected and tested twice from the same FFS demonstration fields to compare the soil status related to the major nutrients, pH and organic matters content before and after the project interventions.

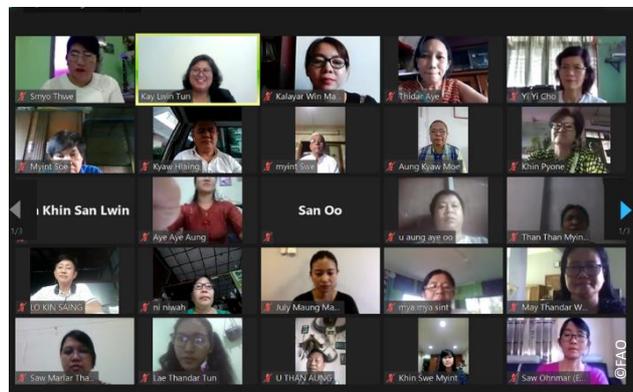
A video was produced on field activities on commemorating World Soil Day and was posted on social media, included in various web sites and circulated widely to all concerned. The project also translated some knowledge products on sustainable soil management into Myanmar language including a video on "Keep soil alive, protect soil biodiversity" and information related to World Soil Day produced by FAO and disseminated through MRTV and social media. It is expected that the training provided to the farmers and awareness created on the occasion of World Soil Day will certainly help enriching the knowledge of the farmers on sustainable soil management to keep the soil alive and protect soil biodiversity.

## Workshop on Biosecurity in Fisheries and Aquaculture Sector in Myanmar by collaborations with FishAdapt Project and University of Yangon

In Myanmar, three laws and regulations; Fisheries law, Good Aquaculture Practices (GAQP), and Compilation Laws, have been implemented. However, focusing on biosecurity management in the fisheries and aquaculture sector is still limited.

The GEF funded FAO Project on Strengthening the Adaptive Capacity and Resilience of Fisheries and Aquaculture-dependent Livelihoods in Myanmar (FishAdapt) in collaboration with the Fisheries and Aquaculture, University of Yangon to fill gaps in biosecurity management in the fisheries and aquaculture sector. As a step towards the national and sub-national level Biosecurity Frameworks, a workshop for "Biosecurity in Fisheries and Aquaculture Sector in Myanmar" was held from 12 to 15 October 2020 for four days via teleconferencing. FAO-FishAdapt staffs, officials from Department of Fisheries (DoF), faculty staffs from the University of Yangon and other universities, and Myanmar fisheries and small and medium scale aquaculture farmers, a total of 118 participants attended this workshop.

This workshop aims to investigate the current status of biosecurity and management system of fisheries and aquaculture sectors in Myanmar. Dr Kay Lwin Tun, Professor from Fisheries and Aquaculture, the University of Yangon led as the main speaker in the workshop and facilitated discussions.



*Workshop on Biosecurity in Fisheries and Aquaculture Sector*

Although DoF has high quality and ISO-certified laboratory checking for export items according to the requirement and guidelines of export countries, focus on imported items including live animals (larvae fish/shrimp and brood stock importing, etc.) is still limited. Since there is only one quarantine check post in Yangon International Airport for imported live aquatic animals to Myanmar, trading across the borders could not be managed properly. On the other hand, human resources who have well knowledge of aquatic animal diseases, transmission mechanisms of the pathogen in fisheries and aquaculture are also limited. There is also a gap between the large and small/medium scale farmers' understanding of biosecurity management in fisheries and aquaculture. However, small and medium-scale farmers are very eager to learn and follow the biosecurity measure if they have learning opportunities. Moreover, training on biosecurity measures and water quality management also require for DoF staff in the coastal area, small and large scale aquaculture farmers to monitor the current situation.

The FAO-FishAdapt project in collaboration with the University of Yangon will arrange the trainings including lectures and hands-on; how to identify the basic symptom of diseases, how to send the samples to the lab for diagnostic, and how to measure the water quality.

In the future, the importation of brood stock and post larvae that resist to climate change. Biosecurity in border areas will play an important role to reduce the risk of importing diseases. Small scale laboratory that can provide rapid detection methods for diseases will be required near the border and aquaculture area of Myanmar. With regards, FAO-FishAdapt project will contribute awareness/training to farmers and faculty staffs and support the scientific-based policy-making process also to the Department of Fisheries.

## World Antimicrobial Awareness Week (WAAW) 2020

The FAO theme for WAAW 2020 was “AMR is here and now: United to strengthen food systems and secure livelihoods”. The specific theme for Asia and the Pacific was “Calling to improve biosecurity in animal production to strengthen food systems and secure livelihoods”. FAO Emergency Centre for Transboundary Animal Diseases (ECTAD) in Myanmar joined the annual, global week of coordinated action.



Antimicrobial resistance (AMR) is a significant global threat to public health, food safety and food security, as well as to livelihoods, animal production and economic and agricultural development. AMR describes a natural phenomenon where microorganisms such as bacteria, viruses, parasites and fungi lose sensitivity to the effects of antimicrobial medicines, like antibiotics, that were previously effective in treating infections.

An estimated 700 000 people die each year from antimicrobial resistance (AMR) infections and an untold number of sick animals may not be responding to treatment. Within the next 10 years, antimicrobial use for livestock alone is projected to nearly double to keep pace with the demands of our growing human population for food from animals. Livestock production in low-income countries could decline by up to 11 percent by 2050 because of AMR. AMR is a One Health issue: if antibiotics do not work, it is a problem for humans as well as animals. World Antimicrobial Awareness Week (WAAW) is led by the Tripartite of FAO, OIE and WHO. This year WAAW took place on 18-24 November 2020. It was marked by cross-sectoral engagement from stakeholders including: the public, policymakers, human and animal health professionals, environmental and food safety sectors, and students. Events happened through social media, and awareness-raising activities around the world.

In WAAW 2020 the name of the campaign has changed from “World Antibiotic Awareness Week” to “World Antimicrobial Awareness Week”. This important change has been made to reflect the range of medicines, not just

antibiotics that are currently under threat. The campaign carries this stamp and updated slogan: “Handle antimicrobials with care”.

In October 2019, the UK Government’s Fleming Fund provided funds to FAO to work with the Government of the Republic of the Union of Myanmar in a project titled Antimicrobial Monitoring in Poultry, Myanmar. The project’s expected impact is that antimicrobial use (AMU) and, therewith, AMR are reduced in Myanmar poultry production.

Since 2017, FAO has participated in the WAAW activities with the One Health partners in Myanmar. In WAAW 2020 FAO, Asian Federation of Veterinary Association (FAVA), Myanmar veterinary association, Livestock Breeding and Veterinary Department (LBVD), University of Veterinary Science (UVS) and Myanmar Livestock Federation (MLF) jointly organized a virtual event title ‘Enhancing awareness on AMR in Livestock in Myanmar’ on 21 November 2020. In this event, seven speakers from UVS, LBVD, MLF and FAO Myanmar presented.



For WAAW 2020, the FAO released key calls to action for stakeholders such as farmers, food chain works and consumers, policy makers, educators and researchers, private sector stakeholders, and animal health professionals.

### Paving the road to improve fisheries co-management in Myanmar

Myanmar, one of the largest countries in Southeast Asia, has a coastline of about 3 000 km and extensive marine and freshwater fisheries resources. The whole fishery and aquaculture sector provide opportunities for employment to 2.3 million people and fish is one of the most important protein sources of the people of Myanmar.

Fish plays a key role in the country's economy: rising global demand led to an increased country production, which reached 3.2 million tonnes in 2018, and a growing trade trend, with China as the main importer country. The sector is therefore an opportunity for the country's welfare and livelihood but also might undermine the sustainability of fisheries resources.

Fisheries co-management has emerged as a solution to issues impacting the fisheries sector. “Fisheries co-management is a mode of governance focusing on a partnership agreement between the government and fishers through which resource users’ capacity and responsibility, combined with the support of formal legal frameworks and information/decision-making systems, may offer specific advantages” stated Mr. Franz Arnold, FAO Representation in Myanmar, during his opening speech at the Myanmar Project Area Identification Meeting, the event organized by FAO to launch the five-year project “Fisheries Co-management Capacity Development for Blue Communities: Sustainable Fisheries and Diverse Livelihoods (2020-2025)”, part of the Korea FAO Sustainable and Innovative Fisheries and Aquaculture Programme (KOFAP) funded by the Ministry of Oceans and Fisheries of the Republic of Korea. Its expected impact is to foster fisheries co-management systems and diverse livelihoods as additional and alternative jobs contributing to achieving economic, environmental and social sustainability of fishing communities.



*Participants at Fisheries Co-management virtual event*

The virtual event was held on 24 to 25 November 2020 and brought together about 70 participants representing various interests around fisheries co-management in Myanmar to review the objective, outputs, activities, and work plan of the project.

The project aims to address some of the current challenges in the sector through the strengthening of fisheries co-management, as well as to have synergic effects with other similar projects or programs related to fisheries co-management currently implemented or previously undertaken in Myanmar, underlined U Wai Lin Maung, Director General of the Department of Fisheries of the Republic of the Union of Myanmar.

During the two days meeting, participants identified key institutions, organizations, and projects dealing with fisheries co-management and shared experience, lessons learned, and best practices from previous and ongoing projects in Myanmar focusing on fisheries co-management or having a fisheries co-management component. The experts’ discussion also highlighted the need for developing the best cooperation and coordination

mechanism for an effective and efficient implementation of the project, and suggested selection criteria for the implementation sites in Myanmar.

In line with the Sustainable Development Goals (SDGs), especially SDG 14 “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”, with a focus on fisheries co-management and its impact on fisheries preservation, the collaboration among FAO and Myanmar looks forward to strengthening the sector and enable better livelihoods through more sustainable fishing practices.

## FAO provides MoALI a virtual ArcGIS training for crop suitability and AEZ

Myanmar has achieved agriculture self-sufficiency at national level in major staple crops, especially rice and is experiencing unprecedented economic change. However, more than a quarter of Myanmar's population still lives in poverty and various forms of malnutrition persist. According to the Myanmar Sustainable Development Plan, the Government of Myanmar is finalizing its Multi Sector National Plan of Action for Nutrition (MS-NPAN) which recognizes the integral role of MoALI to achieve its objectives by addressing underlying causes of malnutrition. In June 2018, the Ministry of Agricultural, Livestock and Irrigation (MoALI) launched its own Agricultural Development Strategy (ADS) to create a diverse and productive economy with agriculture and rural development as its foundation. It aims at improving food security and nutrition, increasing smallholder farmer’s income and reducing rural poverty.

In collaboration with the Ministry of Agriculture, Livestock, and Irrigation (MoALI), the FAO in Myanmar has started the implementation of TCP project “Technical Assistance in Development of Strategic Tools for Planning Agriculture Diversification and Dietary Improvement” in October 2018.



*ArcGIS demonstration by the technical consultant*

As a part of the project, FAO virtually conducted ArcGIS training for the staff from MoALI on 14 to 18 December, 2020. Total 17 staffs from different departments under

MoALI were trained on ArcGIS and Mapping, data collection method and usage of software, the use of ArcGIS 10.8 software and technology to collect, analyse, and manage country data collected in developing Agro-Ecological Zones (AEZ) maps and crop suitability assessment.

U Kyaw Swe Lin, Director General of the Department of Planning and Dr Warren Lee, Lead Technical Officer from FAO Regional Office from Asia and the Pacific delivered the remarks and senior officials from MoALI and FAO were presented to the opening ceremony of the training. The training with support of service provider, ESRI, provided in hybrid arrangement in line COVID-19 control measures.



Training participants and officials from FAO and MoALI

A core team of MoALI is to be formed for AEZ and crop suitability mapping process. In addition, the training will strengthen institutional capacities and governance for the implementation of inclusive sectoral and multi-sectoral policies and plans of action.

## FAO introduces a digital application for the World Programme for the Census of Agriculture (WCA)

The World Programme for the Census of Agriculture 2020 (WCA2020) is the tenth decennial programme, and is expected to provide the basis for implementation of agricultural censuses in FAO member countries between 2016 and 2025.

In collaboration with the Department of Agricultural Land Management and Statistics (DALMS), the Food and Agriculture Organization of the United Nations (FAO) in Myanmar conduct a couple of virtual trainings on World Program for the Census of Agriculture 2020 in November and December: Methodological and Operational Guidelines Training and Computer Assisted Personal Interviews (CAPI) Training.

To support countries, FAO published two volumes for the WCA2020 round: Volume 1 focuses on concepts and definitions necessary for development of questionnaire content; and Volume 2 provides the operational guidelines

to help countries organize, implement and manage their agricultural census operations.

On 24 and 25 November, FAO conducted Methodological and Operational Guidelines training to review the two volumes of WCA2020 round at a high level, and provide a forum for discussion of key issues by DALMs in their planning for their next agricultural census. A total of 34 participants from DALMS including States and Regions participated in the WCA training. The training aimed to provide DALMS with an overview of the WCA2020 guidelines to understand the current methodological and operational guidelines in implementing a cost-effective, relevant and robust agricultural census.

In support of the 2020 round of the World Programme for the Census of Agriculture (WCA), the FAO Regional Office for Asia and the Pacific (FAORAP) extends its technical assistance to countries in the region for adoption and implementation of cost-effective technologies such as Computer Assisted Personal Interview (CAPI) in Agricultural Censuses and surveys.



Participants joined CCDC training via zoom

From 1 to 5 December 2020, FAO provided a training through its Technical Cooperation Programme (TCP) to the technical officers of DALMS with an introductory course on the use of the Census and Survey Processing System (CSPro) software package and its uses for deploying a CAPI application for conducting CAPI based field data collection. A total of 34 participants from DALMS including 17 States and Regions participated in the CAPI training.

CAPI offers a flexible approach to collecting data and can result in improved data quality and more efficient interviewing and processing. The training expected that technical officers from DALMS completing the course and have a better understanding of the requirements in running a CAPI based Agricultural Census and Surveys.

These census data are crucial for governments to implement evidence-based policies to foster agricultural and rural development, ensure access to land, improve food security and reduce the adverse environmental impacts of agricultural activities.

## Continuous Change Detection and Classification Training

On November 20, 2020, a half-day online training on forest degradation monitoring with the tool named Continuous Change Detection and Classification (CCDC) was jointly organized by the Forest Department, NFI/NFMIS Project and Mitigation potential of global actions to enhance forest carbon stocks Project. CCDC is a build in system for earth observation, data access, processing & analysis for land monitoring (SEPAL) with emphasis on mangrove forests regions.

Back in Myanmar Forest Reference Level (FRL-2015), there were no possibilities to integrate the forest degradation and forest restoration because of having no instruments to measure and set the baseline. Therefore, a new remote sensing approach to detect land cover map and change detection is required.



Figure – Change Detection across time series with breakpoints

Very recently, the CCDC algorithm, developed by (Zhu & Woodcock, 2014), has been integrated into SEPAL with user-friendly interface. This can contribute to the work ongoing with FAO portions and the Forest Department and the same for submitting FRL with deforestation and forest degradation integration. Raising awareness and capacity building on using such tool for best uses is therefore first and foremost crucial.

The objectives of the training were to understand the operation and utility of the CCDC algorithm for monitoring forest degradation and to prepare the input data necessary for a land cover classification based on the algorithm.

The training was conducted by Dr Lorena Hojas, International Land Cover Assessment Expert under the UN-REDD Technical Assistance Programme for Myanmar. This is a one-day short training and approximately 28 participants had attended.

This training performed as a capacity building platform through which colleagues and participants from FAO and country colleagues from the Forest Department, Forest Research Institute and the University of Forestry and Environmental Sciences approximately 30 have opportunities to share and contribute knowledge and hands-on experiences on CCDC and support relating to landcover change detection.

Participants witnessed interactive engagements on the occurrences and interpretations of breakpoints, distinctions between scales in resampling method, point or area of interest on charting time series, the accuracy on distinguishing between mangroves and non-mangroves, selecting number of trees for testing and so on.

## Against the odds, meet a farmer who continues farming to support his family and build his community

Hard work and a positive mindset have helped U Cho, a sixty-one-year-old family farmer from Nwar Kyoe Aing village in Nyaung-U Township, overcome difficulties and hardships in his life from a very young age.

At the age of five, U Cho contracted polio which left him paralyzed in his left leg. After completing his primary education, U Cho dropped out of monastic school.

“With no hope of joining public service, at the time, I did not think I will make it in life,” he says.

“I did not lose hope. I am happy that I was able to send my two boys to school. Both have now graduated. I am at home with my wife and my younger son, who helps me with the farming. Farming is my life.”

Changes in climate patterns make it difficult for farmers to decide when to start ploughing, sowing, and cultivating crops, and with low rainfall in the region, it is a challenging environment for those who solely rely on rainwater.



U Cho from Nwar Kyoe Aing village in Nyaung-U Township

“I lost five acres of sesame due to drought this year,” U Cho says. Making the situation worse are the measures introduced to control the spread of the COVID-19 pandemic. Trading is slowing down because of movement restriction. Market demand is uncertain in the time of COVID-19, and prices for the main crops we grow have decreased. But the price of rice we have to buy has gone up since the outbreak of the pandemic.”

“I have to lower our daily expenses, and we are now eating more roselle than meat as our main dish. I am now 61, and I have not experienced anything like this COVID-19 disease.”

“In the beginning, I was scared, but staying at home is not an option. I have to work to earn a living so I can buy food and feed my family.”

U Cho received five types of vegetable seeds and other inputs from the project and harvested the vegetables for home consumption and was able to sell the surplus.

In September 2018, U Cho participated in a farmer field school programme as a Lead Farmer and attended training on climate-smart agriculture. U Cho has established a demonstration plot with the knowledge from the training and is now facilitating training on sustainable agriculture techniques to his peers.

But again, COVID-19 interfered. Every village has makeshift bamboo gates and volunteer guards at the entrance and does not allow visitors, so access has become difficult for trainers.

“The knowledge sharing session has been postponed due to COVID-19. I hope we can resume all training activities very soon. I believe that if everyone is doing their part completely, we shall overcome this crisis.”

The SLM project is funded by the Global Environment Facility and is jointly coordinated and implemented by the FAO; The Ministry of Natural Resources and Environmental Conservation and The Ministry of Agriculture, Livestock, and Irrigation.

The project seeks to build the capacity of farming and forestry stakeholders to mitigate climate change and improve land conditions by adopting CSA and sustainable forest management policies and practices.

## Reflection from Myanmar Team



*Richard Gregory, Senior Fisheries Specialist, FAO Myanmar*

Happy New Year Everyone! It is more than 12 years ago that I first came to Myanmar when I worked as a fisheries advisor with the FAO Emergency and Rehabilitation Coordination Unit (ERCU) on the Cyclone Nargis recovery efforts in the Ayeyarwaddy, Delta. Over the next 2 years, this involved spending many long days on uncomfortable boats in bad weather, but I grew to truly love the work, the great colleagues that I had the pleasure to work with, and the remarkably resilient people of the Delta. With the completion of the cyclone recovery work, I spent several years working on a range of governance related projects in Rakhine and Ayeyarwaddy. Now, it is with great pleasure that since December 2020, I am again working with FAO in Myanmar; this time on the FishAdapt Project which focuses on helping fishing communities in Ayeyarwaddy, Rakhine and Yangon become more resilient to climate change threats and issues. Of course, the working conditions are more challenging than ever due to the COVID-19 and for the time being I am not able to travel to Myanmar and must work remotely from my home in Chiangmai, Thailand. However, I have an excellent project team to guide me and great support from the FAO country office, so we are making good progress despite these challenges.



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