

## PROJECT DOCUMENT

<b>Project Title:</b>	FAO Support to the Global Agriculture and Food Security Programme (GAFSP) in Myanmar
Project symbol:	UTF/MYA/026/MYA
Recipient Country(ies):	The Republic of the Union of Myanmar
Government(s)/other counterpart(s):	Ministry of Agriculture, Livestock and Irrigation (MoALI)
Expected EOD (Starting Date):	1 June 2018
Expected NTE (End Date):	31 May 2023
Contribution to FAO's Strategic Framework:	<ul style="list-style-type: none"> <li>• Strategic Objective/Organizational Outcome: 1, 4</li> <li>• Country Outcome(s): 1</li> <li>• Country Programming Framework(s) Output(s): 1.4</li> <li>• Regional Initiative/Priority Area: RI 1</li> </ul>
Environmental and Social Risk Classification	Low risk <input type="checkbox"/>
Gender Marker	G2a
Total Budget:	USD 70 million (including a loan from Asian Development Bank of USD 40.5 million and a grant from the Global Agriculture and Food Security Program (GAFSP) of USD 27 million grant - of which 5 million administered by FAO for technical support - and USD 2.5 million (in-kind) by the Government)

### **Executive Summary**

On March 2017, the GAFSP Steering Committee approved an allocation of USD 27 million to Myanmar of which USD 22 million will be administered by the Asian Development Bank (ADB) and USD 5 million by FAO for technical assistance. Duration of the GAFSP initiative is five years. The GAFSP initiative is a joint effort of ADB and FAO building on complementarities and synergies in the interventions by the two agencies. The GAFSP initiative is closely associated with the ADB-funded Climate Friendly Agricultural Value Chain (CFAVC) project with a budget of USD 40.5 million. The joint ADB-GAFSP budget allocation is about 70 million (including government and beneficiaries' contributions).

The theory of change of the project is based on a fundamental premise that a market-driven approach is needed to help smallholder farmers sustainably increase their income and improve their livelihood (food security and nutrition). The development hypothesis is that smallholder producers and

disadvantaged rural groups involved in commercially-oriented pulse and oilseed production and marketing systems, will, through tailored technical, infrastructural, credit access and organizational support, increase their productivity and product quality and benefit from increased inclusion in profitable agriculture value chains through business relationships with other private actors (traders, processors, exporters, etc.) in order to meet market demands and, overall, contribute to national agricultural growth.

Targeting will be done at geographical level and for individual households. It is suggested that at least 35 000 households (equivalent to 154 000 persons) be targeted over an area of six townships in the Central Dry Zone (CDZ).

The specific activities implemented by FAO will include: (i) dissemination of good agricultural practices; (ii) household nutrition improvement; (iii) promotion of off-farm employment; and (iv) capacity development for monitoring and evaluation.

The implementation modalities will follow the respective procedures of the two Supervising Entities (ADB and FAO). A common implementation framework will be established for the whole ADB loan and GAFSP funded interventions (ADB-GAFSP initiative). The Ministry of Agriculture, Livestock and Irrigation (MOALI) will be the Executing Agency (EA) of the joint ADB-GAFSP initiative. The Department of planning (DOP) will take the lead role in providing project oversight, while the Department of Agriculture (DOA) will take the lead role in project implementation. A Project Steering Committee (PSC) chaired by the Minister or Deputy Minister of MOALI, and co-chaired by the Ministers of Agriculture of Magway, Mandalay and Sagaing regions of the CDZ will serve as steering committee for the project to provide oversight and policy guidance.

Monitoring and evaluation will be carried out in synergy with ongoing capacity development provided under the European Union (EU)-funded *My-Governance* project and will focus mainly on building capacity at local level in terms of data collection and at central level in terms of data analysis.

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## ACRONYMS

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ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
ADS	Agricultural Development Strategy
CDZ	Central Dry Zone
CFAVC	Climate Friendly Agricultural Value Chain Project
CPF	Country Programming Framework
DALMS	Department of Agricultural Land Management and Statistics
DAR	Department of Agricultural Research
DOA	Department of Agriculture
DOP	Department of planning
DPB	Department of Planning and Budget
DRD	Department of Rural Development
DSW	Department of Social Welfare
EA	Executing Agency
EMDF	Ethnic Minority Development Framework
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
FIES	Food Insecurity Experience Scale
FIRST	Food and Nutrition Security Impact, Resilience, Sustainability and Transformation
FOSS	Free and Open Source Software
GAD	General Administration Department
GAP	Good Agricultural Practices
GAFFSP	Global Agriculture and Food Security Program
GEF	Global Environmental Facility
ICT	Information and Communication Technology
IPA	Institute of Poverty Alleviation
IWUMD	Irrigation and Water Utilization Management Department
IYCF	Infant and Young Child Feeding
LF	Lead Farmers
LIFT	Livelihood and Food Security Trust Fund
MDD-W	Minimum Dietary Diversity Score for Women
M&E	Monitoring and Evaluation
MoALI	Ministry of Agriculture, Livestock and Irrigation
MoE	Ministry of Education
MoHS	Ministry of Health and Sports
MS-NPAN	Multi-Sectoral Nutrition Action Plan
MSWRR	Ministry of Social Welfare, Relief and Resettlement
MTPO	Myanmar Trade Promotion Office
NGO	Non-governmental Organization
NPMU	National Project Management Unit
NRM	Natural Resources Management
O&M	Operation and Maintenance
PDO	Project Development Objective
PMU	Project Management Unit
PSC	Project Steering Committee
SBCC	Social and Behaviour Change Communication
SDG	Sustainable Development Goal
SO	Strategic Objective
SRF	Sector Results Framework
SUN	Scaling-Up for Nutrition
TA	Technical Assistance
ToT	Training of Trainers
UNICEF	United Nations International Children's Emergency Fund

## SECTION 1 - RELEVANCE

### 1.1 GENERAL CONTEXT

#### 1.1.1 Rationale

1. In the Central Dry Zone (CDZ) of Myanmar (identified as the broad project area for the joint GAFSP-ADB-FAO project), nearly 25 percent of the CDZ's population is under the national poverty line and about 50 percent are landless. The CDZ rural poor are also affected by a high incidence of malnutrition and food insecurity. Stunting (height for age) and wasting rates (weight for height) each range between 20-30 percent, with the highest incidence in dryland farming zones compared with flood plain and irrigated areas. Over 50 percent of women age 15-49 years old are anaemic in the CDZ. Nearly 40 percent of the rural population faced problems meeting food needs in the past 12 months. For the target beneficiaries, lack of livelihoods (43 percent) is the key driver of poverty, and thus social assistance and casual labour (38 percent) are their primary coping mechanisms.

2. The rationale for intervention lays in the significant benefits of combining value chain improvements targeted to small producers, brokers, traders and processors with specific poverty reduction, climate smart, nutrition and land administration interventions. This “package” approach will simultaneously strengthen the effectiveness, sustainability, equity, climate resilience and nutrition outcomes of the interventions, making this joint initiative a broad, comprehensive and effective rural development intervention, especially when considering its contribution to Sustainable Development Goal (SDG) achievement in Myanmar.

3. Effectiveness. Under this approach, the effectiveness of value chain interventions will be improved through targeted intervention on the weak links of the bean, pulse and oilseed value chains. The results of a rapid value chain assessment (see above) suggest that the weakest link in pulses and oilseed is the production level where issues of productivity, labour shortages and the high cost of labour limit the expansion of the area under crop and grain quality issues linked to pesticide residues, aflatoxin and physical contamination of pulses and oilseeds are widespread. This is also the consequence of the fact that the value chain gatekeepers currently achieve margins wide enough in low quality markets not to pursue a higher quality product.

4. Sustainability. From a commercial point of view, it is likely that the selected value chains will be affected by changes in quality standards in the main importing countries (mainly China but also India and Thailand) as these markets absorb the large majority of exports. Currently these markets are not very demanding in terms of food quality and safety but this project has an important role in preparing the ground for these value chains to remain competitive in a changing commercial environment when grain quality becomes more important. The project will also have a role to play in increasing access to high-end markets such as Japan, South Korea and EU where stringent quality and safety standards already represent a challenge for Myanmar producers. These linkages will be established on a pilot basis to demonstrate good practice. From an environmental perspective, beans and pulses are able to increase biodiversity as they are able to fix atmospheric nitrogen in the soil, which increases soil fertility.

5. Equity. Supporting smallholder producers through improved access to inputs, mechanization, knowledge and capital for improved pulses and oilseed production will significantly improve the productivity and quality of outputs with positive benefits on smallholders' income. Promoting off-farm opportunities will diversify income sources acting as an additional risk mitigation factor. Overall, the equity aspect of the joint initiative will be

significantly enhanced. Improved land administration services will increase land rights securitization.

6. Climate change adaptation and mitigation. Improved access to irrigation groundwater will boost production and facilitate climate change adaptation. Promotion of drought and disease resistant varieties and good agricultural practices will complement and extend these benefits. The establishment of a climate early warning system will play a significant role in providing farmers with earlier, better quality information on the short and medium-term weather patterns/forecasts. This additional information will allow farmers to make better decisions on crop types, varieties and levels of inputs to reduce production risks and increase net returns from the crops they plant. In addition, pulse crops have potential for climate change mitigation linked to the reduction of Greenhouse Gas (GHG) emissions.

7. Nutrition. Interventions to reduce food and nutrition insecurity targeted mostly to pregnant and lactating women as well as nutrition “agents of change” at community level will bring about significant nutrition-driven behaviour changes through awareness building, information and communication. In terms of selected crops, pulses’ high iron content makes them a potent food for preventing iron deficiency anaemia in women and children especially when combined with food contains Vitamin C to improve iron absorption. Protein quality matters, particularly for growth and development. The protein quality of vegetarian diets is significantly improved when pulses are eaten together with cereals.

### **1.1.2 Alignment and Strategic Fit**

8. The project will contribute to FAO Strategic Objective 1 (SO1) “Contribute to the eradication of hunger, food insecurity and malnutrition”, FAO Organization Outcome 104 “Capacities of governments and stakeholders are improved for human resource and organizational development in the food security and nutrition domain”, and Strategic Objective 4 (SO4) “Enable Inclusive and Efficient Agricultural Food Systems”, the FAO Organizational Outcome 402 “Agribusinesses and agrifood chains that are more inclusive and efficient are developed and implemented by the public and private sectors” Within the FAO Myanmar Country Programming Framework (CPF 2017-2022), the project will fit with country Outcome 1 “Enhanced Food Security, Nutrition and Food Safety” and Output 1.4 “Good practices in agricultural production and nutrition behaviour change promoted at household level through improved delivery services”.

The project will also contribute to the three outcomes of the Agriculture Development Strategy (ADS), namely: (i) Enhanced Governance and Capacity of Institutions Responsible for Agricultural Development; (ii) Increased Productivity, Food and nutrition security and Farmers’ Income; and (iii) Enhanced Market Linkages and Competitiveness. More specifically:

- a) **Governance:** The rules, capacities, and functions that underlie all other measures. For this pillar, the project will address: improved food and nutrition security; improved access to land; Building capacity at the national and subnational level in planning, policy, coordination, participation, land administration, food and nutrition programmes, and monitoring and evaluation. An overriding element will be the inclusion of women and poor households in the rural economy
- b) **Productivity:** The institutions and practices that benefit farmers through sustainable increase in productivity. The project will address: adoption of climate smart agriculture and commercialization of smallholder farmers; building capacity at different level in research, extension, farmer organization, climate resilience, good practices, water management, soil nutrient management, Operation and Maintenance (O&M) of irrigation systems;

- c) **Competitiveness:** The investments and policies to modernize the agricultural system and link farmers and enterprises to growing domestic and international markets. The project will address this pillar through: improved access to finance that provides opportunities to procure mobile agricultural services, and quality inputs; promotion of the rural non-farm economy where women and youth will find the greatest employment opportunities: and, building capacity in value chain development, supply chain management, contract farming, linking smallholders to markets, trade negotiation, food safety assurance, competitiveness analysis, agrifood Small and Medium Enterprises (SME) development, O&M of road.

### **1.1.3 FAO's comparative advantage**

9. FAO's mandate includes contributing to "a world without hunger" through partnerships, capacities development support in policies, institutions, technical knowhow and facilitating investment in food, agriculture and related sectors. FAO is unique, not only as a repository of international norms and standards, but also a knowledge institutions with relevant capacities in supporting national and international efforts to ensuring sustainable eradication of hunger, malnutrition, food insecurity and deprivation. As a knowledge institution, FAO is recognized as a leading agency providing technical cross-disciplinary expertise and experience in nutrition sensitive investment programming, agriculture-nutrition linkages, and has a long history of supporting nutrition education in farmer field schools and agriculture extension.

10. FAO is considered one of the most important technical agencies in agricultural development, food security and nutrition in Myanmar and it has a history of partnership with the Government of the Republic of the Union of Myanmar since 1977. FAO has rich experiences supporting Myanmar's Dry Zone Agricultural Sector through various projects and programmes including ongoing Global Environmental Facility (GEF) funded project on "Sustainable cropland and forest management in priority agro-ecosystems of Myanmar" and Livelihood and Food Security Trust Fund (LIFT) funded project on "Improving farmer livelihoods in the dry zone through improved livestock health, productivity and marketing". This makes FAO enabled to understand country context and needs. Moreover, FAO provides TA support to the governments under several GAFSP-funded projects globally, including, in the region, those in Nepal and Bangladesh currently under implementation. Given its representation and coverage, it has the capacity to serve as a neutral adviser to support countries and financing partners in their commitment to meet international goals on nutrition; it can also help to bring and exchange international best practices from other countries and regions.

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### **1.1.4 Stakeholder Consultation and Engagement**

12. The main stakeholders benefiting from the proposed project will be government organizations responsible for planning, managing and regulating relevant subsectors of Agricultural development and Nutrition, in particular Department of Agriculture, research institutions and universities involved in Agricultural Research, Nutrition and human capacity



building and public service providers (extension division and early warning systems, etc.) They will benefit from the project by participation in the technical training on crop production management and nutrition.

13. The direct beneficiaries of the Project are poor agricultural producers and landless as well as female-headed households for nutrition improvements in the selected project areas. The producers will benefit from the technical information and training and capacity building activities that are designed to improve their skill on efficient production and post-harvest management. Women will receive training on nutrition awareness building and education. Furthermore, agricultural input suppliers, service providers and other stakeholders involved in the value chain will benefit as well.

#### **1.1.4.1 Stakeholder engagement**

14. Frequent and in-depth stakeholder consultations took place during the preparation of the CSAVC covering various aspects of the project, including those related to the proposed Technical Assistance (TA) activities. Several meetings took place with the MoALI leadership, managers and technical officers, as well as district and township level staffs. Farmers, village leaders, and other local institutions and other relevant field actors, such as traders, were interviewed during the preparation missions' visits to the project areas. The preparation team also engaged in dialogue with other government agencies, such as Ministry of Planning and Finance, and external donors and organizations. The feedback obtained in the process helped to identify environmental and social risks, and formulate mitigation measures.

#### **1.1.4.2 Grievance Mechanism**

15. A grievance mechanism will be set up for the project. It will be designed to enable the project to promote openness and transparency at the local level, increase project ownership, facilitate beneficiaries and stakeholders to share concerns and suggestions for the project staff to adequately respond to them. Project Management Unit (PMU) will be assigned as responsible unit for day-to-day matters related to grievance mechanism and reporting. The PMU will provide resolution to the grievance or complaint. In the meantime, any disputes arising in villages or within households due to the project activities are referred to the local government authorities, who will inform the PMU.

#### **1.1.4.3 Disclosure**

16. During implementation, FAO Myanmar Country Office in close collaboration with PMU will ensure timely dissemination of information on TA-GAFSP both at central and regional levels.

#### **1.1.5 Knowledge Sharing and Lessons Learned**

17. FAO's global efforts on promoting improvements in food security and nutrition indicate that increases in income alone do not automatically render a better diet as food intake depends on various factors, such as availability of foods at the market, affordability, who in the family controls the income and prepares food, and how food is prepared and distributed among members. Experience from similar interventions highlighted that large-scale agriculture projects present ample opportunities to improve nutrition of the target population through addressing nutrition in project activities and raising the capacity and awareness of project stakeholders and their institutions.

## 1.2 EXPECTED RESULTS

### 1.2.1 Impact

18. The Project Development Objective (PDO) will be to: “Create an enabling environment that reduces the incidence of poverty, food insecurity and malnutrition among the rural poor of the project area”. This PDO will have to be combined with the one of the Asian Development Fund (ADB) funded CFAVC project. The inclusive structural transformation of agriculture that empowers the poor, and particularly women, will be achieved by improving access to land, water finance and the skills necessary for the rural poor to engage in productive, market-linked livelihood activities. This will reduce food and nutrition insecurity, and increase and diversify household income, leading to greater resilience. The whole GAFSP-ADB-FAO initiative will contribute to increasing the achievement of SDGs 1, 2, 8 and 13 in Myanmar.

### 1.2.2 Outcome

19. The core GAFSP impact indicators (Tier 1) that would apply to the project will include:

1. Project household net income increased.
2. Yields of project supported crops increase.
3. Food Insecurity Experience Scale (FIES).
4. Minimum Dietary Diversity Score for Women (MDD-W) and young children.

20. The project is developed along three outputs (equivalent to components), namely: (i) Critical agribusiness value chain infrastructure improved; (ii) Climate smart and nutrition sensitive agriculture promoted; and (iii) Enabling environment for agribusiness improved. These outputs are in line with and complementary to GAFSP’s five outcome pillars<sup>1</sup>. **A detailed description of sub-outputs and activities is provided in Appendix II.**

1. **Critical agribusiness value chain infrastructure improved.** The activities/outputs will be largely related to investment in new productive infrastructure and upgrading/rehabilitating existing infrastructure such as irrigation infrastructure, seed production farms, seed quality and food safety laboratories, and commercial seed cleaning and distribution businesses. The GAFSP will focus on environmentally sound investment in groundwater irrigation development and, drip and sprinkler systems to maximise the productive efficiency of the groundwater resources particularly on higher value crops and to extend or create new growing seasons for these crops.
2. **Climate smart and nutrition sensitive agriculture promoted.** The activities/outputs will be directed to improving the productivity and profitability of the crop seed production businesses and the farming activities using the improved seeds. Improved village level post-harvest handling and market chain development activities will include food safety and traceability activities. Labour constraints to improved productivity will be addressed through building the capacity of mechanization service providers to increase their client base while improving their own technical and business skills and knowledge.

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<sup>1</sup> The five GAFSP outcome pillars are: (1) raising agricultural productivity; (2) linking farmers to markets; (3) reducing risk and vulnerability; (4) improving non-farm rural livelihoods; and (5) technical assistance, institution building and capacity development.

To encourage adoption of the climate smart agricultural technologies by the GAFSP target groups, a digital finance scheme will be used to partly or fully support testing and demonstration of the technologies at farm level.

A family focused child nutrition activity will improve the understanding and importance of balanced family nutrition, particularly in young children. This will complement activities targeted to resource poor households in the project villages particularly those with small areas of land or without other income generating activities. A priority is to initially develop life skills such as financial literacy for target poorer, households with limited or no land resources as these skills are useful for all family activities.

3. **Enabling environment for agribusiness improvement.** The activities to link farmers to markets will address the Information and Communication Technology (ICT) weaknesses, delivery and understanding in priority product markets and linkages to appropriate financial products such as equipment lease arrangements. Households without land certificates will be assisted to formalise existing informal land use arrangements or supported to make use of unused grazing or other potential land within the village tract areas. As seasonal conditions are reported to be changing within each part of the CDZ, the project will link with other projects in the CDZ (Adaption-United Nations Development Programme [UNDP]) and the region (India and Bangladesh) to assess if medium term seasonal weather forecasts can be improved to reduce the risks to farmers of using productivity improving technologies that require up-front spending on inputs. At central level, the MoA Department of Planning (DoP) unit will be supported to strengthen the Policy Development group within the DoP and the supporting Monitoring and Evaluation (M&E) Unit.

### **1.2.3 Assumption**

#### **Outcome level**

21. A key assumption is that the MOALI line departments work closely together to implement project. The project is integrating activities that are the responsibility of several different MOALI departments plus departments of the Ministries of Commerce, Health and Education. A priority for the project steering committee and PMU will be to engage with all the participating ministries to ensure that specialized technical resources are available when needed and that ADB loan and GAFSP resources needed for specific activities are allocated to the appropriate implementing agency.

22. Project preparation activities have identified limited crop productivity is a major constraint to higher rural household incomes so activities are directed to addressing the constraints. The planned outcomes from the project depend on product and input markets for supported crops not distorted. More reliable seasonal rainfall forecasts and improved/expanded irrigation resources should lead to higher use of improved inputs

#### **Output level**

23. Longer term benefits from the new/rehabilitated irrigation infrastructure and market chain depend on sustainable management and maintenance activities including user payment mechanisms that meet the full costs of O&M.

24. Both ground and surface water resources can be affected by climate/weather variations so the planned infrastructure improvements need to be based on assessment of the underground water resources and surface water available through the existing irrigation schemes.

25. Research to date, indicates that infrastructure is one of the major constraint to improved market chain efficiency. As the project develops links and processes to work with value chain actors, the balance between the need for support to 'hard' infrastructure and supporting 'soft' activities to value chain actors to make best use of the infrastructure will be continually assessed.

26. MOALI extension staff have limited capacity to work with farmers at village level. Several development projects<sup>2</sup> in the CDZ have used to other resources, including Non-governmental Organizations (NGOs), to demonstrate and implement different technology extension approaches including demonstration plots, lead farmers and farmer field school, with the target farmer groups. The new GAFSP activity will need to use a combination of incremental funding to MOALI extension resources and funding NGOs to deliver the planned extension activities. Sustainability will need to be enhanced through a phase down of project support in the last 2-3 years of the project.

27. Currently, MOALI, the Ministry of Health and Ministry of Education each have some responsibilities at township level to deliver mother/child nutrition activities in villages. An early project activity will need to be working with the three agencies to build on their current priority maternal nutrition activities at township level.

28. A high priority of the CFAVC and GAFSP activities will be to address the limited MOALI implementation capacity and resources in the MOALI Department of Planning (DoP). The DoP is currently well under resourced (11 staff in 41 allocated positions), and will need a balance of support from the GAFSP project and increased the Government of the Republic of the Union of Myanmar resourcing, if the project interventions are going to have a sustained presence.

29. Initial work in the design process and experience from other related activities indicate that there may be smaller areas of under-utilized productive land which may available for distribution to landless households. This emphasises the need to develop non-land based activities (livestock and/or other rural income generating opportunities for land-less households).

30. Some farmers with cropping land only have informal or customary land occupancy which may, potentially be formalized leading to improved productivity as the farmer is prepared to make longer term, more substantial investments in the land and supporting improvements.

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<sup>2</sup> For example, the FAO Livestock Project, IFDC Agro-dealer Support Project and the GRET project in Saigang.

## SECTION 2 – FEASIBILITY

### 2.1 RISK MANAGEMENT

#### 2.1.1 Significant risks facing the project

31. Main risks would include:

##### Good agricultural practices dissemination:

- a) *Insufficient number of DOA-ED extension staff to coordinate and follow-up on GAP field activities, exacerbated by lack of mobility.*  
Mitigation: (i) Make extensive use of lead farmers and farmer to farmer extension; (ii) DOA-ED commitment to provide sufficient human resources at township and village tract level; and (iii) CVAFC to collaborate with DOA to provide sufficient support in mobility to DOA-ED in the target area
- b) *Promoted GAP are too complex, costly, and impractical for smallholders to follow and hence adoption of GAP is lacking.*  
Mitigation: (i) participatory development of practical GAP for resource constrained smallholders; and (ii) identify and promote only a few key agronomic improvements with promising “quick-wins” before moving to more complex ones in a second round.
- c) *Lead farmers not ready to share information or allocate sufficient time and energy to regularly convene farmer meetings at demonstration plots.*  
Mitigation: (i) design an attractive package for lead farmers to compensate for their risks and efforts; (ii) involve them as actors in extension videos; (iii) DOA-ED to give regular back-up and support; and (iv) involve as much as possible the private sector to participate in demonstrations and training provision to increase interest and trust of farmers.

##### Nutrition:

- d) *Insufficient overlap with other development agencies.*  
Mitigation: All activities will build on lessons derived from previous interventions and focus on strengthening strategic partnerships to avoid duplication and incoherence as well as to ensure synergy and complementarity of support to leverage impact. Convening platforms such as the Scaling-Up for Nutrition Network (SUN) and its respective UN, donor, business, and Civil Society network will be engaged to the extent possible through initial consultations and throughout implementation.
- e) *Insufficient institutional fabric to carry out nutrition behaviour change communication.*  
Mitigation: With support from FAO, an implementing partner will engage staff to work in close collaboration with village-level outreach officers from Ministry of Education (MOE), Ministry of Health and Sports (MOHS), and MOALI to ensure that a common understanding of roles and responsibilities is established among community workers and capacities are strengthened to contribute effectively to the improvement of the nutrition at household and individual level.
- f) *Resistance to changing dietary practices due to cultural constraints.*  
Mitigation: A methodology following behaviour change communication theory will inform all nutrition education activities to ensure that recommendations, messages and approaches for community engagement are anchored in a deep understanding of local norms, values and preferences.

## Off-farm rural employment

- g) *Creating unreal expectations of non-landowning participants.*  
Mitigation: (i) Put in place sensitization and screening processes that do not create unreal expectations of the levels of project support for the households which wish to have a livestock or micro-enterprise; and (ii) the life skills activities should provide value to households which are not able to successfully develop their preferred enterprise.
- h) *Difficulty in identifying new micro-enterprise activities*  
Mitigation: (i) use study/experience sharing visits to other villages to show possible enterprises that could be adopted; (ii) work with existing successful landholders in villages to identify opportunities where services (equipment hire, contract labour supply, specialized value adding) can be provided to the existing farmers in production and post-harvest activities; and (iii) monitor implementation of the new micro-enterprise activities to ensure that the potential markets for services or goods are not over-supplied.

## Monitoring and evaluation

- i) *M&E activities on large scale projects can become a standalone activity rather than being an integral part of the project management and planning processes.*  
Mitigation: (i) Development of the results frameworks will focus on addressing the needs of the Government of the Republic of the Union of Myanmar and the project funding stakeholders; (ii) The M&E activities will be located in the Planning Section of the MOA which is being strengthened by the Ministry to take a leading role in Ministry M&E activities. The staff allocations are at appropriate administrative levels to provide the high-level support needed; (iii) The GAFSP M&E activities will be integrated into the overall GAFSP/CFAVC M&E system so a consistent approach and data collection processes across all project M&E activities; and (iv) The Management Information System (MIS) function will be located in the government agency with ongoing responsibility for providing MIS support to the MOA so will have ongoing budget support.
- j) *Unsuitable processes at township level for cost-effectively collect information on all project participants with relevant socio-economic data which can be linked to their participation in project activities and specific inputs received from the project.*  
Mitigation: (i) User-friendly Tablet based software will greatly improve the quality and timeliness of activity and process monitoring data; (ii) The focus of data collection will be at the village tract level (i.e. Group of villages) which is the lowest level at which there is a paid government official who can be delegated with ensuring the required information is collected; (iii) Where service providers are used, their service contract will require them to collect and enter the required detailed information into the project MIS so it is accessible to the GAFSP/CFAVC M&E unit.

### **2.1.2 Environmental and social risks**

32. Main environmental risk will include: (i) Over-pumping from aquifer in the case of groundwater irrigation through tubewells; and (ii) Over-irrigation mostly from canal irrigation resulting in rise of water-table and problems of salinity. As these activities will be implemented

by ADB, their environmental safeguard will apply. Social risks are limited and relate to the institutional fabric to carry out nutrition behaviour change communication (see above).

### **2.1.3 Risk management strategy**

33. All identified risks are associated to feasible mitigation measures as described above. Internal control framework is not needed in the case of this project.

## **2.2 IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS**

### **2.2.1 Institutional Framework and Coordination**

34. The FAO TA will be part of the GAFSP initiative for Myanmar. This initiative is fully aligned to the ADB-funded Climate Friendly Agribusiness Value Chain Sector project (CFAVC). A GAFSP grant of USD 27 million will be implemented jointly with the above ADB funded project. From the GAFSP grant, FAO will receive an allocation of USD 5 million for technical support. As a result: (i) design and implementation are being carried out jointly by Government, ADB and FAO (with support from LIFT); (ii) the implementation modalities of the GAFSP will be fully aligned with those of the CFAVC; and (iii) the FAO TA will be aligned with the implementation modalities of the GAFSP. This implies that: (i) the steering committee for the FAO TA will be the one of the ADB-GAFSP project; (ii) the coordination of the FAO TA will be imbedded in the PMU of the CFAVC-GAFSP; (iii) the FAO TA will collaborate with the same Ministries and departments that will work with the ADB-GAFSP project. The implementation modalities of the ADB-GAFSP project will be described in detail in the Project Administrative Manual (PAM) of the CFAVC project.

35. ADB-FAO-GAFSP implementation arrangements. MOALI will be the EA. Implementing Agencies (IAs) will be Department of Planning (DOP), Department of Agriculture (DOA), Irrigation and Water Utilization Management Department (IWUMD), Department of Rural Development (DRD) in MOALI, and the Myanmar Trade Promotion Office (MTPO) in the Ministry of Commerce (MOC). A PSC chaired by the Minister or Deputy Minister of MOALI, and co-chaired by the Ministers of Agriculture of Magway, Mandalay and Sagaing regions of the CDZ will serve as steering committee for the project to provide oversight and policy guidance. The PSC will comprise four representatives (at the level of Director-General or above) of the Ministry of Planning and Finance (MOPF), MOC, the Ministry of Industry (MOI) and the Ministry of Natural Resources and Environmental Conservation (MONREC). Other ministries will be invited to attend as observers when specific issues of their concern are for discussion.

36. Under the guidance of Director General of DOA, a National Project Management Unit (NPMU) led by a Project Director (a seconded senior member of the DOA) and supported by an externally, competitively hired Project Manager/Adviser, and five government staff (financial officer, procurement officer, safeguards officer, M&E officer, and administrative assistant), will be responsible for overall project management, procurement and financial management. The NPMU will collaborate with project coordinators from DOP, IWUMD, DRD, and MTPO in procurement and financial matters of respective departments. The NPMU updates the project implementation progress to the PSC. The Project Implementation Consultants (PIC), a consulting firm, will support the NPMU.

37. Under the guidance and with technical support from relevant national departments, the Regional Project Implementation Units (RPIUs), chaired by regional DOA directors and supported by deputy directors from regional IWUMDs will be responsible for overseeing project implementation in each of the target regions. Under the guidance and technical support

from district administration and township committee on agriculture, the Township Project Implementation Units (TPIUs), comprising representatives of DOA, IWUMD, DRD, and the Department of Agricultural Land Management and Statistics (DALAMS) and supported by a finance and administrative assistant will be responsible for day-to-day project implementation in each target township.

38. FAO-specific implementation arrangements. The specificities of the implementation arrangements of the FAO-funded activities relate to: (i) the establishment of a lean coordination/implementation capacity for the FAO support activities within the PMU of the ADB-GAFSP project; (ii) the use of FAO procurement and financial management procedures for TA funded activities; and (iii) the compliance with specific FAO monitoring, evaluation and reporting requirements. The FAO-funded activities will be implemented directly using both M.S. 502 and M.S. 507 to deliver goods and services to project beneficiaries.

39. A Detailed description of the implementation arrangements of the GAFSP funded activities is included in Appendix II (Work Plan). The FAO-funded activities are designed to assist and improve the overall implementation of the joint ADB-FAO-GAFSP operations.

### **2.2.2 Strategy/Methodology**

40. Strategy. The joint ADB-FAO-GAFSP project aims to combine: (i) value chain development with a pro-poor focus; (ii) adaptation to climate change in order to mitigate risks associated with rainfed production; (iii) interventions on food security and nutrition mainly through income increase, awareness raising and education; and (iv) household income diversification through off-farm and small livestock activities. In terms of more specific pulses and oilseeds value chain development, the joint project aims at: (i) targeting improved farm performance through increasing farm productivity, reducing production costs and improving quality of outputs to ease compliance with international market standards; (ii) providing improved access to finance for private sector investors in post-harvest, processing and export activities based on market conditions and clear evidence of demand; and (iii) providing public good such as food safety laboratories and foundation seed of improved varieties.

41. Consultation process during design. The GAFSP proposal and the detailed project proposal were prepared through multiple consultations with directors and other technical staff of relevant departments within MOALI, discussions with development partners, and through multiple consultations and validation workshops where feedback and suggestions on this proposal were solicited. The validation workshops were headed by the Deputy Minister of MOALI, with participation by Members of Parliament, and senior officers of each department within MOALI at the Union and regional levels (from CDZ), development partners, NGOs, private sector entities, farmer's and women's groups, farmer associations, and individual farmers from the CDZ. Invitations to the validation workshops were prepared with emphasis on ensuring high participation by women and women's groups. All consultations were conducted using simultaneous translation. The consultation process yielded useful comments about how to improve the proposed Project activities, and deepened the understanding of the needs of the poor in the CDZ. A summary of the consultation process is provided as an annex to the GAFSP proposal (Documents n. 10 and 11 of the GAFSP document checklist).

42. Consultation and participatory process during implementation. The GAFSP activities and M&E processes will be facilitated and monitored at village tract level, which is the lowest level at which the Government of the Republic of the Union of Myanmar has public servants.



Where possible, project activities at village tract level will link with existing village development committees to ensure strong village-level engagement in planning and prioritising activities which will be facilitated by NGOs with local experience (there are 4-5 NGOs currently working in the project area). Based on the activities prioritized (nutrition awareness, agricultural infrastructure and/or productivity, land tenure issues or including poorer households with or without small areas of land who wish to develop an income generation activity), the relevant Ministry/department implementation team will work with groups of target households.

43. During the last quarter of each financial year, the tract government representative will work with a nominated facilitator and technical implementers to review the ADB-FAO-GAFSP activities over the previous 12 months and plan future activities. For livelihood activities and infrastructure investments, a key element will be to assess the success of the implemented activities, the skills developed and commitment of the project groups to implement more complex activities.

44. Flexibility will be built in the implementation arrangements through: (i) steering committee meeting and providing guidance when needed on an ad-hoc basis; (ii) work plan and budget tailored to changing needs on an annual basis; and (iii) allowing regional administration (under the coordination of the regional DoA) to contribute to planning, monitoring and implementation process.

### **2.2.3 Technical Support**

45. FAO support to the joint ADB-FAO-GAFSP project is of technical nature and will bring together technical support and capacity development. The specific GAFSP component implemented by FAO aims at providing support to all operations based on FAO's comparative advantage. These activities will include: (i) dissemination of Good Agricultural Practices (GAP); (ii) support to household nutrition improvements; (iii) promotion of off-farm employment; and (vi) capacity development on monitoring and evaluation. These activities are described in detail in Appendix II (work plan).

### **2.2.4 Government Inputs**

46. Government contribution has been estimated at USD 2.5 million. It will include recurrent cost for local staff, as well as operation and maintenance cost related to management and implementation activities (office space, equipment, staffing, transport, coordination and oversight).

47. Beneficiary contributions will come in the form of co-financing the purchase of recommended agricultural inputs and equipment.

48. Prior obligations/prerequisites that the government will fulfil before signature of the Project Document will include be defined during the final design mission that will take place in December 2017.

### **2.2.5 Resource Partner Inputs**

49. As a complement to the implementation arrangements described above for the ADB-FAO-GAFSP project, specific FAO-funded human resources for implementation will include:

### International (main profiles)

- a) Chief Agronomist (36 months). She/he will take responsibility for the coordination of all FAO-funded support activities and implementation of agriculture related activities.
- b) Plant protection specialist (six months).
- c) Nutrition sensitive programme expert (ten months).
- d) Multisector M&E specialist (ten months).

### National (main profiles)

- a) Agronomist (45 months).
- b) Extension specialist (42 months).
- c) Nutrition coordinator (38 months).
- d) Multi sector/location M&E implementation specialist (full time - 72 months).
- e) Off-farm income generation specialist (part time).

50. The project will recruit short-term national consultants for dissemination of GAP (mainly through Farmer Field School [FFS]), nutrition, off-farm employment as well as monitoring and evaluation activities. Technical support and backstopping will be supplied from the FAO Regional Office and headquarters. This will involve communications with the Chief Agronomist on technical issues during implementation.

51. Arrangements for sufficient working space for the FAO team including international and national consultants, short term consultants and office staff and meeting room will be made in the central PMU of the ADB-GAFSP project. The FAO TA will fund office equipment including computers; sufficient GPS units, cameras, laptop computers and LCD projectors for office and field use; a large printer/photocopier, a safe for petty cash, and equipment for refreshments and snacks. The project will procure one vehicle for the life of the project, and will hire additional vehicles as required. Operational arrangements for recruitment of staff, procurement of equipment and supplies, contracting entities through Letters of Agreement will be conducted according to FAO procedures. Financial management, auditing and reporting will be conducted according to FAO procedures. The project will be implemented with operational oversight from the FAO Representative Office, Myanmar, as budget holder and with the technical supervision of the designated Lead Technical Officer (LTO). In accordance with FAO practices, the project will be supported by the Project Task Force, serving as a management and consultative body for FAO projects. The chief agronomist in collaboration with the national M&E specialist will be responsible for the preparation and submission of the required periodic reports following reporting guidelines of the implementing parties and resource partner.

### **2.2.6 Management and Operational Support Arrangements**

52. The details of implementation arrangements by sub-component are presented in Appendix II (work plan). Specific aspects of implementation arrangement are presented below.

#### Procurement

53. Careful procurement planning will take place to ensure that goods, services and works are procured in a timely manner, on a “Best Value for Money” basis, and in accordance with the Rules and Regulations of FAO. Procurement and delivery of inputs will follow FAO’s rules and regulations for the procurement of supplies, equipment and services as described in relevant FAO Manual sections, and according to relevant FAO guidelines and procedures.

54. Manual Section 502: “Procurement of Goods, Works and Services” establishes the principles and procedures that apply to procurement of all goods, works and services on behalf

of the Organization, in all offices and in all locations, with the exception of the procurement actions described in Appendix A – Procurement Not Governed by Manual Section 502.

55. Manual Section 507 establishes the principles and rules that govern the use of Letters of Agreement (LoA) by FAO for the timely acquisition of services from eligible entities in a transparent and impartial manner, taking into consideration economy and efficiency to achieve an optimum combination of expected whole-life costs and benefits (“Best Value for Money”).

56. The FAO Country Representative will act as budget holder for the project, and will act to approve annual procurement plans for major items which will be the basis of requests for procurement actions during implementation.

57. The procurement plans will include a description and quantities of the goods, works or services to be procured, estimated budget and source of funding, schedule of procurement activities and proposed method of procurement. It will, as far as possible, group together items with similar specifications, deadlines and destinations from different projects. In situations where exact information is not yet available, the procurement plan should at least contain reasonable projections that will be corrected as information becomes available.

#### Technical and operational support

58. FAO’s technical support arrangements for the project will consist of technical supervision by the designated Lead Technical Officer (LTO), the Regional Senior Animal Production and Health Officer based in the FAO regional office in Bangkok.

59. FAO’s operational and administrative support arrangements will consist of support from the FAO country office. The cost for operational and administrative support arrangements from the FAO country office are included in the project budget in the form of full-time Programme/Monitoring Officer Assistant, and full-time Procurement/Logistics assistant.

60. The budget holder may also request operations support and advice at various stages throughout implementation on a wide range of issues related to financial performance, reporting obligations, human resources and other issues.

#### **2.2.7 Information Technology**

61. The project will introduce an ICT-based digital finance compensatory balance scheme and of collect mobile, a fast, intuitive and flexible Free and Open Source Software (FOSS) for data collection in field-based surveys, developed in FAO-Forestry.

62. The associated ADB-funded CFAVCP project will, through a competitive tender, invite Financial Service Providers (FSPs) to research and develop a new digital financial service customized for: (i) meeting the working capital requirements of 35 000 smallholder bean/pulse/oilseed producers — providing, annual digital credit access of up to MMK 136 500 (USD 100) per acre for up to three acres per client; and (ii) the investment and initial working capital requirements of 3 000 non-land owning entrepreneurs – providing a one-off investment of up to MMK 400 000 (USD 300) for financially robust micro-investments. The new financial service will be secured against a USD 100 conditional cash transfer by the project from the GAFSP fund to each participating smallholder farmer or entrepreneur, to be applied as a “compensating balance<sup>3</sup>” in the smallholder’s name, for a term of the remaining life of the project at the time of establishing the account (up to seven years). The compensating balance is

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<sup>3</sup> The use of compensating balances is a well-established microfinance practice — mandatory savings for access to credit.

a minimum balance maintained in a client's deposit account and used to offset the cost (risk and transactional) incurred to set up the loan.

63. Project beneficiaries will be mapped using **Collect Mobile** which is a fast, intuitive and flexible FOSS for data collection in field-based surveys, developed in FAO-Forestry. This Android app allows the completion of complex data structures and it can be adapted to numerous different contexts and topics. Its many features include:

- On-the-fly validation to improve data quality.
- Handling of large lists of suppliers or other attributes.
- Geo-location through embedded GPS.
- Inputs elaboration and attributes calculation for quality control in the field.
- Integration with Saiku, another FOSS for data management, analysis and export.
- Integration with Collect, another FAO FOSS for data management, analysis and export.

64. By using Collect Mobile, project and MOALI staff can geo-locate project beneficiaries using phones or tablets with embedded GPS, collect and analyse data on project activities using field-based surveys, and optimize value chain development, nutrition, land administration activities. The tool enables fast, intuitive and flexible data collection with on-the-fly diagnosis of what is preventing farmers from producing more and better-quality products. It can handle large lists of project beneficiaries. Data can easily be exported in common formats, and the immediate compatibility with Google geospatial tools allows for powerful data visualization and easy sharing. In terms of value chain development, Collect Mobile can promote direct interaction between firms and their suppliers, and enables the firms to better target their support – from advice on improved product quality to farm management.

## **2.3 MONITORING, PERFORMANCE ASSESSMENT AND REPORTING**

65. Current Government of the Republic of the Union of Myanmar reporting systems focus on financial reporting rather than collecting and evaluation (M&E) information that can be used to inform the project management team and the Government of the Republic of the Union of Myanmar, ADB and GAFSP on project implementation and processes. Multi-sector projects are often donor funded and have unique M&E systems put in place for the project supported by international consultants or local NGOs implementing the activities. Internet connections can be limited in the target CDZ townships and the Planning and Budget sections of the Township Agriculture Offices are often understaffed and have limited computer and data handling skills. Currently the government agencies at township manually collate the financial information on activities monthly and report the aggregated data to their district level office also to the town Department of Planning and Budget (DPB).

66. Since November 2017, the EU-funded *My-Governance* project has been supporting DRD to create a Sector Results Framework (SRF) for the monitoring and evaluation of all DRD programming. The SRF has been formally endorsed by the DRD in July 2017. In September 2017 the M&E Unit within the DRD, which the TA helped to form and capacitate, was elevated into a full M&E Division within the DRD. The original M&E unit which consisted of five staff members will be expanded to 28 staff positions at the DRD headquarters and two M&E staff officers will be appointed in every DRD township office bringing the full M&E staffing within the DRD to just under 600 persons. Building on what has been achieved with M&E at the DRD level, the second phase of EU-funded M&E technical assistance will scale up M&E good practices and capacity to the whole of MOALI with a view to effectively

measuring the progress of implementation of the ADS. It will do so by: (i) designing a results-based M&E system and frameworks; (ii) developing capacity for the M&E system; and (iii) operationalizing the M&E system.

### **2.3.1 Scope and Purpose**

#### **2.3.1.1 Monitoring and Process Evaluation**

67. The main M&E resources will be based in the DoA and DoP at central level and be managed and supported by the PMU. At region and township level, the DoA Departments of Planning and Budget (DPB), supported by the region and township DPB will be responsible for coordinating collection of specific information, particularly financial information) and ensuring this is transferred in a timely manner upwards to the regional MOALI offices which will then pass the collated information onto the MOALI PMU.

#### **2.3.1.2 Personal information security**

68. As individual household information will be held in the project MIS, special attention will be given to maintaining security and anonymity of personal data in the database. This will also apply to any information on project grants or project related finance that each family have taken up. All households will be allocated a unique identifier number with the details of the household name and location held in a separate secure file.

#### **2.3.1.3 Planned M&E activities**

69. The M&E activities of the GAFSP initiative will be complementary to those of the M&E technical support provided under the EU-funded “*My-Governance*” project described above. The GAFSP-funded M&E activities will include (i) integrating the GAFSP M&E system into the M&E system being established in MOALI; (ii) establishment of data collection capacity in the 14 townships of the project area (one specialist per township with motorcycle and tablet); (iii) establishment of M&E capacity at central level in MOALI for coordination, implementation and data analysis; (iv) providing capacity development on M&E of decentralized staff and project beneficiaries; (v) developing an appropriate management information system to collect, collate and manage the M&E information required by the stakeholders; and (vi) implementing a series of workshops and conferences to share project experience and learnings which can be used by implementing agencies in other parts of Myanmar and provide a forum for improving project and technical implementation. A specific capacity of monitoring and impact assessment of the nutrition interventions will be set up (see section on nutrition above) and will be harmonized with the general M&E system of GAFSP and MOALI.

#### **2.3.1.4 Monitoring assumptions and the risk log**

70. The project six monthly reports will report on factors impacting on the project design assumptions and changes in the risks noted in the risk log. A traffic light system<sup>4</sup> will be used to report on the assumptions and risk log.

71. Each year as part of annual work planning and budgeting, the risk log would be subject to a full revision. A draft risk log is provided in Appendix IV. Risks rated as Moderate or High are documented in the draft Risk Log and the specific positions and responsibilities for monitoring and acting on the risks will be noted there in the final design document.

#### **2.3.2 Focus on Achievement of results (Outputs and Outcome)**

72. The MOALI PMU will be responsible for planning, implementing and reporting on all monitoring (on a six-monthly basis), evaluation (implementation process and mid-term) and completion reports. These reports will be based on information collected at village level by General Administration Department (GAD) and/or project contracted staff using specialized software securely loaded onto Tablet computers held at tract level. Updated data will be automatically uploaded to the central MIS when internet/telephone connections are available.

##### **2.3.2.1 Supervision**

73. The proposed supervising entities are ADB and FAO. The GAFSP project will also take advantage of the well-established administrative capacity available through both agencies to ensure effective and transparent implementation of the proposed Project.

74. To ensure effective and timely implementation, ADB and FAO will conduct joint semi-annual supervision missions to monitor progress of project implementation and recommend any necessary changes to improve the performance of the Project in meeting its overall objectives.

75. The investment components will be supervised by ADB which is an important partner of MOALI in Myanmar working with the government, development partners, NGOs and the private sector throughout the country, including the CDZ. ADB is particularly well positioned to supervise the proposed Project as it is also implementing the investment and value chain aspects of the CFAVC project and the Irrigated Agriculture Inclusive Development Project. The Technical Assistance component of CFAVCP will be supervised by FAO.

76. Based on the planned project start-up in the second half of 2018, the mid-term review should be scheduled for early 2021. ADB and FAO will nominate an independent review mission leader plus three-four technical resources to address the priority technical areas.

77. Terms of reference for the key M&E staff including required capacity building will be included in the final design document.

#### **2.4 COMMUNICATION**

78. The CFAVC/GAFSP project communications approach will be based on FAO guidelines and ensure that all project stakeholders have opportunities to participate. Within the project, a structured series of review and planning workshops at village, township, regional and central level will lead and inform the annual planning and budget activities. Collated activity, output and short term outcome information from the project MIS will be used to provide

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<sup>4</sup> Based on a one-page standard traffic light based assessment where Green is Good, Orange (needs to be monitored more closely) and Red (urgently needs to be addressed as documented in the progress report, or raised at a higher level). This simple approach highlights areas of the design that need closer monitoring.

objective feedback on the project activities. Agency implementing staff from outside the participating village tracts and townships would be invited to participate in the planning activities, to inform them of successful project interventions and also to learn of activities and issues that may not have been incorporated into the planning process.

79. An important member of the MOALI Planning Department will be a knowledge management specialist who would be tasked with reviewing collated information and the results of specific monitoring or short-term evaluation studies to advise the project manager and chief agronomist where there are gaps in the information being collected and ways in which the information can be communicated to interested stakeholders.

80. The Chief agronomist, supported by FAO supervision and communications staff, will ensure that the project uses FAO's Environmental and Social Management Guidelines<sup>5</sup>. The chief agronomist will liaise with the contractor implementing the GAFSP funded impact and process evaluation activities to ensure the two groups of work complement each other and do not create stakeholder overload in the collection of information.

81. A combined CFAVC/GAFSP web site will provide a primary location where project implementation information is available and M&E information which may be useful to implementers and participants in the CDZ can readily access the data. The web site will link with the FAO and ADB web sites, where relevant technical information will be used to other similar ago-climatic zones.

82. As the project is focusing on improving rural household incomes, an important element on the web site will be providing case studies and survey results showing the outcomes of project interventions. The web site will also provide links to project and other technical information that will be of use to stakeholders.

83. An additional means to increase project visibility and to improve the rigour of analysis of project interventions will be to develop closer links with the University of Agriculture to encourage final year-students and Masters students to use project activities as their final year project or thesis topics. This will both provide more rigours analysis and also link students with farmers in activities designed to improve productivity.

## **2.5 PROVISION FOR EVALUATION**

84. There will be ongoing process evaluation activities using information the project MIS and specific short questionnaires administered to project implementers and/or participants in capacity building activities. Where possible, these process evaluation activities including output and outcome information will be administered through short tablet or smartphone based<sup>6</sup> questionnaires which will allow information to collected using a standard format so it can be aggregated across villages and townships to enhance the quality of the information received.

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<sup>5</sup> In particular, and specifically, the Environmental and Social Standards therein related to Disclosure and Free, Prior and Informed Consent as set out in [FAO's Policy on Indigenous and Tribal Peoples](#) and [FAO's Guidance Note on Operationalizing Free, Prior and Informed Consent](#).

<sup>6</sup> Experience from implementing evaluation questionnaires to respondents with low education levels indicates that smartphone provide a less intrusive tool for data collection and are easier to handle in village level conditions. Tablets do have advantages if respondents are expected to select from a range of options.

### **2.5.1 Impact evaluation**

85. An organization with experience in designing and implementing large scale quantitative and qualitative impact studies of complex, multi-complex projects will be contracted to design and implement the project impact studies using a cost-effective blend of large scale baseline and completion surveys and innovative tools to collect additional data during implementation to triangulate and elaborate the impact survey data. The Institute of Poverty Alleviation (IPA) is in discussions with the Government of the Republic of the Union of Myanmar and FAO on undertaking this role. These negotiations will continue after the draft CFAVC/GAFSP project design has been accepted by Government of the Republic of the Union of Myanmar. The funding for the impact evaluations will be additional to the current allocation for the GAFSP activities.

### **2.5.2 Final evaluation**

86. An independent Final Evaluation is recommended to be launched within six months prior to the actual completion date (NTE date) of the project. It will aim at identifying project outcomes, their sustainability and actual or potential impacts. It will also have the purpose of indicating future actions needed to assure continuity of the process developed through the project. FAO Office of Evaluation, in consultation with project stakeholders, will be responsible for organizing and backstopping the Final Evaluation.

## **SECTION 3 - SUSTAINABILITY OF RESULTS**

### **3.1 ENVIRONMENTAL SUSTAINABILITY**

87. Environmental Sustainability is one of the three pillars of the Sustainable Development agenda upheld by the United Nations, the other two being Social and Economic Development. Environmental Sustainability refers to the [maintenance](#) of the [factors](#) and [practices](#) that [contribute](#) to the [quality](#) of [environment](#) on a [long-term](#) basis.<sup>7</sup> Environmental sustainability refers to a situation in which the demands placed on the environment can be met without reducing its capacity to allow all people to live well, now and in the future.

88. The main activities of the project contributing to Natural Resources Management (NRM) and improved ecosystem conservation include:

- a) Small scale irrigation using water saving technologies such as sprinklers and drip irrigation will boost water efficiency.
- b) Improved access to inputs including seeds, fertiliser and mechanized labour in conjunction with GAP dissemination are key to environmental sustainability. Capacity development in improved technologies and economies of scale in production, processing and marketing are expected to contribute to livelihood resilience to Climate Change;

### **3.2 GENDER EQUALITY**

89. According to the 2014 Myanmar Population and Housing Census, agriculture continues to be a key pillar of Myanmar's economy, largely consisting of farming, livestock production, forestry, and fisheries. Women play a key role in each of these sectors, and data shows that women constitute a significant portion of the agricultural population, with an estimated 51 percent participation in the targeted provinces (ADB, 2016). Most of the rural population is

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<sup>7</sup> A state in which the demands placed on the environment can be met without reducing its capacity to allow all people to live well, now and in the future.



engaged in subsistence farming, which is largely unmeasured, however women play a key role. The Myanmar Census of Agriculture recorded that women perform most of the tasks related to crop cultivation, including planting, caring, weeding, transplanting, harvesting, threshing, care of livestock, post-harvest operations and marketing (FAO, 2016). These tasks are in addition to their responsibilities for domestic and care work, such as gathering fuel for cooking and water for domestic use, meal preparation and caring for children and other household members. Women's participation in agriculture varies throughout the country, and in the Central Dry Zone (Magway, Mandalay, and Sagaing) more farm labours are women due to the high rate of male migration. While attention to women's participation in agriculture is improving with enhanced data and information, their specific needs as farmers are not always acknowledged and they continue to face significant barriers in accessing services, training and finance. Lack of access, control, and ownership of land are also major constraints for female farmers. In 2010, 9 out of 10 agricultural households had access to agricultural land at the national level, of which 90 percent were male-headed and 10 percent were female-headed agricultural households (female headed households have smaller size parcels). Climate change is predicted to place an additional burden on all farmers, particularly women. Women farmers are vulnerable due to their limited access to productive agriculture assets as well as existing inequalities, responsibilities and roles. (Myanmar Climate Change Strategy and Action Plan (MCCSAP) 2016-2030). Improving women's resilience to climate change by supporting women's leadership is set out as a priority in the MCCSAP.

90. Myanmar has institutional mechanisms in place to support implementation of its commitments to gender equality and women's empowerment. Under the overall leadership of the Ministry of Social Welfare, Relief and Resettlement, the Department of Social Welfare (DSW) serves as the government focal point on gender equality and women's rights. The Myanmar National Committee for Women's Affairs is designated as the national women's machinery.

91. A Gender Action Plan (GAP), Appendix VII, has been prepared by ADB and includes gender actions and numerical targets to promote women's voice and active participation in project activities. Implementation of all the GAP activities is aligned and meant to support implementation of Myanmar Agricultural Development Strategy and the National Strategic Plan for Advancement of Women (NSPAW).

### **3.3 INDIGENOUS PEOPLES<sup>8</sup>**

92. The biggest ethnic group in Myanmar is the Bamar. The Government recognizes 135 distinct ethnic groups which together constitute about 35 percent of the total national population. The largest minority groups are the Shan (nine percent) and the Karen (7 percent), while the remaining groups – which include the Mon, Rakhine, Chin, Kachin, Karenni, Kayan, Chinese, Indian, Danu, Akha, Kokang, Lahu, Naga, Palaung, Pao, Rohyinga, Tavoyan, and Wa groups – each constitute 5 percent or less of the population.<sup>9</sup> The Shan, Mon, Kayin, Kayah, Chin, Kachin and Rakhine have states named for them: this naming reflects their attachment to a specific landscape and geographical space. Figure 1 shows the spatial distribution of the main ethnic groups. As clearly indicated, the CDZ is almost solely Bamar ethnicity.

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<sup>8</sup> Indigenous peoples is the internationally agreed term (United Nations Declaration on the Rights of Indigenous Peoples) and it encompasses tribal peoples, natives, First Nations, *pueblos originarios*, *pueblos autóctonos*, nomadic and pastoralists, aboriginal and traditional peoples.

<sup>9</sup> United States Agency for International Development (USAID) Land Tenure Burma Profile, undated.

93. In the project area, the vast majority of the population in the Project areas is Bamar. During prefeasibility site visits carried out from September 2016 to January 2017) by the social safeguards team and project engineers of ADB and MOALI to three irrigation schemes in Pakokku, all households identified themselves as Bamar, and local leaders and staff from the IWUMD of MoALI also confirmed 100 percent Bamar ethnicity in the community. The situation of the ethnic minorities in the project area can be summarized as follows. The ethnic minority population in Pakokku is approximately 0.188 percent, meaning there would be less than two EM HH for every 1 000 Bamar HHs. In Magway the ratio is 0.21 percent EM HHs, equating to 2.1 EM HHs for every 1 000 Bamar HHs in the area. Mandalay is slightly higher due to the upland and highland areas to the north east, but basically exhibits the same local EM frequency in lowland areas. The project activities will be implemented in the lowland, flat areas of the Central Dry Zone of Myanmar.

94. An Ethnic Minority Development Framework (EMDF) has been prepared by the ADB design team. FAO technical assistance interventions will align with that framework. The underlying feature of the EMDF is inclusion and participation. The framework recommends action to maximize participation and consultation with any minority households should they be encountered. The national safeguards specialist in the project implementation team will undertake subproject screening to ascertain the presence of any ethnic minorities and where they are present, will include actions from the EMDF as appropriate.

### **3.4 HUMAN RIGHTS BASED APPROACHES (HRBA). INCLUDING RIGHT TO FOOD, DECENT WORK, ACCOUNTABILITY TO AFFECTED POPULATIONS**

94. The project will contribute to the achievement of the right to adequate food in Myanmar by promoting productivity and agriculture diversity, income generation of farmers, and supporting nutrition improvements, especially among pregnant and lactating women, through behaviour change communication.

95. The project will promote decent rural employment, aiming at the creation of more and better jobs in rural areas, especially for youth and women, and therefore at the progressive realization of the right to Decent Work for rural people, in accordance with the four Pillars of the Decent Work Agenda protection<sup>10</sup>. Both on-farm and off-farm training intervention will ensure that decent rural employment according to FAO and international standards are included<sup>11</sup>. In addition, ADB and FAO project social safeguards will apply and will be monitored during project implementation.

96. There is a potential risk that some households may benefit from agricultural interventions disproportionately due to different landholding sizes. The project, particularly through its capacity building support at Township and village level, will ensure the participation of farming households with smaller landholdings and other constraints, and their benefiting from project opportunities.

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<sup>10</sup> Namely: employment creation and enterprise development (Pillar I); social protection (Pillar II); standards and rights at work (Pillar III); and governance and social dialogue (Pillar IV).

<sup>11</sup> Decent rural employment refers to any activity, occupation, work, business or service performed for pay or product by women and men, adults and youth, in rural areas that: (i) Respects the core labor standards as defined in ILO conventions (no child labor, not forced labor, no discrimination at work, guaranteed freedom of association); (ii) provides an adequate living income; (iii) entails adequate degree of employment security and stability; (iv) Adopts sector-specific minimum occupational safety and health measures; (v) Avoids excessive working hours and allows su-cent time for rest; and (vi) Promotes access to adapted technical and vocational training.

97. Due to rapid outmigration, particularly of men, project activities pay particular attention not to increase women's labour and time burden as this can be detrimental for health and wellbeing as well as sustained equitable development.

### **3.5 CAPACITY DEVELOPMENT**

97. Capacity development will be an important activity of the project and in particular of the FAO TA interventions. Capacity development will take place at central, provincial and township and local level. At central and provincial level, MOALI and other implementing agencies and provincial departments will be capacitated in: (i) Good agricultural practices dissemination (training of trainers); (ii) land administration services provision and participatory land management planning; (iii) nutrition aspects and specific nutrition behaviour change communication; and (iv) monitoring and evaluation as well as mobile platform establishment and operation. Local level capacity development will be mostly on good agricultural practices covering both production and post production activities.

## Appendices

### Appendix I: FAO Logical Framework Matrix<sup>12, 13</sup>

Activities and inputs are detailed in the following Appendix. These relate to the whole joint ADB-FAO interventions as impact and outcomes will only be achieved through joint interventions.

Results Chain	Indicators				Assumptions
	Indicators	Baseline	Target	Means of Verification (MOV)	
<b>Impact (GAFSP):</b> Contribution to 2030 Agenda for sustainable development in Myanmar	G.1. Ending poverty (SDG 1) G.2. Improving food security (SDG 2)	Depending on progress made at country level	Depending on Government target	Impact assessment survey	
<b>Overall Outcome (project development objective)</b>  Create an enabling environment that reduces the incidence of poverty, food insecurity and malnutrition among the rural poor of the project area	<u>PDO 1.</u> Project household net income increased (GAFSP Tier 1)	2016 baseline=MMK 75 000	+ 20 % increase	Baseline and completion impact studies <sup>14</sup> .	(i) MOALI line departments work closely together to implement project; (ii) Limited crop productivity is a major constraint to higher rural household incomes; and (iii) Product and input markets for supported crops are not distorted
	<u>PDO 2.</u> Yields of project supported crops increase (GAFSP Tier 1)	<u>2016 baseline</u> Monsoon Paw San rice seed yield:2.6 tonnes/ha and HYV rice seed 3.4 tonnes/ha, winter	+ 25 % increase	Records from farmers, seed sellers and DoA	More reliable seasonal rainfall forecasts and improved/expanded irrigation resources lead to higher use of improved inputs

<sup>12</sup> To support strategic planning, the results matrix and the work plan and budget describe the entire chain of inputs, activities, outputs, outcomes and strategic goals. It provides an effective and transparent linkage between means and ends.

<sup>13</sup> Designed according to GAFSP M&E guidelines. Including CFAVC indicators can be easily done before the Fact Finding mission.

<sup>14</sup> Income is measured through a production-based approach (revenues minus costs), and home-produced food that is not sold but is consumed by the household is valued as income.

Results Chain	Indicators				Assumptions
	Indicators	Baseline	Target	Means of Verification (MOV)	
		chickpea: 1.6 tonnes/ha; green gram 1.1 tonnes/ha; and sesame 0.8 tonnes/ha		demonstration plots <sup>15</sup>	
	<u>PDO 3.</u> Food Insecurity Experience Scale (FIES)	2016 baseline = 17.8%	5% decline	8 question survey module	
	<u>PDO 4.</u> Minimum Dietary Diversity Score for Women (MDD-W) and young children	Tbd	20% increase	Specific MDD survey <sup>16</sup>	
<b>Outputs:</b>  1. Critical agribusiness value chain infrastructure improved	1.1 Incremental area under climate-smart irrigation (GAFSP Tier 2)	0	10 770 ha	CFAVCP/GA FSP M&E MIS	(i) New/rehabilitated irrigation and market chain infrastructure will be maintained and sustainably managed; and (ii) Water resources of suitable quality are found and the supply is not constrained by climate/weather variations
2. Climate smart and nutrition sensitive agriculture promoted	2.1 Number of smallholders receiving productivity enhancement support, gender disaggregated,	0	35 000 HH	CFAVCP/GA FSP M&E MIS	MOALI extension staff, supported by project resources, engage effectively with target rural households

<sup>15</sup> Crop yields are value weighted across crops at the farm level.

<sup>16</sup> The survey will measure: (i) percentage of women years 15-49 consuming number of food groups out of 10 (5 being cut off); and (ii) Proportion of children 6-23 months of age who receive foods from 4 or more food groups (of 7).

Results Chain	Indicators				Assumptions
	Indicators	Baseline	Target	Means of Verification (MOV)	
	climate-smart agriculture support (number of people) (GAFSP Tier 2)				
	2.2 People receiving improved nutrition services (GAFSP Tier 2)	0	154 000 persons (equivalent to 35 00 HH)	CFAVCP/GA FSP M&E MIS	MOALI, Department of Health and Department of Education cooperate at township level to deliver mother/child nutrition activities
3. Enabling environment for agribusiness improvement	3.1 Households who have developed successful off-farm activities	0	3 000 HH	CFAVCP/GA FSP M&E MIS	Support from Department of Rural Development of MoALI development is made available
	3.2 Households satisfaction with land administrative services to secure tenure over their land	0	80% of HH receiving land administration services	CFAVCP/GA FSP M&E MIS	Under-utilized productive land is available for distribution to landless households. Informal land occupancy can be formalized leading to improved productivity.

## Appendix II: Stakeholder Engagement Matrix

### 1) Stakeholder Consultation

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Expected timing (for Stakeholder Engagement Plans Only)	Comments
Farmers/Value chain actors	Direct beneficiary	Local community	Field mission, consultation meetings	Reflected in project design/document		
Government officials	Direct beneficiary	Regional government institution/body	Consultation meetings	Reflected in project design/document		
Government officials	Direct beneficiary	National government institution/body	Consultation meetings	Reflected in project design/document		
International Non-Governmental Organization (INGOs)	Indirect Beneficiary	Non-governmental Organization	Consultation meetings	Reflected in project design/document		
ADB	partners	Non-governmental Organization	Consultation meetings	Reflected in project design/document		

(+) Add stakeholders as necessary

### 2) Grievance Mechanism

Focal Point Information	Project Management Unit (PMU)
Contact Details	Focal point will be assigned by PMU
Explain how the grievance mechanism has been communicated to stakeholders	A grievance mechanism will be set up for the project. It will be designed to enable the project to promote openness and transparency at the local level, increase project ownership, facilitate beneficiaries and stakeholders to share concerns and suggestions for the project staff to adequately respond to them. Project Management Unit (PMU) will be assigned as responsible unit for day-to-day matters related to grievance mechanism and reporting. The PMU will provide resolution to the grievance or complaint. In the meantime, any disputes arising in villages or within households due to the project activities are referred to the local government authorities, who will inform the PMU.

3) **Disclosure** (For moderate an high risk projects only)

Disclosure Means		
Disclosure information/document shared		
Disclosure dates	From: <a href="#">Click here to enter a date.</a>	To: <a href="#">Click here to enter a date.</a>
Location		
Language(s)		
Other Info		

(+) Add disclosure as necessary



### Appendix III: project work plan (including targeting and description of activities)

62. The FAO interventions within the Myanmar GAFSP will be part of a joint set of activities implement by ADB and FAO. The figure below presents the allocation of main activities of the GAFSP according to implementing agency (ADB and FAO). A joint document describing in details both ADB and FAO activities has been prepared. It can be made available upon request.

Figure 1: allocation of tasks between ADB and FAO

Funding agency	Implementing entity	OUTCOME 1: Critical agribusiness value chain infrastructure improved and made climate resilient	OUTCOME 2: Climate smart (and nutrition sensitive ) agriculture promoted	OUTCOME 3: Enabling environment for agribusiness enhanced
GAFSP	FAO		<p><u>Good Agricultural Practices (GAP)</u> (i) elaboration of protocols and manuals; (ii) training of trainers; (iii) guidance in field roll out; and (iv) quality control</p>	<p><u>Nutrition improvements</u>: (i) CD at township level; (ii) nutrition behaviour change communication; and (iii) impact assessment</p> <p><u>Support to off-farm rural employment</u> through (i) survey of off-farm opportunities, (ii) apacity development/training and (iii) funding from the compensating balance scheme of the Agriculture Digital</p> <p><u>M&amp;E system</u>: CD for establishment and operation of M&amp;E system</p>
	ADB	<p><u>Small scale irrigation establishment of tube-wells with sprinklers and drip (prior compliance with environmental standards ensured)</u></p>	<p><u>Good Agricultural Practices (GAP)</u> dissemination (roll out in the field)</p> <p><u>Promotion of Mechanization</u> through private sector</p> <p><u>Agriculture Digital Finance Services</u> through compensating balance scheme for borehole irrigation, upgraded canal irrigation, seed production, mechanization, GAP and micro-enterprises</p>	<p><u>Land administration</u>: (i) institutional capacity building on land management planning and administration/ management services; and (ii) fostering demand for land administration services at village level</p> <p><u>Promoting green finance</u></p> <p><u>Provision of weather, market and financial services information</u> to producers, traders, processors, etc.</p> <p><u>Policy unit of MOALI</u> on (i) competitiveness and profitability of key value chains; (ii) how to access high-end markets (i.e. Japan, Korea, EU); (iii) seed certification; and (iv) geographic indication;</p>
ADB LOAN	ADB	<p><u>Infrastructure for seed multiplication: rehabilitation of seed farms</u></p> <p><u>Construction and upgrading of food safety infrastructure</u></p> <p><u>Farm feeder road upgrade</u></p> <p><u>Surface Irrigation improvements</u>: (i) rehabilitation of minor irrigation canals and reservoirs; and (ii) installation of tubewells</p>	<p>Improve acces to <u>improved seeds and agrochemicals</u></p> <p><u>Capacity building for agribusinesses</u> on ASEAN codes of practice for drying and storing, food safety standards, GMP and HACCP, use of test kits, commodities standards specifications, marketing and negotiation skills</p>	

63. The below work plan relates only to the FAO-implemented activities. The outcome numbering is based on the structure of the full GAFSP initiative as presented in Figure 1 above.

FPMIS Work Plan<sup>17</sup>:

	<b>Results Chain</b>	<b>Expected Dates</b> (expressed in project-month (PM) with 60 PM = total)	<b>Actual Dates</b>
<b>Task</b>	<b><u>Outcome 2. Climate smart and nutrition sensitive agriculture and agribusiness promoted</u></b>		
2.1	Dissemination of Good Agricultural Practices (GAP)		
2.1.1	Identification and improvement existing GAP material	PM 3-6	
2.1.2	Conduct training of trainers (for leading farmers)	PM 9	
2.1.3	Implement roll out at village level	PM 10-54	
<b>Task</b>	<b><u>Outcome 3. Enabling environment for agribusiness enhanced</u></b>		
3.1	Household nutrition improvements		
3.1.1	Support Capacity Development of Township Administration on nutrition	PM 6-12	
3.1.2	Nutrition Behaviour Change Communication	PM 12-54	
3.1.3.	Package to improve means to realize nutrition recommendations	PM 12-54	
3.1.4	Impact assessments and information systems	PM 54-60	
3.2	Support to off-farm rural employment		
3.2.1	Conduct a survey on off-farm rural development opportunities	PM 3-6	
3.2.2	Provide specific training according to requirements	PM 6-36	
3.3	Monitoring and evaluation		
3.3.1	Develop the Monitoring and Evaluation (M&E) framework	PM 3-6	
3.3.2	Develop an appropriate Management Information System (MIS)	PM 3-6	
3.3.3	Establish adequate M&E resources at township and central level to implement the M&E MIS	PM 3-6	
3.3.4	Carry out capacity development on M&E	PM 3-36	
3.3.5	Establish and operate <i>collect mobile</i> tool	PM 3-36	

<sup>17</sup> See also the FPMIS User Guide “Work plan – managing a project work plan”.

## Targeting

Targeting will be done at geographical level and for individual households. It is suggested that at least 35 000 households (equivalent to 154,000 persons<sup>18</sup>), be targeted. It should be noted that the ADB-loan CFAVC project is designed to cover an area of 14 townships<sup>19</sup>. A map of these tentative 14 selected townships is included in attachment 1 to this appendix II. In the case of the GAFSP interventions, the geographic targeting will be done at township level and will aim at maximizing geographic coverage (saturation) based on the following criteria: (i) poverty incidence and depth; (ii) complementarity with other rural development interventions; (iii) geographic contiguous townships (to the extent possible); and (iv) potential for groundwater irrigation.

64. Individual household targeting for farm improvements, land administration services and nutrition improvements will take place at village level through a participatory process. Existing data<sup>20</sup> suggest that there are landless households that can benefit from project interventions. The LIFT baseline survey indicates that some 10 percent of landless households' access land through rental, sharecropping or land lending arrangements. An agricultural digital finance scheme including small-scale groundwater irrigation and access to financial services for procuring seed, agrochemicals and technical and mechanization services as well as seed capital for off-farm activities will be introduced for small rainfed producers with land and labour capability, and possibly, small leaseholders. Women, who are the primary caregivers and simultaneously have the highest nutritional requirements during ages of 15-49 years, will be the primary focus for nutrition support services, cognizant of socio-cultural relations and the importance of change agents. Where functional, village development committees will be used as entry points for support service delivery at village level. Activities in post-harvest, processing and exporting will not require targeting and will be conducted on a competitive basis.

## Description of activities

65. The proposed activities of GAFSP grant will be implemented by ADB (USD 22 million) and by FAO (USD 5 million). These activities are presented in the sections below and summarized in **Error! Reference source not found.** above. The description below relates only to the GAFSP funded activities including FAO technical assistance activities while **Error! Reference source not found.** above includes both GAFSP initiative and ADB-loan funded activities in an attempt to prepare the ground for merging interventions into one single proposal. With this purpose in mind, the GAFSP initiative interventions were designed along the CFAVC project structure with the objective of enhancing and complementing its three outcomes

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<sup>18</sup> Based on 2015 census data, the average household size in the DMZ divisions are Mandalay (4.4), Sagaing (4.6) and Magway (4.1). Based on the relative populations in these divisions, that would give you an average household number of 4.4.

<sup>19</sup> Pakokku, Magway, Aunglan, Natmauk, and Pwintbyu in Magway region; Mahlaing, Pyawbwe, Natogyi, Sintkaing in Mandalay region; and Monywa, Shwebo, Sagaing, Yin Mar Bin and Sarlangyi in Sagaing region.

<sup>20</sup> GRET study on the Central Dry Zone (*Land tenure in rural lowland Myanmar: From historic perspective to contemporary realities in the Dry Zone and the Delta, 2017*) estimates that (i) 48 percent of the household are landowners with the following farm size distribution

13%	< 3 acres
17%	3-6 acres
11%	6-9 acres
4%	9-12 acres
1%	12-15 acres
2%	> 15 acres

and (ii) 52 percent of households are landless and of those, 11 percent of total are casual labourers, 16 percent have small livestock as their main activity and 26 percent are engaged in off-farm activities.

mentioned above, namely: (i) Critical agribusiness value chain infrastructure improved and made climate resilient; (ii) Climate smart (*and nutrition sensitive*) agriculture promoted; and (iii) Enabling environment for agribusiness enhanced. In turn the specific FAO interventions are part of the GAFSP grant and are designed to support implementation across all main GAFSP funded activities. The FAO-implemented activities will only relate to Outcome 2 and 3.

## **Outcome 2: Climate smart and nutrition-sensitive agriculture and agribusiness promoted**

### **Outcome 2.1 Dissemination of good agricultural practices (GAP)**

*Note:* This outcome will be jointly implemented by FAO and ADB. FAO will deliver technical assistance and guidance. ADB will ensure inputs, equipment and material procurement and dissemination.

#### **GAP - Background**

66. Limited knowledge of farmers on improved crop production is considered as one of the constraints along the agricultural commodity value chains. Inadequate field and crop management leads to increased cost of production, low yield, and sometimes insufficient quality.

67. Public agricultural extension in Myanmar itself and specifically in the project area is severely constrained by a lack of financial resources for travel and operational budgets. Other constraints to effective delivery of extension services in Myanmar include: (i) the relatively low educational levels of extension staff; (ii) the low farm outreach (measured in number of rural population or hectare of farmland per extension agent) combined with inadequate mobility; (iii) the lack of up-to-date extension material; (iv) the low use of innovative approaches and technology; (v) the low involvement of private extension service providers; and (vi) weak farmer organizations (World Bank 2017).

68. On average, Myanmar's front-line extension worker, who is supposed to maintain direct contacts with farmers, is required to cover several village tracts with 1,215-2,430 hectares of cropland (Cho 2013). This is much higher than in other countries of the region such as Vietnam, Philippines, or Indonesia. Combined with the lack of mobility, this results in infrequent interaction between farmers and extension staff.

69. The weaknesses of the current agriculture extension approach and methodology has been described in various recent reports. (Cho 2013; International Fund for Agricultural Development [IFAD] 2013; HAGGBLADE 2014, AERES GROEP 2015). The findings point out that the current extension approach has little orientation towards the problems as perceived by farmers, does not facilitate more frequent field visits due to budgetary constraints, and is sub-optimal in fostering sharing of knowledge between farmers and extension agents, and between extension agents and researchers. Current extension focuses on transfer of technologies aiming at increasing yields rather than maximizing return on farmers' investments.

70. More modern agricultural extension systems such as FFS have been piloted with mixed results. Over the past 15 years, Myanmar Agriculture Service (MAS)/DOA had significant exposure to "modern" farming systems research and extension and to participatory extension approaches like Participatory Varietal Selection and FFS, but this exposure did not make a sustainable impact (AFC Consultants International, 2015). Although some of these approaches have been strong on farmer participation and learning and have earned the trust of farming communities, some of the results were mixed. Overall, FFSs in LIFT's Country Wide Programme (CWP) were found to effectively disseminate new rice production techniques, as

well as teaching best practices for growing other crops. Beneficiaries seemed to be well-aware of GAP and were disseminating the information through their personal networks. Good achievements were reported especially in villages where the Metta Development Foundation worked. There were, however, also a few constraints that limited the effectiveness of FFSs (LIFT 2013). Some of the constraints mentioned are: (i) unsuitable selection of farmers for demonstrations, (ii) failure of technologies demonstrated, (iii) technologies not being perceived as useful by the farmers, and (iv) no compensation for risk on demonstration plots. Other challenges facing the FFS approach are outreach in terms of villages or districts covered and the relatively high costs.

71. In this situation, the Project will support a mix of options for delivering technical knowledge. These would include: (i) private sector driven interventions (enterprise to farmer extension, e.g. in the context of contract farming or seed multiplication); (ii) building capacity at farm and rural community level through targeting lead farmers and encouraging farmer to farmer extension; (iii) selective application of the FFS approach (e.g. in Integrated Pest Management (IPM) and seed producer groups); and (iv) ICT based approaches such as help lines and mobile phone-based platforms.

### **GAP - Activities**

72. Identifying and disseminating good agricultural practices for major crops grown in the CDZ and demonstrating each step of GAP to farmers is paramount for good quality production. The DoA has already developed GAP for some crops, however, these seem not fully suited to varying local conditions and detailed guidelines will have to be developed to cover the following topics: (i) seed selection; (ii) soil and plant nutrition management; (iii) water management; (iv) IPM; (v) post-harvest management; and (vi) information on the nutritional use and importance of the commodity. GAP for nutritional local crops widely used in rural households will also be developed.

73. Examples of good agricultural practices suitable for the project area could include:

- use of Rhizobium inoculant in the pulse crop (could generate on average 36 percent yield increase - Rhizobium available in Myanmar);
- cost-effective crop protection (reduced N-use, trap crops, use of traditional knowledge, plant extracts);
- community-based seed production and storage (village seed banks for pulses and oilseeds, so far only promoted at large scale for rice, with variable outcomes);
- corrective measures for deficiency of Fe, Zn and S (widespread in CDZ);
- pigeon pea seed soaking for four hours (provides better germination and higher yield);
- control of termites in groundnut with tobacco leaf powder;
- borer control in chickpea by planting sunflower as a trap-crop;
- supplementary irrigation in groundnut in the post-rainy season;
- sesame grains to be processed to roasted powder for export.

74. The project will undertake a stocktaking of good agricultural practices suitable for the target districts. This must be done in collaboration with the Department of Agricultural Research (DAR) as well as with LUD, PPD, ED and SD and should build on the lessons learned from previous interventions in the CDZ such as the ones supported by the Australian Centre for International Agriculture Research (ACIAR). Identified best practices through this stocktaking should be discussed with farmers in the target area, especially with those who have already some experience in these practices through the previous projects. Based on this stocktaking

exercise, the development of new or updated GAP guidelines for the main crops will be supported. These guidelines will be available in graphic, easy to understand leaflets as well as in the form of short video clips which can be screened in farmer group meetings (see paragraph on ICT below).

75. Another stocktaking will be done in order to assess the availability of already trained and experienced lead farmers (also among the FFS Facilitators)<sup>21</sup>. This will include farmers in the target area and resource persons within DAR, DOA and NGOs who have been trained in the FFS approach within the context of previous project interventions such as the one supported by ACIAR on extension methodology, low-cost legume production and inoculant production.

76. In terms of specific activities, the ADB will fund the below activities with support from FAO on training of trainers, international and national TA and capacity development:

- ensure that in all activities listed below, DOA-ED is in a coordinating and facilitating role, and takes ownership of the whole process;
- identify if there is already a functioning mobile phone-based extension platform existing in Myanmar (e.g. DOA Call Centre, (Myanmar AWBA group application for smartphone; Golden Paddy, etc.) and if so, develop upgrading options or supply content;
- identify existing documentation of best practices or GAP for the targeted crops in the CDZ; this includes identifying nutritional information of the targeted crops;
- identify suitable resource institutions or experts to review and improve the GAP guidelines; ensure feedback sessions with farmers during the process;
- identify trained FFS Facilitators, either from DOA, or from NGOs, who could potentially be engaged as facilitators and trainers in modified FFS programmes (e.g. for seed producer groups);
- identify possible trainers on specific agronomic topics concerning: (i) GAP in pulses and oilseed production, harvest and storage; (ii) integrated nutrient and pest management, (iii) irrigation management and maintenance, etc.;
- in collaboration with target farmers identify possible lead farmers per target village or by village tracts;
- design and implement a certifiable training programme for the selected lead farmers with various modules such as: (i) on the role of lead farmers; (ii) responsibilities and their benefits; (iii) communication with fellow farmers in the village; (iv) technical modules depending on crop, livestock, or other agronomic practices; and (v) facilitation of screening of extension videos;
- hold discussions with DOA-ED and the Farmer Channel on adopting IT based extension and knowledge dissemination technologies to give an introduction to the approach being used for distributing GAP as well as nutritional information;
- organize an exposure visit for DOA-ED and Farmers Channel to neighbouring countries to observe the above-mentioned IT-based technologies in action, and learn about the advantage of combining agricultural extension messages with messages on improved nutrition;
- support the design and printing of other extension material to be distributed to farmers.

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<sup>21</sup> This point only refers to the aim of identifying those farmers who have already been trained in the approach, so that they can be used as lead farmers.

## **GAP - Implementation Arrangements**

77. **Pre-conditions for GAP are the availability of good seeds and seedlings, availability of appropriate fertilizers and agrochemicals, as well as access to testing facilities** (e.g. soil, water, seeds, etc.). These aspects of GAP have been dealt with in the previous chapters. This chapter will focus on the perspective of generation and dissemination of GAP, including use of ICT.

78. **Based on the current situation and past experience a pluralistic extension approach will be used.** It is envisaged that this approach integrates elements of the FFS approach (especially targeting IPM and seed producers), lead farmer and farmer to farmer extension approach, enterprise-to-farmer extension, increased use of ICT, and participatory on farm trials and demonstrations implemented by lead farmers.

79. **ICT supported dissemination of GAP can be done through various ways including:** (i) the existing DoA Call Centre or similar private sector applications; (ii) building capacities within Agriculture Extension Division (ED) to produce short up-to-date extension messages in collaboration with farmers for use in the field by extension agents; and (iii) mobile apps for crop management and plant pest identification as the ones developed by e.g. International Crops Research Institute-for the Semi-arid-Tropics (ICRISAT) and International Rice Research Institute (IRRI).

80. **Township-level mediators, trained on IT-based knowledge dissemination systems produce and share videos on locally relevant agronomic, health and livelihood practices to motivate and educate community members.** The equipment used for video production and dissemination is of low cost, durable and easy to use, and adaptive to diverse environments. A community video production team of four individuals in each Township can create videos, averaging eight-ten minutes in length that are screened for small community groups twice a week using battery-operated pico-projectors. A facilitator from the community mediates a discussion around the video screenings by pausing, rewinding, asking questions, and responding to feedback. Regular adoption verification visits are scheduled for gauging the impact of the dissemination on actual practices.

81. **Based on the above the project will mainly work with willing lead farmers selected in a participatory way by the community.** These Lead Farmers (LF), who may also serve as FFS Facilitators, will be trained according to their need and interest by experts from DAR, DOA, but also by private sector experts (e.g. from the seed industry, fertilizer experts, etc.). The LFs will host demonstration plots to compare improved with current farmer practices and will regularly hold meetings with interested fellow farmers in the neighbourhood to discuss the agronomic practices and exchange information. These season-long trials will cover specific topics such as seed production (for those who want to become seed growers) or improved pulses production, oil seed production, etc. LFs should be compensated in cash or in kind for the risk they are taking on these demonstrations and their time commitment for passing on the information. The same lead farmers may also become the actors in the short extension videos. The ED will be the overall guiding and organizing entity for this approach.

## **GAP - Risks**

82. Main risks include:

a) Insufficient number of DOA-ED extension staff to coordinate and follow-up on GAP field activities, exacerbated by lack of mobility.

Mitigation: (i) Make extensive use of lead farmers and farmer to farmer extension; (ii) DOA-ED commitment to provide sufficient human resources at township and village tract level;

and (iii) CVAFC to collaborate with DOA to provide sufficient support in mobility to DOA-ED in the target area.

- b) Promoted GAP are too complex, costly, and impractical for smallholders to follow and hence adoption of GAP is lacking.

Mitigation: (i) participatory development of practical GAP for resource constrained smallholders; and (ii) identify and promote only a few key agronomic improvements with promising “quick-wins” before moving to more complex ones in a second round.

- c) Lead farmers not ready to share information or allocate sufficient time and energy to regularly convene farmer meetings at demonstration plots.

Mitigation: (i) design an attractive package for lead farmers to compensate for their risks and efforts; (ii) involve them as actors in extension videos; (iii) DOA-ED to give regular back-up and support; and (iv) involve as much as possible the private sector to participate in demonstrations and training provision to increase interest and trust of farmers.

### **Outcome 3: Enabling environment for agribusiness enhanced**

#### **Outcome 3.1 Nutrition improvements**

##### **Nutrition - Background**

83. Institutional environment. The Government of Myanmar is committed to eradicating hunger and all forms of malnutrition through Sustainable Development Goal Number 2 (SDG2) titled ‘End hunger, achieve food security and improved nutrition and promote sustainable agriculture’, and as evidence by its participation in the International Conference on Nutrition 2 (ICN2), and the establishment of a nutrition unit under the Development Assistance Coordination Unit (DACU). The first objective of the Agriculture Development Strategy (ADS) is to improve Food Security and Nutrition (FSN) and this can only be achieved through close collaboration with partner ministries. The ADS addresses food security and nutrition through productivity and enhancement measures under the Pillar 2 on Productivity and food quality and safety under Pillar 3 on Market Linkage and Competitiveness. As Myanmar embarks on drafting its Costed Multi-Sectoral Nutrition Action Plan (MS-NPAN), the GAFSP comes at an opportune time to realize these commitments to reduce stunting to 21 percent by 2025. It is expected that the Department of Social Welfare (DSW) will convene a Social and Behaviour Change Communication (SBCC) Task Force including departments from Ministry of Health and Sports (MOHS), UN agencies, Development Partners and Civil Society as technical members of the Task Force as part of the LIFT-funded “Technical Assistance to the Ministry of Social Welfare, Relief, and Resettlement’s Chin State Maternal and Child Cash Transfer Programme (TEAM MCCT)”. This programme aims to scale-up efforts already rolled-out in the CDZ - coupling SBCC with MCCT. The GAFSP offers an opportunity to follow a similar theory of change facilitated through agriculture and livelihoods improvements. Even though the plans and strategies of the Ministries of Health, Agriculture and Education have explicit objectives to improve nutrition, there is very little understanding at township level as to how to implement these objectives. Capacity development is needed to understand nutrition challenges, identify roles and responsibilities, how nutrition can be reflected in township and village planning, and how information can be collected to feed into better decision-making. Furthermore, without the green-light given to field staff, it is unlikely that extension agents and health assistants will offer any support to households on nutrition.



84. Key figures and dietary diversity. Despite reasonable economic growth and agriculture productivity, malnutrition remains a considerable concern in the CDZ of Myanmar. Stunting (height for age) and wasting rates (weight for height) among children under the age of 5 each range between 20-30 percent in the CDZ, with the highest incidence in dryland farming zones compared with flood plain and irrigated areas. Over 50 percent of women age 15-49 years old are anaemic in this region. Diets remain heavily dependent on carbohydrates, which are affordable, palatable and available. Nationally, Myanmar people derive 65.5 percent of their daily caloric requirements from rice and cereals and 11.3 percent from oils and fats, a phenomenon which seems very likely to be even further exacerbated in the CDZ. Lack of dietary diversity, a proxy for diet quality, can result in long term impaired cognitive and physical development. The following sections outline the key drivers likely contributing to these sustained rates of malnutrition, following the widely-used United Nations International Children's Emergency Fund (UNICEF) causal framework.

85. 1 000 Day Window of Opportunity. The immediate drivers of malnutrition (generally captured by three themes: health, care practices and diets) in the Central Dry Zone are multiple and complex, but largely appear to be founded in inadequate Infant and Young Child Feeding (IYCF) and dietary diversity of women of reproductive age, particularly during the 1 000 day window of opportunity. It is common for parents to feed children under six months boiled rice and water while breastfeeding. Denying a child rice at this early stage is culturally considered mistreatment. Other foods are later added as the child desires, frequently limiting the child's diet to rice, oil, spices and occasionally pulses, leaving out meat, vegetables, and fruits. LEARN (Leveraging Essential Nutrition Actions to Reduce Malnutrition)-commissioned studies found that only 5 percent of infants 6-11 months consume four or more food groups and dietary taboos during pregnancy restrict adequate nutrient-intake. Inappropriate IYCF practices and inadequate nutrient intake can result in stunting.

86. Agriculture productivity. In the original project proposal, agriculture productivity and insufficient incomes were identified as principle bottlenecks for adequate household dietary diversity. Households, however, largely rely on markets to provide them their daily food basket, complementing this only with minute amounts of home-grown vegetables, fruits, legumes and small animal products (whereby many locally-available food resources are underutilized, especially pulses). Livestock raising is an important livelihood in the CDZ, however, in Buddhist tradition, taking the life of an animal is considered sinful, whereas meat consumption is acceptable (except for cattle that are considered work animals). Therefore, meat is almost exclusively sold to and purchased at the market. Even self-raised eggs are seldom consumed as they are kept for hatching. Instead, they are often purchased at the market. Milk however is sometimes consumed if household owns cows. Increasing the consumption of animal based foods will likely depend on income generation and market infrastructures, including food safety of animal-based products. While productivity enhancements are required, income is an important driver complemented by nutrition education.

87. Income. All households in the CDZ rely on markets for some part of their food basket, and many to a large extent. However, with wages exceedingly low compared with neighbouring countries, disposable income is insufficient for most households in the CDZ to secure a balanced food basket. Cost of a minimum balanced diet of 2 100 Kcal is about USD 164 per year; a five-person household consuming a balanced daily diet of 2 100 Kcal costs MMK 1,07 million or USD 820 per year<sup>22</sup>. Income from agricultural labour equals USD 194 per year thereby requiring four working units per household to meet annual minimum balanced

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<sup>22</sup> Thandar Win Maung and Cho Cho San (2015). Study of Food Security Status and Coping Strategies of Rural Households in Myingyan Township, Dry Zone area. Research Document 04-YAU-ASEM-2011-043. Australian Centre for International Agricultural Research.

diet requirements<sup>23</sup>. The relative cost of a balanced diet therefore in Myanmar requires increased earnings combined with a number of other interventions including diversification of food production and nutrition education. The project, as a whole, will support income generation for farmers, complemented by more specific activities designed to leverage these effects for nutrition.

88. Nutrition awareness. Knowledge of nutrition is lacking across villages and socio-economic groups. Households located in villages with access to more natural resources tend to also consume meat more regularly, but overall, the food basket is largely shaped by habits, taboos, misinformation and preferences, which often do not secure a healthy diet. To ensure that agriculture productivity and income contribute to an improvement in nutrition, education based on a thorough understanding of people's dietary and care practices is crucial.

### **Nutrition – activities**

89. In terms of specific activities, FAO will implement the following.

90. Strategic partnerships. Nutrition has risen to the top of the development agenda in Myanmar and therefore requires intensive multi-sectoral coordination and engagement to avoid duplication and ensure the scaling-up of effective interventions, leveraging impact through complementary activities where possible. All activities will build on lessons derived from previous interventions and focus on strengthening strategic partnerships. Convening platforms such as the Scaling-Up Nutrition Network (SUN) and its respective UN, donor, business, and Civil Society network will be engaged to the extent possible through initial consultations and throughout implementation. In line with the forthcoming Multi-Sector Nutrition Action Plan (MS-NPAN), the project will support the project team and the National Nutrition Centre and MOALI's department of planning to strengthen agriculture-nutrition linkages.

91. Support Capacity Development of Township Administration on nutrition. The project will support national and township level administrative bodies to contribute to decentralized multi-sectoral nutrition planning. The focus will be to engage directly with relevant township Departments from MOALI, MOE, MOHS and Ministry of Social Welfare, Relief and Resettlement (MSWRR) to identify local nutrition issues and underlying causes, respective roles and responsibilities, and ensure usability of a steady flow of data collected through real time geo-tagging. This will take place through a two-step process. Building on methodologies for multi-sectoral dialogue adapted through MOHS' Integrated Plan for Nutrition Improvement (IPNI) and the FAO-European Union Facility on Food and Nutrition Security Impact, Resilience, Sustainability and Transformation (FIRST), the first step will be to undertake a rapid capacity needs assessment followed by the facilitation of a series of planning-oriented seminars. These seminars will help to ensure ownership of nutrition as innately linked with their respective work and encourage officials to support their outreach staff to deliver nutrition messages. Secondly, the aim will be to identify relevant opportunities in e.g. Village Development Plans for investments to enhance nutrition as the township will help oversee the disbursement of a small fund. Ultimately, the objective is to institutionalize nutrition into township-level planning and project implementation. It is important that township administrations encourage extension/outreach staff to support nutrition-promoting practices at village and household level on a demand-driven basis (i.e. livestock extension for backyard poultry and agriculture extension for kitchen gardens). Without this 'green light', the intervention cannot be sustainable.

92. Nutrition Behaviour Change Communication. With the support of an implementing agency, the project will follow a Social and Behaviour Change Communication (SBCC) theory

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<sup>23</sup> Based on calculations derived from LIFT/World Bank data report Myanmar: Analysis of Farm Production Economics (2016)

of change to encourage nutrition-promoting practices in project villages with the ultimate aim of preventing stunting by instilling life-long healthy habits. Issues emphasized may include timely and appropriate composition of infant and young child feeding, encouraging demand/outreach for health services, improving dietary diversity, identifying readily-available and seasonal underutilized/neglected resources (including leafy vegetables, pulses, fruits, and animal-based foods such as eggs and milk), and improving cooking practices to reduce use of oil and leakage of micronutrients in vegetables during cooking. The project will align to the extent possible, with the MCCT programme and build on lessons learned from previous SBCC projects and a series of formative studies, a number of which have been already carried out (by Leveraging Essential Nutrition Actions to Reduce Malnutrition - LEARN - for example) and others which will be conducted within the scope of the project. Agriculture extension, health assistants, midwives, auxiliary midwives, teachers and representatives from women's groups should be included in trainings to ensure sustainability and convergence. The project will support:

#### A. SBCC Strategy

- SBCC consultation in Nay Pyi Taw, in partnership with the SBCC Task Force, to take stock of SBCC materials and modalities that have worked/not worked in the CDZ and identify possible partners and local champions, synergies with ongoing programmes, and gaps;
- Carry out study to identify edible resources available and acceptable at household level by agro-ecological zone to improve food security and nutrition. Findings will then be shared in a forum with partners (many of whom will likely also be members of the SBCC Task Force). These findings will also inform the content of GAP Training of Trainers (ToT) trainings and other farmer capacity development including through ICT;
- Trials for Improved Practices (TIPs) or pilots to inform implementation, linking agriculture and livelihood support with SBCC (on issues related to e.g. maternal dietary diversity and IYCF including identification of 'change agents', access to and increase demand for health services in the community, and Water, Sanitation and Hygiene (WASH). This activity should help to shape implementation modalities;
- Development of a series of audio-visual materials and learning modules in-line with the LIFT-SBCC package and messages developed by MOH. This may also include distribution of the complementary food plate developed by UNICEF, development of videos, recipes, and/or development of a food plate, encouraging a discussion on the Food Based Dietary Guidelines for Myanmar, as relevant to the CDZ. One module will be developed as part of the GAP training package;

#### B. Village-level SBCC

- The Implementing Partner (IP) will support the roll-out of the SBCC strategy in 180 villages and concurrently support capacity development of public outreach including health assistants, teachers, women's groups, and agriculture extension. By engaging each village ca. one time per month in cooking demonstrations, discussions following a short film screening, drawing, games, and other activities, the IP will aim to encourage adequate care practices, dietary diversity and Water, Sanitation and Hygiene (WASH). The primary target beneficiary will be women of child bearing age and community 'change agents'. Public extension will be invited to monthly trainings where new packages of material and facilitation techniques will be provided to field facilitators and also during village-level demonstrations. The IP will backstop public extension to carry out these demonstrations in Year 3.
- Package to improve means to realize nutrition recommendations. As the supply of diverse food baskets appears to differ based on a number of issues across villages (including access

to water, land, knowledge), a village-centric approach will be adopted to ensure that investments are relevant and included in Village Development Plans where possible. SBCC will complement a package of livelihood interventions to support households to realize recommendations provided for improved nutrition practices. IP staff will support township administrations to utilize information gathered through SBCC community engagement to identify relevant investments, which may include tree hedges, kitchen gardens, small livestock, small processing activities, or improving local market infrastructure and food safety as linked with other project activities.

- Impact assessments and information systems. In the absence of rigorous nutrition data for the CDZ and in the context of a country where multiple approaches for reducing and preventing malnutrition are being piloted and scaled-up, it is important to monitor and track progress of GAFSP-funded nutrition interventions. Monitoring of nutrition interventions will be aligned with the M&E of the whole programme. Monitoring will guide decision-makers in assessing which approaches and packages are most effective for instilling long-term healthy behaviours and impacting nutrition figures in the short time. A detailed nutrition baseline will be administered containing sections on food consumption, anthropometry, livelihood assets and knowledge<sup>24</sup>. Process information will be collected via tablets in the field, on the basis of a system set up with the support of TA to tag geographical location where possible (to track patterns by agro-ecological zone) and use real time to feed into the development of SBCC materials. Outcomes will then be monitored as part of a rigorous mid-term and end line evaluation. Nutrition-sensitive agriculture at scale is a new area for Myanmar and given the increasing number of SBCC initiatives across the country, it is important to assess the impact of this approach and feed into larger planning processes.

### **Nutrition - Implementation arrangements**

93. Strategic partnerships. The project will support a national nutritionist (building on past and ongoing work and coordinating with the FIRST policy officer) to work with the project team, implementing partner and the National Nutrition Centre and MOALI's DOP to strengthen agriculture-nutrition linkages.

94. Support Township Capacity Development on nutrition. Based on a capacity needs assessment, trainings will be carried out through TA for Township GAD, MOALI, MOH, MOE, and MSWRR to identify local nutrition-related needs and respective roles and responsibilities, ensure that staff is equipped to provide technical backstopping support as demanded for nutrition-enhancing activities (i.e. backyard poultry, kitchen gardening, etc.) and ensure feedback loop of M&E system. Training will take place two times in the first year and once per year in each consecutive year. Materials currently being developed by FAO can be adapted to fit these needs.

95. Nutrition Social Behaviour Change Communication. Nutrition SBCC will be supported by the project in partnership with members of the SBCC Task Force and implemented by a partner to be identified. Following three years of village and township-level engagement, nutrition services will be mainly carried out by public outreach/extension staff with backstopping support from FAO, as required.

96. Through the FAO TA, the project will support the development of the SBCC strategy, backstop implementation and support the handover/sustainability of the project. FAO will facilitate an SBCC consultation in Nay Pyi Taw, linked, if possible, with a meeting of the SBCC Task Force (including MOHS and particularly the Health Literacy Promotion Unit (HLPU) and

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<sup>24</sup> This activity will be implemented in close collaboration with IPA carrying out the impact assessment.

NNC, UNICEF, World Food Programme (WFP), World Health Organization (WHO), LEARN consortium, etc.) to take stock of SBCC materials and modalities that have worked/not worked in the CDZ and identify possible partners, synergies with ongoing programmes, and gaps. FAO will further support a study on available and underutilized crops and organize a forum to share lessons in order to develop appropriate messages.

97. The project will identify an Implementing Partner (IP) to carry out activities for the duration of three years with experience in the CDZ and a network of community facilitators to carry out nutrition SBCC and training of extension staff. The partner will likely have the following organizational structure and work on a model of intensive community engagement for two years, with one year for handover:

- a) One coordinator and a small team of staff.
- b) One staff in each of the six townships, working closely with GAD and departments from all relevant ministries. These persons will be responsible to conduct near-monthly trainings with outreach officers (public and project-based) from their respective townships to train on the facilitation of the subsequent nutrition theme and package of materials/issues (e.g. cooking demonstrations, discussion following a short film screening). These will be linked with GAP trainings when possible to ensure agriculture-livelihood—nutrition linkages in addressing underlying causes of malnutrition. Township staff will also be key in assessing the data collected at village level to shape later SBCC sessions and the utilization of the funds available at township level to address underlying causes of malnutrition (e.g. home garden, hand washing station, market infrastructure, fruit trees to also reduce soil erosion, etc.).
- c) One village facilitator for every two treks (thereby approximately one per every ten villages, a total of three per township, totalling 18 village facilitators). They will be responsible for carrying out monthly demonstrations/discussions in each responsible village with ‘change agents’ as identified by LEARN formative research (husbands, mothers-in-law and grandmothers) and with adolescent and young women (age range ca. 20-35). This will total approximately 15-20 percent of households in project villages. Community facilitators will also be responsible for collecting information after each demonstration using a simple survey developed with the support of TA made available on tablets to facilitate geo-tagging and use of real-time data.
- d) Community mobilizers (not salaried, small stipend/incentive), who will ideally also be a change agent

98. The IP will support the roll-out of the SBCC strategy in 180 villages and concurrently support capacity development of public outreach including health assistants, women’s groups, and agriculture extension. The theory of change is underlined by a strategy of close engagement of the IP with public outreach officers for two years, followed by backstopping for omne year;

99. Nearly each month, a new package of materials and information will be delivered to the field facilitators by the IP coordinator and township staff based on needs and effective modalities identified. Progress in each township will then be presented at a yearly meeting first by IP staff with the participation of government outreach staff and then by government outreach staff, with backstopping support from the IP and FAO, as required.

100. Package to improve means to realize nutrition recommendations. Villages and households will be able to select from a package of interventions to support the realization of nutrition recommendations including for example kitchen gardens, small livestock, or small processing activities, market infrastructure and food safety, as linked with other project activities. A lump sum will be allocated for each village and activities should be defined clearly

in Village Development Plans and capacity development will be provided through TA to facilitate this process.

101. Impact assessments and information systems. Through a convergence of nutrition BCC and improved livelihoods, the project is expected to have an impact on reduced malnutrition, particularly in the flood plains as livelihoods in the dry land may take longer to get started. A balanced food basket is costly in the CDZ and, therefore, exchange items need to be identified and promoted through the development of an 'ideal balanced food plate graphic'. The project M&E system will include an anthropometric survey to assess changes in stunting and wasting from Year 1 to Year 5 of the project. The survey should include capacity development of health assistants (but stunting will not be a project impact indicator).

102. The real-time data collection system built into the whole project will extend to all nutrition outreach officers. Information gathered should inform the development of all BCC materials and the allocation of village-funding for nutrition-promoting activities.

### **Nutrition - Risks**

- a) Overlap with other development agencies. All activities will build on lessons derived from previous interventions and focus on strengthening strategic partnerships to avoid duplication and incoherence as well as to ensure synergy and complementarity of support to leverage impact. Convening platforms such as the Scaling-Up Nutrition Network (SUN) and its respective UN, donor, business, and Civil Society network will be engaged to the extent possible through initial consultations and throughout implementation.
- b) Institutional fabric to carry out nutrition behaviour change communication. With support from FAO, an implementing partner will engage staff to work in close collaboration with village-level outreach officers from MOE, MOHS, and MOALI to ensure that a common understanding of roles and responsibilities is established among community workers and capacities are strengthened to contribute effectively to the improvement of the nutrition at household and individual level.
- c) Resistance to changing dietary practices due to cultural constraints. A methodology following behaviour change communication theory will inform all nutrition education activities to ensure that recommendations, messages and approaches for community engagement are anchored in a deep understanding of local norms, values and preferences.

## **Outcome 3.2 Support to off-farm rural employment**

### **Off farm - Background**

103. In project area rural villages, there are significant proportions (15 percent to 40 percent) of village households with no land secured by land certificates. In most cases these households do not have access to any common land for grazing. The more entrepreneurial families have started up service businesses including trades or transport while many household members provide manual labour during busy times in the crop production seasons, particularly at harvest time, and at land preparation time and planting. The lack of employment opportunities outside these busy periods has led to some household members (30 percent - 80 percent of households met during the visit reported to have a household member working outside) moving to other parts of Myanmar or to neighbouring countries.

104. This out-migration has led to the situation where manual labour resources are constrained during the busy time leading to mechanization becoming more attractive to land owners. In addition, mechanized cultivation allows quicker land preparation and sowing after

the initial wet season rains and in the relatively dry mid-season period in late June July when double cropping farmers need to harvest one crop and quickly prepare the land and plant the second crop.

### **Off farm – Activities**

105. Off-farm activities will aim at providing both the opportunities to acquire the skills to start a private business as well as being employed. FAO will conduct a survey on off-farm rural development opportunities in the CDZ. Subsequently, interested groups of target households will receive training to assess their own capacity and needs to develop micro-business skills and identify possible employment opportunities within their location and skill set. This training will aim at developing life skills (basic numeracy, literacy and financial literacy) which provides the opportunity to self-assess the household's capacity. Those households who identify enterprises that suit their skill sets and interests would then be provided with targeted training in technical skills and the basic business and marketing skills needed to successfully start a micro business<sup>25</sup>. NGOs with experience in these areas<sup>26</sup> would be contracted to deliver these services. For sustainability, the project would assess the potential of the Ministry of Industry (MOI), SME Development Centre<sup>27</sup> as well as the Technical and Vocational Education and Training (TVET) centres under the MOE as long-term partner which could be assisted to develop its capacity and ability to support ongoing income generating activities. Preference would be given to developing micro-enterprises that can support the intensification of grain production under the other project activities.

106. The ADFS will also be available to up to 3 000 participating land-less households to provide seed-capital for their initial micro-enterprise to support the training and mentoring they will receive through the project.

### **Off farm - Implementation arrangements**

107. This activity will be implemented through both the Rural Development Department (DRD) for non-agriculture activities and the Livestock Breeding and Veterinary Department (LBDV) for livestock activities. The identified group of interested households (female and male representatives) will be taken through a structured training programme starting with basic life skills development followed by technical vocational and business development training. The delivery of these training will be planned and implemented by the livestock department for livestock activities and by the rural development department for non-agriculture activities<sup>28</sup>, in the latter case through competent public and private service providers. Participants who successfully complete the structured training programme would then be mentored by contract service providers<sup>29</sup> to implement their micro-enterprise. After 12 months, the successful new businesses would be invited to a group activity to assess the progress they have made and identify further technical or business management skill areas where the project could provide

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<sup>25</sup> The ADB-funded ERLIP project deals with providing adequate support to communities by: (i) building sustainable productive capacity among the poor; (ii) improving their connections to markets; (iii) strengthening links to technical assistance and government services, and (iv) enhancing their access to information (on markets, production, technologies, etc.) to enable them to make more informed decisions. The results of the design process suggests that the most demanded income generating activities are livestock-based and include small ruminants, chicken, pigs and to some extent cattle raising.

<sup>26</sup> For example: Golden Plain Livelihood Development Services Coop Ltd, GRET, Action-AID.

<sup>27</sup> The SME Development Centre, established less than three years ago in Yangon, is designed to serve micro, small, and medium-size enterprises in Myanmar. Still in its infancy, the Centre has limited capacity to provide services but aims to become a meaningful resource, currently implementing programmes typically supported by international development partners. It plans to offer training and capacity-building for small businesses on topics such as consumer protection, financial management, intellectual property, and technology-related opportunities.

<sup>28</sup> Possible examples include hairdressing, beauty treatment, house wiring, motorcycle repair, tractor driver.

<sup>29</sup> In the short-term these will be regionally based experienced NGOs but the Ministry of Industry SME Unit will be encouraged to develop its capacity to support these activities.

support. Linking these new micro-enterprises to appropriate sources of credit could be a valuable activity for some of these businesses.

### **Off farm - Risks**

108. The main risks in this area include:

a) Creating unreal expectations of non-landowning participants.

Mitigation: (i) Put in place sensitization and screening processes that do not create unreal expectations of the levels of project support for the households which wish to have a livestock or micro-enterprise; and, (ii) the life skills activities should provide value to households which are not able to successfully develop their preferred enterprise.

b) Identifying new micro-enterprise activities

Mitigation: (i) use study/experience sharing visits to other villages to show possible enterprises that could be adopted; (ii) work with existing successful landholders in villages to identify opportunities where services (equipment hire, contract labour supply, specialized value adding) can be provided to the existing farmers in production and post-harvest activities; and (iii) monitor implementation of the new micro-enterprise activities to ensure that the potential markets for services or goods are not over-supplied.

### **Output 3.3 Support to M&E**

#### **M&E - Present situation**

109. Current Government of the Republic of the Union of Myanmar reporting systems focus on financial reporting rather than collecting and evaluation (M&E) information that can be used to inform the project management team and Government of the Republic of the Union of Myanmar, ADB and GAFSP on project implementation and processes. Multisector projects are often donor funded and have unique M&E systems put in place for the project supported by international consultants or local NGOs implementing the activities. Internet connections can be limited in the target CDZ townships and the Planning and Budget sections of the Township Agriculture Offices are often understaffed and have limited computer and data handling skills.

110. Currently the government agencies at township manually collate the financial information on activities monthly and report the aggregated data to their district level office also to the town Department of Planning and Budget (DPB).

111. Since November 2017, the EU-funded *My-Governance* project has been supporting the Department of Rural Development (DRD) to create a Sector Results Framework (SRF) for the monitoring and evaluation of all DRD programming. The SRF has been formally endorsed by the DRD in July, 2017. In September 2017 the M&E Unit within the DRD, which the TA helped to form and capacitate, was elevated into a full M&E Division within the DRD. The original M&E unit which consisted of five staff members will be expanded to 28 staff positions at the DRD headquarters and two M&E staff officers will be appointed in every DRD township office bringing the full M&E staffing within the DRD to just under 600 persons. Building on what has been achieved with M&E at the DRD level, the second phase of EU-funded M&E technical assistance will scale up M&E good practices and capacity to the whole of MOALI with a view to effectively measuring the progress of implementation of the ADS. It will do so by (i) designing a results-based M&E system and frameworks; (ii) developing capacity for the M&E system; and (iii) operationalizing the M&E system.



## M&E - Activities

112. The M&E activities of the GAFSP initiative will be complementary to those of the M&E technical support provided under the EU-funded “*My-Governance*” project described above. The GAFSP-funded M&E activities will include (i) integrating the GAFSP M&E system into the M&E system being established in MOALI; (ii) establishment of data collection capacity in the 14 townships of the project area (one specialist per township with motorcycle and tablet); (iii) establishment of M&E capacity at central level in MOALI for coordination, implementation and data analysis; (iv) providing capacity development on M&E of decentralized staff and project beneficiaries; (v) developing an appropriate management information system to collect, collate and manage the M&E information required by the stakeholders; and (vi) implementing a series of workshops and conferences to share project experience and learnings which can be used by implementing agencies in other parts of Myanmar and provide a forum for improving project and technical implementation. A specific capacity of monitoring and impact assessment of the nutrition interventions will be set up (see section on nutrition above) and will be harmonized with the general M&E system of GAFSP and MOALI.

113. In addition, FAO GAFSP M&E will use “Collect Mobile” which is a fast, intuitive and flexible Free and Open Source Software (FOSS) for data collection in field-based surveys, developed in FAO-Forestry. This Android app allows the collection and processing of complex data structures and it can be adapted to numerous different contexts and topics. Its many features include:

- On-the-fly validation to improve data quality.
- Handling of large lists of suppliers or other attributes.
- Geo-location through embedded GPS.
- Inputs elaboration and attributes calculation for quality control in the field.
- Integration with Saiku, another FOSS for data management, analysis and export.
- Integration with Collect, another FAO FOSS for data management, analysis and export.

114. By using Collect Mobile, project and MOALI staff can geo-locate project beneficiaries using phones or tablets with embedded GPS, collect and analyse data on project activities using field-based surveys and optimize value chain development, nutrition, land administration activities. The tool enables fast, intuitive and flexible data collection with on-the-fly diagnosis of what is preventing farmers from producing more and better-quality products. It can handle large lists of project beneficiaries. Data can easily be exported in common formats and the immediate compatibility with Google geospatial tools allows for powerful data visualization and easy sharing. In terms of value chain development, Collect Mobile can promote direct interaction between firms and their suppliers and enables the firms to better target their support – from advice on improved product quality to farm management. In addition to farm activities under the value chain development, Collect Mobile can be easily applied to mapping and monitoring of the agricultural extension, digital finance, land administration, nutrition and off-farm interventions.

115. The FAO will implement the following activities on collect mobile: (i) training of 2 master trainers who will become the tool administrators; (ii) training of about 10 enumerators who will carry out field survey; and (iii) refresher course during project implementation. Some minor equipment could be purchased as part of this activity.

### **M&E - Implementation arrangements**

116. The main M&E resources will be located in the same unit as the EU-funded M&E TA. They will include one international general M&E expert who will provide guidance and overall support on a part time basis; one full time national M&E expert who will coordinate and implement GAFSP M&E activities on a daily basis and one data analyst who will perform data analysis and train MOALI staff in this field.

117. The MIS will be located in the department/organization within MOALI responsible for implementing government information technology services. The GAFSP M&E unit would then not have to have strong IT technical skills as these would be provided by the specialized IT Section. This would also make the MIS more sustainable as the operating costs should be largely covered by recurrent funding and the system would be compatible with the overall Government of the Republic of the Union of Myanmar monitoring requirements.

118. As mentioned above, the dissemination and use of collect mobile tool will require specific capacity development by FAO experts.

### **M&E - Risks**

119. The main risks to M&E activities include:

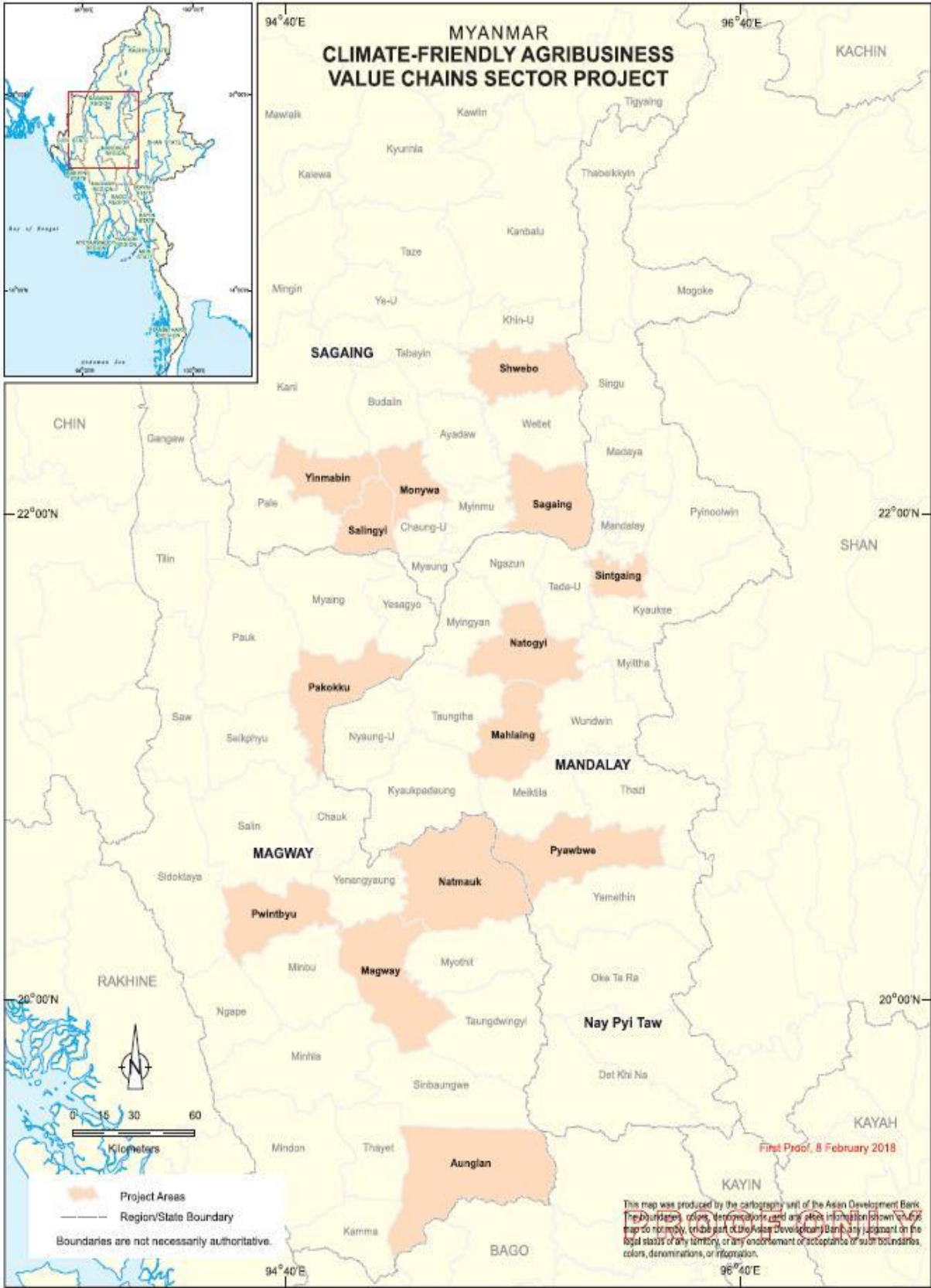
- a) M&E activities on large scale projects can become a standalone activity rather than being an integral part of the project management and planning processes.

Mitigation: (i) development of the results frameworks will focus on addressing the needs of Government of the Republic of the Union of Myanmar and the project funding stakeholders; (ii) the M&E activities will be located in the MOALI DOP, which is being strengthened by the Ministry to take a leading role in Ministry M&E activities. The staff allocations are at appropriate administrative levels to provide the high-level support needed; (iii) the GAFSP M&E activities will be integrated into the overall GAFSP/CFAVC M&E system so a consistent approach and data collection processes across all project M&E activities; and (iv) the MIS function will be located in the government agency with ongoing responsibility for providing MIS support to the MOA so will have ongoing budget support.

- b) A major challenge will be having processes at township level which cost-effectively collect information on all project participants with relevant socio-economic data which can be linked to their participation in project activities and specific inputs received from the project.

Mitigation: (i) user-friendly Tablet based software will greatly improve the quality and timeliness of activity and process monitoring data; (ii) the focus of data collection will be at the village tract level (i.e. Group of villages) which is the lowest level at which there is a paid government official who can be delegated with ensuring the required information is collected; (iii) where service providers are used, their service contract will require them to collect and enter the required detailed information into the project MIS so it is accessible to the GAFSP/CFAVC M&E unit.

**Attachment 1 to Appendix III: tentative map of the project area**



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#### Appendix IV: Budget

The budget is presented below according to FAO FPMIS guidelines. Detailed cost tables are presented below according to main activity as well as expenditure categories.

Parent Account	Parent Account Description	Account	Account description	Org	1	2	3	4	5	6	Total Original Budget
5013	Consultants	5542	Consultants - Internationally-recruited	FAMYA	320 000	360 000	300 000	60 000	40 000	17 000	1 097 000
5013	Consultants	5543	Consultants - Locally-recruited	FAMYA	160 000	450 000	440 000	260 000	134 000	45 000	1 489 000
5014	Contracts	5650	Contracts Budget	FAMYA	116 700	126 700	126 700	126 700	126 700	86 500	710 000
5021	Travel	5900	Travel - Duty Budget	FAMYA	100 000	120 000	100 000	86 000	60 000	50 000	516 000
5024	Expendable Procurement	6000	Expendable Procurement Budget	FAMYA	168 000	78 000	78 000	63 000	48 000	30 000	465 000
5025	Non Expendable Procurement	6100	Non Expendable Procurement Budget	FAMYA	30 000	82 000	17 000	17 000	17 000	70 000	233 000
5027	Technical Support Services	6111	Report Costs	FAMYA	0	0	0	0	0	6 550	6 550
5027	Technical Support Services	6116	Project Evaluation Costs	FAMYA	0	0	0	0	0	60 000	60 000
5027	Technical Support Services	6150	Technical Support Services Budget	FAMYA	14 000	10 000	10 000	10 000	10 000	0	54 000
5028	General Operating Expenses	6300	General Operating Expenses Budget	FAMYA	7 000	7 000	7 000	7 000	7 000	7 347	42 347
5029	Support Costs	6130	Support Costs Budget	FAMYA	64 099	86 359	75 509	44 079	30 989	26 068	327 103
Grand Total					979 799	1 320 059	1 154 209	673 779	473 689	398 465	5 000 000

**Summary table: total cost by components('000 USD)**

	(Kyat Million)			(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>A. Critical agribusiness value chain infrastructure improved and made climate resistant</b>								
Water management	-	-	-	-	-	-	-	-
<b>Subtotal</b>	-	-	-	-	-	-	-	-
<b>B. Climate smart agriculture and agribusiness promoted</b>								
Good Agriculture Practice	645,0	1.560,3	2.205,2	474	1.147	1.622	71	33
Farm mechanization	-	-	-	-	-	-	-	-
Digital finance access	-	-	-	-	-	-	-	-
<b>Subtotal</b>	645,0	1.560,3	2.205,2	474	1.147	1.622	71	33
<b>C. Enabling environment for agribusiness enhanced</b>								
Land management	-	-	-	-	-	-	-	-
Household nutrition	1.015,1	766,2	1.781,3	746	563	1.310	43	27
Off-farm rural employment	859,9	309,2	1.169,1	632	227	860	26	17
CFAVC Monitoring and evaluation	919,6	618,8	1.538,4	676	455	1.131	40	23
<b>Subtotal</b>	2.794,6	1.694,2	4.488,8	2.055	1.246	3.301	38	67
<b>Total BASELINE COSTS</b>	3.439,6	3.254,4	6.694,0	2.529	2.393	4.922	49	100
Physical Contingencies	151,8	120,5	272,3	112	89	200	44	4
Price Contingencies	592,5	87,9	680,5	436	65	500	13	10
<b>Total PROJECT COSTS</b>	4.183,9	3.462,9	7.646,8	3.076	2.546	5.623	45	114

Summary table: total cost by expenditure accounts ('000 USD)

	(Kyat Million)			(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
<b>I. Investment Costs</b>								
A. Civil works	-	-	-	-	-	-	-	-
B. Machinery and Equipment	58,5	87,8	146,3	43	65	108	60	2
C. Materials and Supplies	337,3	950,0	1.287,2	248	699	947	74	19
D. Vehicles	-	-	-	-	-	-	-	-
E. Training and Workshops	573,1	101,1	674,3	421	74	496	15	10
F. Monitoring and Evaluation	-	-	-	-	-	-	-	-
G. International Consultants	484,5	1.453,5	1.938,0	356	1.069	1.425	75	29
H. National Consultants	1.873,0	624,3	2.497,4	1.377	459	1.836	25	37
I. Financial services	-	-	-	-	-	-	-	-
J. Grants	-	-	-	-	-	-	-	-
<b>Total Investment Costs</b>	<b>3.326,5</b>	<b>3.216,7</b>	<b>6.543,2</b>	<b>2.446</b>	<b>2.365</b>	<b>4.811</b>	<b>49</b>	<b>98</b>
<b>II. Recurrent Costs</b>								
A. Salaries and Allowances	-	-	-	-	-	-	-	-
<b>B. Operating costs</b>								
Operation and Maintenance	-	-	-	-	-	-	-	-
Other operating costs	113,1	37,7	150,8	83	28	111	25	2
<b>Total Recurrent Costs</b>	<b>113,1</b>	<b>37,7</b>	<b>150,8</b>	<b>83</b>	<b>28</b>	<b>111</b>	<b>25</b>	<b>2</b>
<b>Total BASELINE COSTS</b>	<b>3.439,6</b>	<b>3.254,4</b>	<b>6.694,0</b>	<b>2.529</b>	<b>2.393</b>	<b>4.922</b>	<b>49</b>	<b>100</b>
Physical Contingencies	151,8	120,5	272,3	112	89	200	44	4
Price Contingencies	592,5	87,9	680,5	436	65	500	13	10
<b>Total PROJECT COSTS</b>	<b>4.183,9</b>	<b>3.462,9</b>	<b>7.646,8</b>	<b>3.076</b>	<b>2.548</b>	<b>5.623</b>	<b>45</b>	<b>114</b>

## Detailed table: dissemination of GAP (base cost '000 USD)

	Unit	Quantities							Total	Unit Cost (US\$)	Base Cost (US\$ '000)							Total
		2018	2019	2020	2021	2022	2023	2024			2018	2019	2020	2021	2022	2023	2024	
<b>I. Investment Costs</b>																		
<b>A. Technical assistance</b>																		
<b>1. International TA</b>																		
Chief agronomist	Person month	12	12	12	-	-	-	-	36	19,000	228	228	228	-	-	-	-	684
Plant protection specialist (IPM)	Person month	2	2	2	-	-	-	-	6	19,000	38	38	38	-	-	-	-	114
<b>Subtotal</b>											266	266	266	-	-	-	-	798
<b>2. National TA</b>																		
Agronomist	Person month	6	12	12	9	6	-	-	45	3,000	18	36	36	27	18	-	-	135
Extension specialist	Person month	6	12	12	6	6	-	-	42	3,000	18	36	36	18	18	-	-	126
Post harvest specialist	Person month	-	6	6	-	-	-	-	12	3,000	-	18	18	-	-	-	-	36
Soil/plant nutrition specialists	Person month	2	2	2	-	-	-	-	6	3,000	6	6	6	-	-	-	-	18
IT specialist	Person month	2	2	2	-	-	-	-	6	3,000	6	6	6	-	-	-	-	18
<b>Subtotal</b>											48	102	102	45	36	-	-	333
<b>Subtotal</b>											314	368	368	45	36	-	-	1.131
<b>B. GAP studies</b>																		
Review of existing GAP options	Lumpsum										-	10	-	-	-	-	-	10
Review of existing IPM options	Lumpsum										-	10	-	-	-	-	-	10
Compilation of training manual for lead farmers	Lumpsum										-	20	-	-	-	-	-	20
<b>Subtotal</b>											-	40	-	-	-	-	-	40
<b>H. FAO administrative fees</b>																		
TSS /a	Lumpsum										14	10	10	10	10	-	-	54
Reporting	Lumpsum										-	-	-	-	7	-	-	7
Project evaluation	Lumpsum										-	-	-	-	40	-	-	40
PSC /b	Lumpsum										350	-	-	-	-	-	-	350
<b>Subtotal</b>											364	10	10	10	57	-	-	451
<b>Total</b>											678	418	378	55	93	-	-	1.622

## Detailed table: household nutrition (base cost '000 USD)

	Unit	Quantities							Total	Unit Cost (US\$)	Base Cost (US\$ '000)						Total
		2018	2019	2020	2021	2022	2023	2024			2018	2019	2020	2021	2022	2023	
<b>I. Investment Costs</b>																	
<b>A. Technical assistance</b>																	
<b>1. International TA</b>																	
Nutrition sensitive program specialist	Person month	4	4	1	1	-	-	-	10	19,000	76	76	19	19	-	-	190
Nutrition education specialist	Person month	-	1	1	-	-	-	-	2	19,000	-	19	19	-	-	-	38
Agronomist-food composition specialist	Person month	2	-	-	-	-	-	-	2	19,000	38	-	-	-	-	-	38
<b>Subtotal</b>											114	95	38	19	-	-	266
<b>2. National TA</b>																	
Nutrition coordinator/administrat	Person month	2	12	12	6	6	-	-	38	3,000	6	36	36	18	18	-	114
NGO with nutrition M&E expertise	Person month	-	6	6	6	-	-	-	18	3,000	-	18	18	18	-	-	54
NGO township support staff	Person month	-	12	12	12	-	-	-	36	900	-	11	11	11	-	-	32
NGO field agents	Person month	-	10	12	12	-	-	-	34	600	-	6	7	7	-	-	20
NGO village mobilisers	Person month	-	1,500	1,800	1,800	-	-	-	5,100	5	-	8	9	9	-	-	26
TA nutrition assessment and M&E specialist	Person month	3	1	-	-	-	-	-	4	3,000	9	3	-	-	-	-	12
Nutrition specialist	Person month	3	12	12	6	4,6	-	-	37,6	3,000	9	36	36	18	14	-	113
NGO operating costs	Lumpsum	-	-	-	-	-	-	-	-	-	-	6	6	-	-	-	18
<b>Subtotal</b>											24	123	123	87	32	-	389
<b>Subtotal</b>											138	218	161	106	32	-	655
<b>B. Studies</b>																	
Effective BCC messages and nutrition resource mapping	Lumpsum	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2
Pilot TIP study or barrier analysis	Lumpsum	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	5
Nutritional behaviour barrier analysis	Lumpsum	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	30
<b>Subtotal</b>											37	-	-	-	-	-	37
<b>C. Materials and supplies</b>																	
Demonstration materials for BCC	Lumpsum	-	600	600	300	-	-	-	1,500	50	-	30	30	15	-	-	75
Training/curriculum development and manual distribution	Lumpsum	-	-	-	-	-	-	-	-	-	60	-	-	-	-	-	60
BCC material development	Lumpsum	-	-	-	-	-	-	-	-	-	60	-	-	-	-	-	60
Package to address key nutrition constraints /a	Lumpsum	-	-	-	-	-	-	-	-	-	48	48	48	48	48	26	266
<b>Subtotal</b>											168	78	78	63	48	26	461
<b>D. Equipment</b>																	
Tablets for nutrition M&E	Each	-	50	-	-	-	-	-	50	150	-	8	-	-	-	-	8
<b>E. Workshops and training</b>																	
BCC consultation for CDZ	Workshop	1	-	-	-	-	-	-	1	6,000	6	-	-	-	-	-	6
Township staff nutrition training	Workshop	6	6	-	-	-	-	-	12	2,000	12	12	-	-	-	-	24
TOT training/NGO field extension staff trained	Workshop	0,1	0,1	0,1	-	-	-	-	0,3	6,000	1	1	1	-	-	-	2
Monthly BCC training at township level	Course	-	50	60	60	-	-	-	170	200	-	10	12	12	-	-	34
Field staff coordinated nutrition demonstrations	Course	-	230	300	300	-	-	-	830	30	-	7	9	9	-	-	25
BCC short courses in CDZ regions	Course	5	5	5	-	-	-	-	15	3,000	15	15	15	-	-	-	45
Mid-term nutrition progress workshop	Workshop	-	-	1	-	-	-	-	1	3,000	-	-	3	-	-	-	3
Completion workshop	Workshop	-	-	-	-	-	1	-	1	3,000	-	-	-	-	3	-	3
Tablets for nutrition M&E	Each	-	50	-	-	-	-	-	50	150	-	8	-	-	-	-	8
<b>Subtotal</b>											34	52	40	21	-	3	149
<b>Total</b>											377	356	279	190	80	29	1.310



## Detailed table: Off-farm employment (base cost '000 USD)

Unit	Quantities								Unit Cost (US\$)	Base Cost (US\$ '000)							
	2018	2019	2020	2021	2022	2023	2024	Total		2018	2019	2020	2021	2022	2023	2024	Total
<b>I. Investment Costs</b>																	
<b>A. Technical assistance</b>																	
<b>1. International TA</b>																	
Off-farm business development specialist	Person month	-	2	1	1	-	-	-	4	19,000	-	38	19	19	-	-	76
<b>2. National TA</b>																	
Local NGO specialist in income generating activities	Person month	-	12	12	12	6	-	-	42	3,000	-	36	36	36	18	-	126
Technical support to income generation	Person month	-	2	2	2	2	-	-	8	3,000	-	6	6	6	6	-	24
NGO delivery of financial literacy program	Course	-	70	70	-	-	-	-	140	600	-	42	42	-	-	-	84
NGO support to village livelihood groups	Course	70	140	140	70	-	-	-	420	700	49	98	98	49	-	-	294
<b>Subtotal</b>											49	182	182	91	24	-	528
<b>Subtotal</b>											49	220	201	110	24	-	604
B. Support for soft activities /a	micro-enterprise	-	200	500	1,000	1,000	300	-	3,000	50	-	10	25	50	50	15	150
<b>C. Workshops and training</b>																	
Experience sharing inter-village visits	Each	-	-	70	140	70	-	-	280	120	-	-	8	17	8	-	34
Annual district livestock and income generating fair	Each	-	-	3	6	6	3	-	18	4,000	-	-	12	24	24	12	72
<b>Subtotal</b>											-	-	20	41	32	12	106
<b>Total</b>											49	230	246	201	106	27	860

## Detailed table Monitoring and evaluation (base cost '000 USD)

Unit	Quantities								Unit Cost (US\$)	Base Cost (US\$ '000)								
	2018	2019	2020	2021	2022	2023	2024	Total		2018	2019	2020	2021	2022	2023	2024	Total	
<b>I. Investment Costs</b>																		
<b>A. Technical Assistance</b>																		
<b>1. International TA</b>																		
Multisector M&E implementation specialist	Person month	2	2	2	2	2	-	-	10	19,000	38	38	38	38	38	-	-	190
Data analysis specialist	Person month	-	1	1	1	1	1	-	5	19,000	-	19	19	19	19	19	-	95
<b>Subtotal</b>											38	57	57	57	57	19	-	285
<b>2. National TA</b>																		
Multisector/location M&E implementation specialist	Person month	12	12	12	12	12	12	-	72	3,000	36	36	36	36	36	36	-	216
IT and survey software consultant	Person month	2	2	2	2	2	2	-	12	3,000	6	6	6	6	6	6	-	36
<b>Subtotal</b>											42	42	42	42	42	42	-	252
<b>Subtotal</b>											80	99	99	99	99	61	-	537
<b>B. Data collection capacity</b>																		
Field data collector /a	Person month	42	42	42	42	42	42	-	252	1,100	46	46	46	46	46	46	-	277
motorcycles	Each	14	-	-	-	-	-	-	14	1,000	14	-	-	-	-	-	-	14
Tablets	Each	14	-	-	-	-	-	-	14	150	2	-	-	-	-	-	-	2
<b>Subtotal</b>											62	46	46	46	46	46	-	293
<b>C. Materials and supplies</b>																		
Collect mobile material and equipment	Lumpsum										-	15	-	-	-	-	-	15
<b>D. Workshops and training</b>																		
M&E training for township staff and project beneficiaries /b	Workshop	2	-	-	2	-	-	-	4	6,000	12	-	-	12	-	-	-	24
Participatory monitoring evaluation	Township	14	14	14	14	14	14	-	84	500	7	7	7	7	7	7	-	42
PIU and PSC field monitoring visits	Each	-	-	1	4	4	1	-	10	2,500	-	-	3	10	10	3	-	25
<b>Subtotal</b>											19	7	10	29	17	10	-	91
<b>E. Equipment</b>																		
Township DOP DPB notebookcomputers	Each	-	10	-	-	-	10	-	20	2,000	-	20	-	-	-	20	-	40
Township DOP DPB printers	Each	-	5	-	-	-	5	-	10	2,000	-	10	-	-	-	10	-	20
Smartpads for participating village tracts	Each	-	40	-	-	-	40	-	80	300	-	12	-	-	-	12	-	24
<b>Subtotal</b>											-	42	-	-	-	42	-	84
<b>Total Investment Costs</b>											161	209	155	174	162	159	-	1,020
<b>II. Recurrent Costs</b>																		
<b>A. Motorcycle</b>																		
motorcycle per year		14	14	14	14	14	14	-	84	1,000	14	14	14	14	14	14	-	84
<b>B. Equipment M&amp;E</b>																		
Equipment M&E	Lumpsum										-	3	3	3	3	7	7	27
<b>Total Recurrent Costs</b>											14	17	17	17	17	21	7	111
<b>Total</b>											175	227	172	192	180	179	7	1,131

## Appendix V: project risk log

### Section A: Risks

Risk No.	Risk statement	Impact [effect on project organization if risk were to occur: H,MH,ML or L]	Likelihood [estimate of likelihood: H,MH,ML or L]	Overall ranking (Red/Amber /Green)	Mitigating action	Action owner [person/unit appointed to monitor this risk]	Target date
<b>1.1 Small scale irrigation improvements</b>							
1	Over-pumping from aquifer in the case of groundwater irrigation through tubewells	H	M	A	(i) selection of area suited for small scale groundwater irrigation based on existing data; and (ii) carrying out of ground water survey in these pre-selected areas	Chief agronomist of FAO TA	PY 1
2	Over irrigation causing salinity and water table rise	H	M	A	Dissemination of GAP including recommended irrigation volumes	Chief agronomist of FAO TA	PY 1
<b>2.1 Access to improved inputs for supported value chains</b>							
3	Low demand for improved seed and fertiliser at market price	M	L	G	(i) Better assessment in collaboration with private sector of suitable and well-performing varieties and inputs; and (ii) agriculture digital finance scheme for eligible low income farmers to test profitability	Chief agronomist of FAO TA	PY 1-5
4	Distribution of low quality grade of fertilizer and agrochemicals	M	M	A	(i) use of agro-retail shops for the digital finance system which are directly linked to reputable agro-dealers from the Myanmar Fertilizer, Seed and Pesticide Entrepreneurs Association, (ii) collaboration only with agro-dealers who have proper certification,	Chief agronomist of FAO TA	PY 1-5

<b>Risk No.</b>	<b>Risk statement</b>	<b>Impact [effect on project organization if risk were to occur: H,MH,ML or L]</b>	<b>Likelihood [estimate of likelihood: H,MH,ML or L]</b>	<b>Overall ranking (Red/Amber /Green)</b>	<b>Mitigating action</b>	<b>Action owner [person/unit appointed to monitor this risk]</b>	<b>Target date</b>
					(iii) participating agro dealers will agree on intermittent analysis of inputs facilitated through the project (monitoring of input supplier shops), and (iv) support to PPD and LUD to also conduct spot checks on non-participating agro-dealers in the target area		
<b>2.2 Dissemination of GAP</b>							
5	Insufficient number of DOA-ED extension staff	L	M	G	(i) Make extensive use of lead farmers and farmer to farmer extension, (ii) DOA-ED commitment to provide sufficient human resources at township and village tract level, and (iii) CVAFC to collaborate with DOA to provide sufficient support in mobility to DOA-ED in the target area	Chief agronomist of FAO TA, DOA	PY 1-5
6	Promoted GAP are too complex, costly, and impractical for smallholders	L	L	G	(i) participatory development of practical GAP for resource constrained smallholders (ii) identify and promote only a few key agronomic improvements with promising “quick-wins” before moving to more complex ones in a second round.	Chief agronomist of FAO TA	PY 1-5
7	Lead farmers not ready to share information or allocate sufficient time and energy for	M	L	G	(i) design an attractive package for lead farmers to compensate for their risks and efforts; (ii) involve them as actors in extension videos; (iii) DOA-ED to give regular back-up and support; (iv) involve	Chief agronomist of FAO TA; DOA	PY 1-5

Risk No.	Risk statement	Impact [effect on project organization if risk were to occur: H,MH,ML or L]	Likelihood [estimate of likelihood: H,MH,ML or L]	Overall ranking (Red/Amber /Green)	Mitigating action	Action owner [person/unit appointed to monitor this risk]	Target date
	knowledge dissemination				as much as possible the private sector to participate in demonstrations and training provision to increase interest and trust of farmers		
<b>3.1 Land administration</b>							
8	Lack of effective engagement of DALMS in the project	M	M	A	Suggest that DALMS is considered in one way or the other as a more genuine implementing partner	Chief agronomist of FAO TA; DALMS	
9	Resistance to the adoption of new technology	M	M	A	Implement a sound mix of interventions to mitigate this, including awareness raising of senior staff to achieve mind-set change, further field demonstrations, learning visits to other countries that were successful in making this change, training, and finally administrative executive order	Chief agronomist of FAO TA; DOA	PY 1-5
10	Resistance from local institutions to adopt principles of transparency and accountability to deliver services	M	H	A	Enforce clear instructions from the administrative hierarchy to adopt such principles	Chief agronomist of FAO TA; MOALI; local administrations	PY 1-5
11	Untimely amendment of Farmland Law	L	M	G	MoALI/DALMS to approve exceptional legal conditions for the implementation of this project, as has happened in the past	MOALI and DALMS	PY 1

Risk No.	Risk statement	Impact [effect on project organization if risk were to occur: H,MH,ML or L]	Likelihood [estimate of likelihood: H,MH,ML or L]	Overall ranking (Red/Amber /Green)	Mitigating action	Action owner [person/unit appointed to monitor this risk]	Target date
					with other projects. This could refer to easing conditions and procedures to change land use on certified land, increase expediency at township level to approve land lease contracts, extra procedures to secure tenure rights over smaller fishponds (up to five acres, for instance), more flexibility for free crop choice on land classified as paddy fields, etc.		
<b>3.2 Nutrition improvements</b>							
12	Insufficient overlap with other development agencies on nutrition aspects	L	L	G	All activities will build on lessons derived from previous interventions and focus on strengthening strategic partnerships to avoid duplication and incoherence as well as to ensure synergy and complementarity of support to leverage impact. Convening platforms such as the Scaling-Up Nutrition Network (SUN) and its respective UN, donor, business, and Civil Society network will be engaged to the extent possible through initial consultations and throughout implementation	Chief agronomist of FAO TA	PY 1

<b>Risk No.</b>	<b>Risk statement</b>	<b>Impact [effect on project organization if risk were to occur: H,MH,ML or L]</b>	<b>Likelihood [estimate of likelihood: H,MH,ML or L]</b>	<b>Overall ranking (Red/Amber /Green)</b>	<b>Mitigating action</b>	<b>Action owner [person/unit appointed to monitor this risk]</b>	<b>Target date</b>
13	Insufficient institutional fabric to carry out nutrition behaviour change communication	M	M	A	Recruiting an implementing partner to engage staff to work in close collaboration with village-level outreach officers from MOE, MOHS, and MOALI to ensure that a common understanding of roles and responsibilities is established among community workers and capacities are strengthened	Chief agronomist of FAO TA; Nutrition specialist in country office	PY 1
14	Resistance to changing dietary practices due to cultural constraints	M	H	A	Implement a methodology following behaviour change communication theory will inform all nutrition education activities to ensure that recommendations, messages and approaches for community engagement are anchored in a deep understanding of local norms, values and preferences	Chief agronomist of FAO TA; Nutrition specialist in country office	PY 1
<b>3.3 Off-farm rural employment</b>							
15	Creating unreal expectations of non-landowning participants	L	L	G	Put in place sensitization and screening processes that do not create unreal expectations of the levels of project support for the households which wish to have a livestock or micro-enterprise; and, (ii) the life skills activities should provide value to households which are not able to successful develop their preferred enterprise	Chief agronomist of FAO TA; off-farm employment experts	PY 1-2

<b>Risk No.</b>	<b>Risk statement</b>	<b>Impact [effect on project organization if risk were to occur: H,MH,ML or L]</b>	<b>Likelihood [estimate of likelihood: H,MH,ML or L]</b>	<b>Overall ranking (Red/Amber /Green)</b>	<b>Mitigating action</b>	<b>Action owner [person/unit appointed to monitor this risk]</b>	<b>Target date</b>
16	Difficulty in identifying new micro-enterprise activities	M	M	A	(i) use study/experience sharing visits to other villages to show possible enterprises that could be adopted; (ii) work with existing successful landholders in villages to identify opportunities where services (equipment hire, contract labour supply, specialized value adding)) can be provided to the existing farmers in production and post-harvest activities; and (iii) monitor implementation of the new micro-enterprise activities to ensure that the potential markets for services or goods are not over-supplied	Chief agronomist of FAO TA; off-farm employment experts	PY 1-2
<b>3.4 Monitoring and evaluation</b>							
16	M&E activities on large scale projects can become a standalone activity	L	M	G	(i) Development of the results frameworks will focus on addressing the needs of Government of the Republic of the Union of Myanmar and the project funding stakeholders; (ii) The M&E activities will be located in the Planning Section of the MOA which is being strengthened by the Ministry to take a leading role in Ministry M&E activities. The staff allocations are at appropriate administrative levels to provide the high-level support needed; (iii) the GAFSP M&E activities will be	Chief agronomist of FAO TA; M&E expert	PY1-2



Risk No.	Risk statement	Impact [effect on project organization if risk were to occur: H,MH,ML or L]	Likelihood [estimate of likelihood: H,MH,ML or L]	Overall ranking (Red/Amber /Green)	Mitigating action	Action owner [person/unit appointed to monitor this risk]	Target date
					integrated into the overall GAFSP/CFAVC M&E system so a consistent approach and data collection processes across all project M&E activities; and (iv) The MIS function will be located in the government agency with ongoing responsibility for providing MIS support to the MOA so will have ongoing budget support		
17	Unsuitable processes for M&E at township level	L	M	G	(i) User-friendly Tablet based software will greatly improve the quality and timeliness of activity and process monitoring data; (ii) the focus of data collection will be at the village tract level (i.e. Group of villages) which is the lowest level at which there is a paid government official who can be delegated with ensuring the required information is collected; (iii) Where service providers are used, their service contract will require them to collect and enter the required detailed information into the project MIS so it is accessible to the GAFSP/CFAVC M&E unit	Chief agronomist of FAO TA; M&E expert	PY 1-3

**Section B: Environmental and Social risks<sup>30</sup>**

ESS Standard	Risk Description	Mitigation hierarchy	Mitigation action	Responsible	Timeframe	Indicator
ESS 1	Over-pumping from aquifer in the case of groundwater irrigation through tubewells		(i) selection of area suited for small scale groundwater irrigation based on existing data; and (ii) carrying out of ground water survey in these pre-selected areas	Chief agronomist of FAO TA	PY 1	
ESS 2	Over irrigation causing salinity and water table rise		Dissemination of GAP including recommended irrigation volumes	Chief agronomist of FAO TA	PY 1	
ESS 3	Insufficient institutional fabric to carry out nutrition behaviour change communication		With support from FAO, an implementing partner will engage staff to work in close collaboration with village-level outreach officers from MOE, MOHS, and MOALI to ensure that a common understanding of roles and responsibilities is established among community workers and capacities are strengthened to contribute effectively to the improvement of the nutrition at household and individual level			

<sup>30</sup> Please consult available corporate guidelines and training for information on how to complete the risk log.

## **Appendix VI: FAO and Government Obligations**

(a) This Annex sets out the basic conditions under which FAO will assist the Government in the implementation of the Project described in the attached Project Document.

(b) The achievement of the objectives set by the Project shall be the joint responsibility of the Government and FAO.

### **FAO OBLIGATIONS**

1. FAO will be responsible for the provision, with due diligence and efficiency, of assistance as provided in the Project Document. FAO and the Government will consult closely with respect to all aspects of the Project.

2. Assistance under the Project will be made available to the Government, or to such entity as provided in the Project, and will be furnished and received: (i) in accordance with relevant decisions of the Governing Bodies of FAO, and with its constitutional and budgetary provisions; and (ii) subject to the receipt by FAO of the necessary contribution from the Resource Partner. FAO will disburse the funds received from the Resource Partner in accordance with its regulations, rules and policies. All financial accounts and statements will be expressed in United States Dollars and will be subject exclusively to the internal and external auditing procedures laid down in the financial regulations, rules and directives of FAO.

3. FAO's responsibilities regarding financial management and execution of the Project will be as stipulated in the Project Document. FAO may, in consultation with the Government, implement Project components through partners identified in accordance with FAO procedures. Such partners will have primary responsibility for delivering specific project outputs and activities to the Project in accordance with the partner's rules and regulations, and subject to monitoring and oversight, including audit, by FAO.

4. Assistance under the Project provided directly by FAO, including technical assistance services and/or oversight and monitoring services, will be carried out in accordance with FAO regulations, rules and policies, including on recruitment, travel, salaries, and emoluments of national and international personnel recruited by FAO, procurement of services, supplies and equipment, and subcontracting. The candidacies of senior international technical staff for recruitment by FAO will be submitted to the Government for clearance following FAO procedures.

7. Equipment procured by FAO will remain the property of FAO for the duration of the Project. The Government will provide safe custody of such equipment, which is entrusted to it prior to the end of the Project. The ultimate destination of equipment procured under this Project will be decided by FAO in consultation with the Government and the Resource Partner.

### **GOVERNMENT OBLIGATIONS**

8. With a view to the rapid and efficient execution of the Project, the Government shall grant to FAO, its staff, and all other persons performing services on behalf of FAO, the necessary facilities including:

- i) the prompt issuance, free of charge, of any visas or permits required;
- ii) any permits necessary for the importation and, where appropriate, the subsequent exportation, of equipment, materials and supplies required for use in connection with the Project and exemption from the payment of all customs duties or other levies or charges relating to such importation or exportation;

- iii) exemption from the payment of any sales or other tax on local purchases of equipment, materials and supplies for use in connection with the project;
- iv) any permits necessary for the importation of property belonging to and intended for the personal use of FAO staff or of other persons performing services on behalf of FAO, and for the subsequent exportation of such property;
- v) prompt customs clearance of the equipment, materials, supplies and property referred to in subparagraphs (ii) and (iv) above.

9. The Government will apply to FAO, its property, funds and assets, its officials and all the persons performing services on its behalf in connection with the Project: (i) the provisions of the Convention on Privileges and Immunities of the Specialized Agencies; and (ii) the United Nations currency exchange rate. The persons performing services on behalf of FAO will include any organization, firm or other entity, which FAO may designate to take part in the execution of the Project.

10. The Government will be responsible for dealing with any claims which may be brought by third parties against FAO, its personnel or other persons performing services on its behalf, in connection with the Project, and will hold them harmless in respect to any claim or liability arising in connection with the Project, except when it is agreed by FAO and the Government that such claims arise from gross negligence or wilful misconduct of such persons.

11. The Government will be responsible for the recruitment, salaries, emoluments and social security measures of its own national staff assigned to the project. The Government will also provide, as and when required for the Project, the facilities and supplies indicated in the Project Document. The Government will grant FAO staff, the Resource Partner and persons acting on their behalf, access to the Project offices and sites and to any material or documentation relating to the Project, and will provide any relevant information to such staff or persons.

### **REPORTING AND EVALUATION**

12. FAO will report to the Government (and to the Resource Partner) as scheduled in the Project Document.

13. The Government will agree to the dissemination by FAO of information such as Project descriptions and objectives and results, for the purpose of informing or educating the public. Patent rights, copyright, and any other intellectual property rights over any material or discoveries resulting from FAO assistance under this Project will belong to FAO. FAO hereby grants to the Government a non-exclusive royalty-free license to use, publish, translate and distribute, privately or publicly, any such material or discoveries within the country for non-commercial purposes. In accordance with requirements of some Resource Partners, FAO reserves the right to place information and reports in the public domain.

14. The Project will be subject to independent evaluation according to the arrangements agreed between the Government, the Resource Partner and FAO. The evaluation report will be publicly accessible, in accordance with the applicable policies, along with the Management Response. FAO is authorized to prepare a brief summary of the report for the purpose of broad dissemination of its main findings, issues, lessons and recommendations as well as to make judicious use of the report as an input to evaluation synthesis studies.

### **FINAL PROVISIONS**

15. Any dispute or controversy arising out of or in connection with the Project or this Agreement will be amicably settled through consultations, or through such other means as agreed between the Government and FAO.

16. Nothing in or related to any provision in this Agreement or document or activity of the Project shall be deemed (i) a waiver of the privileges and immunities of FAO; (ii) the acceptance by FAO of the applicability of the laws of any country to FAO, and: (iii) the acceptance by FAO of the jurisdiction of the courts of any country over disputes arising from assistance activities under the Project.

17. This Agreement may be amended or terminated by mutual written consent. Termination will take effect sixty days after receipt by either party of written notice from the other party. In the event of termination, the obligations assumed by the parties under this Agreement will survive its termination to the extent necessary to permit the orderly conclusion of activities, and the withdrawal of personnel, funds and property of FAO.

18. This Agreement will enter into force upon signature by the duly authorized representatives of both parties.

## Appendix VII: Gender Action Plan

Gender Objectives	Gender activities/actions	Performance indicators/targets	Process Oriented suggestion
<b>Output 1: Critical agribusiness value chain infrastructure improved and made climate resilient</b>			
<p>1.a. Ensure critical agribusiness VC infrastructure is responsive to the needs of women and men</p>	<p>1.a. Involve women, voluntary gender focal and women's organization representatives actively and meaningfully in each individual event/consultations and planning activities related to improvement and climate resiliency of critical infrastructure and procuring new machinery and equipment supported by the project.</p>	<p>1.a.i. 10 projects supported DOA seed farms produce at least 3,000 tons of HYV rice seed, 130 tons of chickpea seed, 180 tons of green gram, and 70 tons of sesame annually (2016 baseline: 378 tons of HYV rice, 25 tons of chickpea, 36 tons of green gram, and 20 tons of sesame) to benefit at least 35,000 households including 80,000 females (2017 baseline:0)</p> <p>1.a.ii Women are at least 50% of participants for planning and decision making in most events (at least 80%) organized at community level (point of reference: 2014 Myanmar Population and Housing Census 52% to 54% female population in 3 targeted regions) ;</p> <p>1.a.iii. Consultation reports/minutes include information on infrastructure related needs expressed by female participants e.g. infrastructure that reduces time and labor for women farmers.</p>	<p><i>This would mean paying attention to the following aspects: meetings are held at a convenient time for women taking into account their workloads and domestic responsibilities, adequate venue (ie. centrally located, in place where women may feel comfortable attending such as a community center), information sharing with visual aids/illustrations, sessions led by female facilitators, informal child care during meetings is provided, etc.</i></p> <p><i>This would also mean that brainstorming sessions to (i) prioritize infrastructure needs and (ii) identify needs in terms of physical design features to be integrated in prioritized infrastructure are organized first with separate groups of female and male participants before sharing and decision is made in plenary with female and male participants mixed. Ensure decision-making process is participatory and takes into account the needs that were expressed by female participants.</i></p>
	<p>1.b Integrate physical design features that are addressing women's needs into improved climate resilient VC infrastructure where relevant including time and labor saving equipment, machinery and technology.</p>	<p>1.b. 13,000 ha of additional area brought under climate smart irrigation and water management through renovating 130 km of minor canals (6000 ha), rehabilitating 15 community reservoirs (1000 ha) and installing 8000 shallow tube wells (6000 ha) to benefit at least 35,000 households, including 80,000 females (2017 baseline: 0)</p> <p>1.b.ii Number and types (concrete examples) of physical design features that are addressing women's needs integrated into improved climate resilient VC infrastructure, equipment and machinery.</p>	<p>Gender responsive physical designs in improved infrastructure related to irrigation, drainage, buildings, farm and related to post-harvest machinery and equipment, seed testing equipment, etc; height, location and design of facility/equipment in agribusinesses to be upgraded; sanitation facilities in buildings.</p> <p><i>Gender-responsive defined as: (i) based on needs and interest of female farmers; (ii) those that reduce time and labor especially for women farmers; (iii) and give women</i></p>

			more choices in their productive and reproductive spheres.
1.b. Enhance income generating opportunities for women	1.b. i Ensure women benefit from jobs created through the project: <ul style="list-style-type: none"> <li>i. Infrastructure construction/rehabilitation/renovation of minor canals, installing tube wells (Skilled/Unskilled)</li> <li>ii. Operation and maintenance of improved infrastructure, machinery and equipment e.g, community farming machinery and buildings</li> <li>iii. New permanent jobs created in upgraded agribusinesses investment such as government farm machinery service centres and value –added processing centres</li> </ul>	1.b.i For civil works <ul style="list-style-type: none"> <li>i. At least 40% of paid works are allocated for landless/poor women with equal pay (<b>Point of reference: women's current involvement is about 40% in similar infrastructure-related work in rural areas by CDD national wide project</b>)</li> <li>ii. At least 30% of O&amp;M jobs are for women. (<b>CDD project assigned 20% to 40% of women in O&amp;M</b>)</li> <li>iii. Women are appointed to at least 40% of new permanent jobs created in upgraded agribusinesses (overall target), and 30% of any new management positions.</li> </ul>	<p><i>This would mean that information about such employment opportunities will be communicated through adequate channels (radio, print, announcements at community centers) to reach out women in the targeted areas, and that special efforts (ie. outreach to women's groups, ads that specifically state that women are encouraged to apply) are made to attract potentially interested women in skilled construction work and in operation and maintenance, and competent women in management positions.</i></p> <p><i>As Contractors are key to the achievement of this indicator, discussions about labor selection should be conducted with them to ensure women benefit from jobs. They will also be responsible for hiring women per the conditions set out in bidding documents which include the targets for hiring women.</i></p> <p><i>Core labor standards will be complied with, especially equal pay for work of equal value (verified through policies, records). Other measures that are needed will be taken (e.g. child care arrangements even if informal) so that interested women can grasp such opportunities.</i></p>
	1.b.ii Provide technical skilled training to laboratory staffs (men & women) for safety and quality testing capability in laboratory management.	1.b.ii Equal participation of men and women to be trained according to current number of staffs	
<b>Output 2: Climate smart agriculture and agribusiness promoted</b>			
2.a. Strengthen women farmers' (individual and member of farmers' groups)	2.b. Encourage women to become contact farmers and train them through farmer field schools and on-farm demonstrations for adopting of GAP and CSA techniques including farming of nutrition rich crops and dissemination of improved inputs (seeds, fertilizers and pesticides) and promoting farm mechanization	2b. At least 300 lead seed growers (30% women) trained in certified seed production, and 50,000 farmers (40% women) trained in CSA, GAP and agribusiness skills (2017 baseline: 0)  2c. At least 35,000 households, including at least 35,000 women, adopt GAP standards	<p><i>This would require training in a gender responsive manner ( times and venue for training, methodology, with trained male and female extension officers in gender and CSA, appropriate equipment and inputs, use of meteorological data, and other resources).</i></p>

<p>involvement along climate-friendly agribusiness VCs</p>		<p>for bean, pulse and oilseed production (2017 baseline = 0)</p> <p>2d. At least 50,000 farmers (of which 30% women) adopt water use efficient technologies and develop capacity to operate and maintain small scale irrigation schemes (2017 baseline: 0)</p> <p>2e. At least 50 agribusiness dealers and service providers, and 500 farmers (at least 30% women) trained in farm machinery operation and maintenance</p>	
	<p>2.b.i Integrate cooking demonstration session with the involvement of health workers, DOA extension staffs and teachers for utilization of nutrient-dense foods. As part of the demonstration a cooking competition will be held.</p>	<p>2.b.i At least (number or percentage of total number of villages in the project area?) cooking demonstration and competition sessions held.</p> <p>2.b.ii Participation of village admin, village key influencers, women, children and at least 40% of men in nutritious cooking competition session for inclusive awareness of nutrition</p>	<p><i>This would mean that project nutrition focal, health workers, teachers, DOA extension staffs will lead the selection of nutrient-dense foods from local market or backyard vegetable garden and villagers will cook as competition as group of men and women.</i></p> <p><i>This would also mean paying attention to the following aspects: convenient time, adequate venue for male and female farmers.</i></p>
	<p>2.b.ii Involve women farmers/seed growers/collectors/processors/ agro-dealers/exporters actively and meaningfully in each individual event for all agribusiness trainings for capacity building in GMP,GHP,HACCP and business plan development.</p> <p>2.b.iii Ensure women to access the digital finance service by their participation and decision making in e-transfer package support to secure loans for purchasing sessional crop input</p>	<p>2. b. iii At least 50% of participants are women in the majority of events for capacity building activities targeted at farmers (Point of reference: women constitute about 50% of the agricultural population)</p> <p>2.b. iv At least 50% of women actively involved in e-transfer support package to access seasonal credit for GAP based farm inputs. (Point of reference: women constitute about 50% of the agricultural population)</p>	<p><i>This would mean paying special attention to the following aspects: adequate venue, timing, duration, the way that invitation communicated (e.g. not exclusively to head of household), use of visual aids and other illustrated materials, use of female facilitators/demonstrators and extension agents, arrangements for informal child care offered, etc.</i></p> <p><i>Women should be provided information about their rights and procedures and encouraged to register either in their name instead of the head of household when they access finance OR information on how to register both spouses.</i></p>



2.c Ensure female staff benefit from capacity-building activities related to climate-friendly agribusiness VCs	2.c Ensure relevant female staff participate in capacity-building activities that are targeted at government officials at regional and local levels with regard to climate-friendly agribusiness VCs such as CSA, certified seed production and testing, farm mechanization	2.c.i At least 60% of participants in capacity building activities targeted for relevant staff at local levels are female extension staffs (Point of reference: DOA female extension staff are higher than male staffs)	
<b>Output 3: Enabling environment for climate friendly agribusiness enhanced</b>			
3.a Institutionalize gender mainstreaming in the climate-friendly agribusiness VCs sector	3.a At project inception conduct a value-chain analysis to understand different roles of women and men and women's preferences and constraints for each of the 5-targeted VCs and develop a set of clear recommendations to strengthen women farmers' involvement along the different VCs. Integrate key recommendations from gender analysis of VCs into Agribusiness policy and other related documents prepared under the project.	3.a.i One report prepared with clear recommendations based on gender analysis of the 5 value chains .  3.a.ii At least three climate friendly and gender-responsive agribusiness policies formulated that integrate key recommendations from the gender analysis (2017 baseline: 0)	<i>This would also mean that gender stakeholders (gender network, DSW, and women's organizations) participate in policy committees and meetings.</i>
	3.c.i Integrate a session on gender equality in climate-friendly agribusiness VCs (based on gender analysis report mentioned above) into the training program and awareness raising activities for relevant project stakeholders (i.e. relevant departments in MOALI, agricultural extension officers, GAD field workers, local leaders, MAAF and voluntary gender focal).	3.d.i Number of sessions provided on gender equality in climate-friendly agribusiness value chains; target groups; number of people trained disaggregated by sex.	<i>This will require that extension workers are knowledgeable of gender-responsive CSA practices and that female extension workers be hired.</i>  <i>Ensure extension agents and local agriculture officers understand the importance of reaching out to women farmers with inputs.</i>
	3.c.ii Raise awareness about existing affordable credit facilities including digital finance service and market promotion of export quality products among women farmers, women-led and/or owned enterprises and female staff in financial institutions using adequate channels to access these	3.c.ii Number and type of activities conducted; types of communication channels and materials used and % of women participants  30% of staff from financial institutions trained in green finance are women (2017 baseline: 0)	

		Weather, market and credit information systems at DOP upgraded to provide timely information to at least 50,000 community-level supply chain stakeholders, including 25,000 women (2017 baseline: Not available)	
	3.c.iii Strengthen linkages between women-led and/or owned farms/ enterprises and agribusiness industry through supporting their participation in project activities such as provision of weather, market and financial services information to increase their access to market information, and development of farm standards and codes of practice, including for export standards.	3.d.ii Number and type of activities conducted; number and % of women participants.	This would mean ensuring access to market information for both women and men farmers and find out what are the most appropriate channels to reach women farmers including use of ICT.
	3.e.i Organize separate meetings with women for land use survey, off-farm livelihood survey, agribusiness policy research, and advocacy, analysis on 5 targeted VC and promote joint titling for land allocation to the poor and landless women and men according to National Land use Policy, January, 2016.	3.e.i At least 50% of women were interviewed in researching for land use survey and agribusiness policy.  3.e.iii Incorporate information on National Land Use Policy and land right information sessions and identify and communicate with MOA when conflicts between customary and civil law are raised.	<i>This would mean paying special attention to the following aspects: adequate venue, timing, and duration.</i>
	3.e.ii Actively involve DSW, MWEA, MWAF and voluntary gender focal at community levels as key partners in project implementation and monitoring, especially for the GAP activities.	3.e.iv DSW, MWAF and voluntary gender focal are aware of the GAP activities.	Select one active woman per targeted community to act as voluntary gender focal  <ul style="list-style-type: none"> <li>- Young female graduates in the villages may be interested to take up the role of voluntary gender focal.</li> <li>- Implementation of the GAP activities is meant to support implementation of the National Strategic Plan for the Advancement of Women 2013-2022</li> </ul>