



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 29-Apr-2020 | Report No: PIDISDSA25232



BASIC INFORMATION

A. Basic Project Data

Country Myanmar	Project ID P164448	Project Name Myanmar National Food and Agriculture System Project	Parent Project ID (if any)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 04-May-2020	Estimated Board Date 30-Jun-2020	Practice Area (Lead) Agriculture and Food
Financing Instrument Investment Project Financing	Borrower(s) The Republic of the Union of Myanmar	Implementing Agency Ministry of Agriculture, Livestock, and Irrigation	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to increase agricultural productivity and diversification and to enhance market access for selected value chains in the Project area.

Components

- Component 1: Agriculture Productivity Enhancement and Diversification
- Component 2: Value Chain Development
- Component 3: Project Management, Coordination and Monitoring & Evaluation

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	85.00
Total Financing	85.00
of which IBRD/IDA	85.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	85.00
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IDA Credit	85.00
Environmental Assessment Category	
B-Partial Assessment	
Decision	
The review did authorize the team to appraise and negotiate	

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **With the COVID-19 crisis, Myanmar’s GDP growth for fiscal year 2019/20 is estimated to decline to a range of 2 to 3 percent from 6.3 percent compared to 2018-2019.**¹ Myanmar’s economic and political reforms over the past decade were accompanied with strong economic growth and macroeconomic stability. The country’s GDP grew at an annual rate of 6.0–8.5 percent during 2014/15–2016/17. This resulted in household income increases and significant progress in improving food security and reducing poverty. However, the outbreak of the COVID-19 pandemic is estimated to have a widespread impact on food and agriculture, tourism-related services, and supply chain disruptions as well as on the manufacturing sector. This would significantly slow poverty reduction and threaten a reversal of previous progress in lifting millions out of poverty. The agricultural and livestock sector is one of the keys sectors that suffers from COVID-19 outbreak.

2. **Despite the economic growth and the decline in poverty prior to COVID-19, poverty and inequality remain unacceptably high.** The COVID-19 outbreak is likely to further aggravate poverty and inequality. The impact of short-term economic fluctuations related to the COVID-19 pandemic is likely to disproportionately harm poor and vulnerable households. Sixty-eight percent of the poor work in agriculture and can suffer from declines in productions and prices associated with a reduction in exports. In addition, layoffs in the garment manufacturing sector which accounts for 500,000 jobs could also affect household incomes and domestic remittances. Moreover, large variations in poverty incidence also exist across the country. The poverty headcount rates in the Coastal and the Hills and Mountains agro-ecological zones (AEZs) are 44 percent and 40 percent respectively, while they are 32 percent and 26 percent in the Dry and Delta AEZs, respectively. The Hills and Mountains and the Coastal AEZs have a lower share of the population living in them, yet they comprise nearly half of the food insecure population, and about a third are in the bottom quintile of the expenditure distribution. These two AEZs combined have a 40 percent poverty rate and one in six people struggle to meet their basic food needs.² It is notable also that a majority of Myanmar’s conflict-affected communities are in the Hills and Mountains AEZs.

¹ EAP Economic Update: East Asia and the Pacific in the Time of COVID-19. March 23, 2020.

² World Bank. 2017. An Analysis of Poverty in Myanmar: Part 02-Poverty Profile



3. **Significant challenges also remain regarding access to services and infrastructure, location and ethnic disparities, and social inclusion.** All over the country, the poor have limited access to basic services and infrastructure, including clean water, education, health care, and electricity. Lack of access to markets and services—and indeed social exclusion more broadly—correlates with location, ethnicity, religion, and citizenship status. Gender equality indicators have slowly improved in recent years, but social norms continue to largely delineate spaces available to men and women, significantly affecting, among other things, women’s access to the labor market. A recent study shows, for example, that there is a gender gap in access to land officially in terms of holding land use certificates as normally the certificates are issued to household heads, rather than jointly, or to other members of the household.³

4. **The socio-economic needs of communities in one-third of Myanmar’s townships are further compounded by the direct and indirect effects of armed conflict.**⁴ There are around two dozen major ethnic armed organizations (EAOs) located in the country’s peripheries who have been fighting to secure greater political, economic and social freedoms for ethnic minority groups. The signing of several bilateral ceasefires from 2011 to 2015, and the Nationwide Ceasefire Agreement (NCA) by eight EAOs in 2015 followed by another two in 2018, led to some progress toward peace. However, there has been limited progress in the political dialogue around the NCA since then and around 10 EAOs, including some of the largest in the country, remain outside of the NCA process. Fighting continues in Rakhine, Chin, Shan, Kachin, and Kayin States. The Myanmar Humanitarian Response Plan for 2020 identifies more than 273,000 internally displaced people in the country.

B. Sectoral and Institutional Context

5. **Agriculture plays a vital role in reducing poverty in Myanmar, and further progress in the sector will remain important as the economy continues to evolve.** However, disruptions in the agriculture sector, due to COVID-19, would significantly slow poverty reduction and threaten a reversal of previous progress in lifting millions out of poverty. Agriculture is the source of livelihood for nearly 70 percent of the population and accounts for nearly 30 percent of national GDP and merchandise exports. The agri-food system accounts for some 42 percent of GDP, when forward and backward linkages to primary agriculture are considered. Agricultural growth has significantly helped to reduce poverty. The government’s Agricultural Development Strategy (ADS) recognized agriculture’s role in achieving food security, increasing foreign exchange earnings through exports, and driving rural development. Indeed, according to the Myanmar Sustainable Development Plan (MSDP, 2018–2030), “agriculture and SME sectors are prioritized as important sources of job creation”. More than one-third of the work force identified farming as their primary source of employment and 16 percent are agricultural laborers. The employment share in services and industry was 36 percent and 12 percent, respectively. Recent estimates show that Myanmar’s poverty rate could increase from 24.8 to 28.4 percent if incomes from agriculture were to decrease by 50 percent in one quarter and to 32.3 percent if the decline lasts two quarters.⁵ This means that among people living in agricultural households, poverty would increase by about two million and four million respectively. It is therefore imperative for the government to proactively respond to the potential impacts of

³ MOALI. 2019. Social Assessment - Peaceful and Prosperous Communities Project. P168107.

⁴ The Asia Foundation. 2017. The Contested Areas of Myanmar: Subnational Conflict, Aid, and Development.

⁵ EAP Economic Update: East Asia and the Pacific in the Time of COVID-19. March 23, 2020.



COVID-19 on the agricultural sector, which will in turn help the country its success in continuously reducing poverty in the country.

6. **Myanmar’s agriculture has ample potential for growth and value addition, and thus for inclusive rural growth and poverty alleviation.** Myanmar has abundant natural resources, a youthful workforce, and diverse farming systems. Its relatively untapped upstream and downstream agricultural value chains have a clear competitive advantage to meet the increasing food demand from the growing middle class in the country and the region. Increasing urbanization and income growth are also changing the dietary preferences and spending patterns of the population. All these developments are expected to accelerate and create growth opportunities for farmers and the private sector across all segments of the value chain and contribute to overall sectoral growth.

7. **Yet, the pace of agricultural growth remains slow and unstable, primarily attributed to low productivity.** Agriculture grew by an average of 2.5 percent annually between 2010 and 2017, further declining to 1.3 percent in 2017/2018. This growth was roughly half the rates in neighboring China and Thailand during the same stage of their economic transformation. Myanmar’s paddy productivity, both land and labor productivity, is among the lowest in Asia. Non-paddy crops (including beans and pulses, fruits and vegetables, tea, and oil crops) have shown stronger yield growth in the past few years and hence they provide great opportunities for export growth and improving nutrition. Low agricultural productivity is the result of multiple factors, including inadequate supply of public goods such as agricultural research and extension services, low supply of certified and improved seeds, low input (fertilizer and chemicals) quality, and poor knowledge among farmers about proper fertilizer usage.

- **Seeds.** Close to 80 percent of farmers in Myanmar are still using ordinary seeds, whereas the remaining use either certified or hybrid seeds. These farmers largely use own saved seeds. The public seed production system currently focuses on hybrid rice varieties and it needs to broaden its scope to include planting materials for a more diverse range of other crops, including horticulture crops. Myanmar has enacted a Seed Law in 2011, which establishes the rules and regulations for the seed sector related to the government, seed laboratories and private sectors engaged in seed businesses. However, private sector involvement in seed production and multiplication, has been limited, due to the lack of technical support, access to finance, and difficulties of doing business. While the Seed Policy (2011) aims to promote the supply of quality seeds through private sector participation, the country has insufficient facilities for certification, quality control and testing.
- **Fertilizers.** Farmers often underapply or over apply fertilizers, as they have insufficient knowledge about the fertility of their soils. This is compounded by the lack of access to appropriate tools such as mobile testing laboratories that undertake on-site soil fertility tests. Fertilizer quality is a widespread concern in Myanmar as most stakeholders—including farmers, government officials, and many in the private sector— do not have confidence in the quality of the fertilizers available in the country.⁶ These concerns include adulteration problems (for example, mixing of granular single superphosphate with granular triple superphosphate and selling it as the latter or adulteration with inferior products); mislabeling of bags to mislead farmers as to the brand of fertilizer; and selling in undersized bags. According to an OECD report in 2014, most farmers surveyed indicated that they were unable to determine whether the fertilizer

⁶ International Fertilizer Development Center (IFDC), 2018.



purchased (either imported or purchased domestically) was adulterated. This calls for the Department of Agriculture (DOA), which is responsible for fertilizer inspection, to strengthen its quality assurance service.

- **Agricultural extension.** Farmer access to agricultural extension services is limited, due to weak institutional capacity. The ratio of extension staff to farm family is low (nearly 1 to 585, where an extension worker covers 5,081 acres of cropland).⁷ In addition, the extension outreach was geared mostly toward paddy. There is an insufficient number of extension officers to transfer the appropriate knowledge and technologies to farmers for paddy and non-paddy crops and to provide the necessary feedback from the farmers to the agriculture research community. This is particularly true in Myanmar's more rural zones, as well as in areas that are considered conflict-affected. Not only will this limited extension coverage adversely affect the capacity of extension agents to support farmers to improve their farm productivity, but it will also affect capacity development of farmers on the downstream side, such as access to markets. The government is keen to revitalize the extension system by enhancing technical capacity and increasing efficiency and coverage, including through using digital technologies.
- **Agricultural research.** Agriculture research and development (R&D) is underfunded and fragmented, and it suffers from weak human resource capacity. The median share of agricultural growth and poverty reduction effects attributed to agricultural research are estimated to be 15 percent and 10 percent, respectively. Yet, agricultural research was the most underfunded function in the sector. In 2016/2017, Myanmar's total spending on agricultural research was a meagre 0.04 percent of agricultural GDP, which is 15 times less than the average in other Asian countries and 62 times less than the average in developed countries. Agricultural research is also fragmented across many agencies, without close collaboration among them. It suffers from significant gaps in human resources, which limits the capacity to translate agricultural research findings into improved farming practices. Largely due to limited resources, current efforts tend to explore technologies that mostly benefit larger-scale agriculture in the country's Central and Dry AEZs. Broadening this program, through decentralization efforts of agriculture related-research to other regions, in a targeted manner will considerably benefit smallholders in mountainous and coastal areas, including ethnic minority and conflict affected communities.

8. **Growth in the sector has been volatile due to the damaging impact of climate change and extreme weather events, such as El Niño.** In 2012, Myanmar was ranked the country most at-risk to climate shocks within Asia-Pacific, due to the wide range of hazards including, floods, cyclones, earthquakes, landslides, and tsunamis. In addition, it ranked second out of 187 countries in the Global Climate Risk Index during 1999-2018. In 2015/2016, for instance, the El Niño event and the accompanying drought in the central and dry areas resulted in a significant drop in production of key export crops such as sesame, beans and pulses. Agriculture growth recovery since the El Niño event has been slow. According to Myanmar's Climate Change Strategy and Action Plan (MCCSAP) 2016–2030, there will be a general increase in temperature, with more days of extreme heat and rainfall, and other extreme weather events like droughts, floods, and cyclones. These extreme weather events will result in high demand for irrigation water in pre- and post-monsoon periods. The MCCSAP, which builds on the Intended Nationally Determined Contribution (INDC 2015) and Myanmar's Climate-Smart Agriculture (CSA) Strategy (2015), indicates that the agriculture, fisheries and livestock sectors should adopt climate-resilient and environmentally

⁷ MOALI, 2017. Current Status of Agricultural Extension in Myanmar.



sound adaptation technologies and climate-smart management practices, supported by international and domestic finance. These include applying new technologies and modifying existing ones to enable the adoption of CSA practices. To conduct the necessary systematic research, Myanmar requires the support of technical experts, access to modern tools, and relevant apparatus.

9. **Myanmar’s agricultural policies that primarily focused on paddy have limited diversification in the sector, with undesired implications for nutrition.** According to the 2017 Public Expenditure Review, spending on irrigation (54 percent) and on extension services focused on rice, at the expense of other diverse and profitable crops. While the ADS envisages the sector’s shift toward diversification and away from rice concentration, rice still accounted for 35 percent of agricultural output and pulses/beans accounted for another 17 percent. Together, these crops constituted just over 67 percent of gross crop output in 2016, only slightly lower than their 72 percent share a decade earlier. Rice, pulses and beans occupy about 75 percent of the cultivated area in Myanmar, with rice occupying about 60 percent of the total sown acreage. Myanmar is experiencing some increased production of livestock products, fisheries, fruit, and various industrial crops (including tea, cotton, and sugarcane). Owing to increasing incomes in urban areas and the recent increase in agricultural diversification, around 15 percent of rural households are estimated to earn some income from producing horticultural products, thereby also facilitating more diverse diets. Investment in diversification also stands to benefit parts of the country which are, on average, more likely to be conflict-affected and where ethnic minority groups reside. These largely upland zones have received comparatively little technical and material support in the agricultural sector to-date.

10. **Besides the above farm level challenges, Myanmar’s agriculture has been characterized by limited value-addition primarily due to poor value chain facilities and services.** Exports of agricultural raw materials accounted for one third of Myanmar’s merchandise trade in 2017 (compared to just 13-14 percent in both Thailand and Vietnam). Although this share already represents a slight decline compared to previous years, it is considerably higher than in other countries in the region. Imports of agricultural raw materials represented a smaller share of overall merchandise imports, at 15 percent of the total in 2017, but this share was also among the highest observed in the region. These findings suggest that a lot of the value addition is happening outside the country. The primary factor limiting value addition is poor value chain infrastructure, which inhibited the establishment of forward and backward linkages within the agriculture and food system. Poor or costly drying infrastructure, inadequate storage, cold chain and processing facilities, and limited quality assurance services hinder farmers and agribusinesses to add value to their produce. For instance, studies reported an estimated post-harvest loss of 25–40 percent of total fresh horticulture produce due to factors such as (a) improper time of harvest; (b) inadequate post-harvest technologies and treatment, processing and storage facilities, impeding consistency in quality; and (c) high transport costs.⁸

11. **Myanmar’s agriculture exports have been constrained by a poor enabling environment, including restrictive regulatory systems and weak institutions as well as standards and infrastructure that are not on a par with international standards.** Myanmar launched the Good Agriculture Practice (GAP) Protocol and Guidelines program in 2017, with support from the International Finance Corporation (IFC). Yet, it has been adopted by less than 500 farmers.⁹ Lack of accredited laboratories, limited use of certified seeds, poor mapping

⁸ GAFSP (Global Agriculture and Food Security Program). 2016. Agribusiness Country Diagnostic - Myanmar.

⁹ IFC.2020. Implementing Good Agricultural Practices in Myanmar.



of soil fertility and inefficient fertilizer application are among the limiting factors to expand GAP adoption. Myanmar's regulatory agencies are currently severely resource constrained, lacking sufficient certified laboratories, testing equipment, and qualified operational personnel.¹⁰ Accreditation toward international standards, such as ISO 17025, as well as other sector specific accreditation schemes (for example, sugar and seeds testing), will help improve the enabling environment for Myanmar agriculture to become competitive in the global market and also ensure compliance with the highest sanitary and phyto-sanitary measures. There are only a few accredited 17025 laboratories in the country. It is important to address the constraints faced by these agencies, identify and develop trade strategies, and establish partnerships with the private sector to effectively support these strategies, while the government retains oversight and legal authority over their implementation.

12. **Myanmar has been gradually transitioning from a country with a centrally-planned economic system, in which production and marketing were controlled by the Government, to a country that encourages the private sector to be involved in production and value chain development.** At the same time, the continuous fragility, conflict, and violence have been detrimental to private sector participation in agricultural value chain development. Myanmar's economy is transforming, and there is a need to leverage the power of competition and create space for the private sector to generate inclusive economic opportunities, service delivery, and access to markets. However, the structural transformation remains incomplete and is impeded by a restrictive business climate and the high cost of doing business, especially for small and medium enterprises (SMEs). Myanmar is ranked 137th (of 160 countries) according to the 2018 World Bank's Logistics Performance Index, the lowest in the Association of Southeast Asian Nations (ASEAN). Linkages to global value chains are largely underdeveloped. About 40 percent of the population, mostly in rural areas, lacks basic access to all-season roads, limiting access to markets.

13. **Agricultural fragmentation and a predominance of poorly organized small-scale farmers are key challenges to create strong market linkages for farmers.** The sector is dominated by small scale farmers who are not well organized, limiting opportunities to achieve the economies of scale needed for the development of SME agribusinesses. While they comprise three quarters of the farm households in Myanmar, smallholders hold just 27 percent of the net sown area in the country.¹¹ These farmers are less attractive for private input suppliers and output buyers, because the average costs of input provision or aggregating outputs to/from these farmers are quite high. This also implies costly service delivery. They are therefore likely to be excluded from forward and backward linkages in the agricultural value chain development, such as from contract-farming schemes. Unless farmers receive adequate capacity building on establishing groups and cooperatives, individual farmers will have significant challenges and limited bargaining power to play key roles in value chain development, especially in creating strong market linkages with buyers. Myanmar's Fruit, Flower and Vegetable Producer and Exporter Association (MFFVPEA) has been organizing its members (farmers, traders, and other value chain actors) into 'clusters' to improve product quality and (export) market linkages for some value chains. Consultations with representatives of the MFFVPEA indicates that the cluster approach has been vital in enhancing coordination, cooperation and networking among farmers and other value chain actors such as crop buyers, wholesalers,

¹⁰ OECD. 2015. Development Pathways Multi-Dimensional Review of Myanmar Volume 2. In-depth Analysis and Recommendations.

¹¹ FAO. 2016. Social Inclusion and Gender.



distributors, exporter and suppliers of support services. Some of the relatively successful clusters include mango clusters and small farmer schemes such as the potato groups and farmer markets.

14. **There remains a gender gap in productivity and access to knowledge and technologies among rural households.** The recent study shows that the average production per farm for female-headed households is over 10 percent lower than male headed households (6.43 tons for male-headed farms and 5.82 tons for female-headed farms).¹² This productivity differential is primarily a result of gaps in access to improved inputs and seeds, extension services, and agricultural land. The same study also showed that female-headed households were less educated than male headed household. On average, 19 percent of men did not have any formal education compared to 30 percent of women. This may limit women farmers' ability to apply extension service recommendations and some agricultural technologies that require some level of literacy.

15. **Myanmar is well positioned to leverage the power of digital technologies to enhance the coverage and efficiency of its agriculture extension system to reach out to small-scale farmers, women, and other vulnerable population groups (VPGs), including those in the remote and conflict affected states and regions where the access to agriculture services is constrained.** In addition to the near-universal cellphone coverage, Myanmar has one of the highest smartphone penetration rates (80 percent) in developing countries enabling extensive use of smartphones. Agricultural extension workers could use digital applications that could easily run on their cellphones to more efficiently serve a greater number of farmers. Extension services, such as soil testing geo-tagged to the farmer location and cell number, combined with weather information could help provide, customized information about the appropriate use of fertilizers. Market information can easily be collected, aggregated, analyzed, and then disseminated to farmers using text and Viber messages. Applications, such as a disease identification app that use a smartphone camera and artificial intelligence (AI) technology can be made more available with a relatively small investment. Based on data several women did not possess the skills or knowledge to begin using data services (due to a lack of experience with technology), and usually relied on others (primarily men, either relatives or in phone shops) for instruction.¹³ Due attention would be needed for digital inclusion, as women are 29 percent less likely to own cellphones than men, suggesting that women have less access to agricultural technologies and information. As the rural communities in Myanmar continue to move toward using more modern communications channels, requiring mobile phone or internet, there is a risk that women find themselves excluded. Data indeed show that there is a gender gap in access to information and communications technology, as women in Myanmar are 10 percentage points less likely than men to report mobile phone or internet usage.¹⁴

16. **The sectoral transformation will require a shift away from the traditional food self-sufficiency toward resilient, inclusive, competitive, and environmentally sustainable (RICE) agriculture and food system that takes advantage of Myanmar's diverse farming systems with a greater private sector engagement.** With the COVID-19 pandemic situation, it has become even more important and urgent to strengthening institutional capacities to manage an emerging array of risks, including those related to nutrition, environment, economic inclusion, and conflict is needed. Myanmar has the potential to expand its range of agricultural export products and destinations.

¹² World Bank. 2019. Myanmar Rice and Pulses: Farm Production Economics and Value Chain Dynamics.

¹³ GSMA and LIRNEasia. 2015. Mobile phones, internet, and gender in Myanmar.

¹⁴ World Bank. 2018. "Myanmar Living Conditions Survey: Key Indicators Report", June 2018, p. 92.



It has had some success in doing so. Myanmar's National Export Strategy (NES) has identified several priority sectors, including agricultural subsectors, through which it will strengthen sustainable inclusive export-led growth.¹⁵ Building on its NES, Myanmar could identify several candidates for further value chain development, in particular: fruits and vegetables, sugarcane, tea, cotton, and livestock, which can integrate smallholders to markets for high value products. Investments especially in the horticulture and livestock sectors can promote inclusive growth, as women are particularly active in these sectors while men dominate the trading of paddy, pulses and oilseeds.¹⁶

C. Relevance to Higher Level Objectives

17. **Leveraging agriculture for economic growth and rural poverty reduction is a top government priority, and this is recognized in the ADS (2018/2019-2022/2023).** The strategy identified three priority areas requiring support: (i) Governance, (ii) Productivity, and (iii) Competitiveness. Under the Governance Pillar, the Ministry of Agriculture, Livestock, and Irrigation (MOALI) emphasized institutional strengthening to enhance the “capacity of government to design, formulate and implement policies and discharge functions”. Under the Productivity Pillar, the ADS focuses on (i) effective agricultural research and extension; (ii) efficient use of agricultural inputs; (iii) sustainable practices and use of natural resources; and (iv) increased resilience to climate change and disasters. Under the Competitiveness Pillar, the ADS points to the “integration of farmers and agro-enterprises in Myanmar into effective value chains to promote competitiveness in regional and global markets via transforming agriculture from subsistence farming to profitable commercialization connected to the national and international markets.” The proposed project is expected to contribute primarily to Pillars II and III and secondarily to Pillar I. The proposed project will also contribute to achieving Myanmar's INDC goals. The Project will enhance research capacity for improved adoption of climate-resilient and environmentally sound adaptation technologies and practices, and to boost agricultural product quality, safety and sustainability.

18. **The MSDP 2018–2030, which is the government's master plan for development, recognized the agriculture sector as a priority and sets a framework for its sustainable growth.** The MSDP recognizes the country's reliance on the agriculture sector and the sector's relevance for poverty reduction. In particular, the MSDP views agriculture as playing a central role in two of its pillars: Pillar 2: *Prosperity and Partnership* whereby the focus is to create an enabling environment conducive to achieving a diverse and productive economy through agriculture and rural development for rural poverty reduction; and Pillar 3: *People and Planet* whereby environmental sustainability of agriculture is emphasized. MSDP's strategy (3.1) for *Creating a diverse and productive economy with rural development and agriculture as the foundation* stresses addressing Myanmar's low productivity, supporting value chain development, increasing private sector participation and eventually boosting agricultural competitiveness. The proposed project will directly contribute to the achievement of MSDP's objectives by supporting value chain development and agricultural competitiveness.

19. **The proposed project is aligned with the current World Bank Country Partnership Framework (CPF) and the draft 2020-2023.**¹⁷ Rural poverty reduction is outlined as a focus area with several objectives, including increasing productivity in farming and agribusiness, and addressing critical infrastructure and service gaps for the

¹⁵ The Republic of Union of Myanmar National Export Strategy, Ministry of Commerce, 2015.

¹⁶ A Strategic Agricultural Sector and Food Security Diagnostic for Myanmar, 2014

¹⁷ The World Bank. 2019. Country Partnership Framework for FY20-FY23. IDA/ IFC/ MIGA.



rural poor. The CPF continues its support for rural poverty reduction through rural growth. The proposed project also contributes to all three focus areas of the CPF 2020-2023. The Project aims to increase private sector participation in agricultural value chains, both upstream and downstream of the value chain. This is aligned with the second focus area of the CPF: *Fostering responsible private sector led growth and inclusive economic opportunities*. The proposed project also supports agricultural support services and improved farming technologies that will enhance farmers' resilience to climatic risks, which is the third focus area of in the CPF: *Enhancing climate and disaster resilience and sustainable natural resource and environmental management*. The project will promote inclusion by organizing small farmers into groups to facilitate better access to services and markets, including expanding the coverage of extension services and farmer trainings to marginal and vulnerable population groups, which is in line with the first focus area of the CPF FY2020-2023: *Building human capital and fostering peaceful communities*.

20. **The proposed Project is aligned with the World Bank Group's corporate approach for Maximizing Finance for Development (MFD).** The ADS (Pillar III) of the government of Myanmar (GoM) also recognizes the importance of crowding-in private sector financing into the agriculture sector, particularly for value chain development and export promotion. The Project acknowledges the key role the private sector could play in developing the agriculture sector. It supports several activities to both remove binding constraints to and facilitate value chain linkages between farmers and rural entrepreneurs and off-takers through public private partnership platforms. For enabling MFD, the investments include the construction/upgrading of existing value chain infrastructures and facilities as well as production collection centers, drying facilities, post-harvest storage structures, cold chain facilities, processing facilities, and some of the government-owned facilities requiring upgrades. Areas where the engagement of the private sector has been low or non-existent are research, demonstration, extension services, input supply improvement, and international standard laboratories. These areas could greatly benefit from the promotion of private sector participation. As advocated by the ADS, the GoM is committed to improving the enabling environment for businesses and service delivery to value chain actors, while also promoting commercially-oriented approaches. Progress in improving these value chain linkages would contribute to increased investment by mid-and downstream value chain actors, increased exports, and in larger numbers of co-financing arrangements/fee-based businesses in laboratories management in the country.

21. **The project will contribute to improved nutrition, which is a key priority for the GoM.** The project will enhance productivity and promote diversified agriculture production by supporting non-paddy crops. The project will strengthen the capacity of extension officers to improve household knowledge about diet diversity and nutrition. The Project will support the enhancement of the nutritional content of crops (for example, research on and dissemination of biofortified crops) through bio-technology. These activities will contribute to improved nutritional outcomes in making available nutrient-rich, diverse and safe foods that are part of a high-quality diet. Better nutrition will contribute to improving the human capital of Myanmar in the long run. The project will coordinate with the on-going nutrition program to ensure its effectiveness (European Union's budget support to Nutrition and Food security sector; World Bank's Maternal and Child Cash Transfers for Improved Nutrition Project (P164129)).



I. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

22. The Project Development Objective (PDO) is to increase agricultural productivity and diversification and to enhance market access for selected value chains in the Project area.

PDO Level Indicators

23. The key PDO-level results indicators include the following:
- Increased yield of the selected value chain commodities¹⁸ (percent)
 - Increased area of non-paddy crops (ha)
 - Increased sales of targeted farmers participating in value chain clusters (percent)
 - Farmers reached with agricultural assets or services (number, disaggregated by gender and by vulnerable population group).

B. Project Components

24. The project comprises of three components and has applied the **Inclusion and Peace Lens** (IPL) across components. The IPL is a series of questions aimed at ensuring projects are inclusive, do-no-harm in conflict affected areas, and support peacebuilding where possible. The project aims at 'economic inclusion' of smallholder farmers (owning less than 5 acres), including small-scale cattle keepers, with a strong focus on Vulnerable Population Groups (VPGs) and women, who are more likely to be excluded from the agriculture related interventions. Further, as response to the COVID-19 pandemic, the project will explore to support the recovery of the agriculture sector through supporting farmers for timely access to inputs; developing digital extension services to raise awareness on COVID-19 and food safety; strengthening digital agriculture technology, including on-line transactions for inputs, value chain support, including market facilities, clustering farmers to link them with markets.

25. **Component 1: Agriculture Productivity Enhancement and Diversification (US\$ 47.8 million).** This component focuses on improving agricultural productivity and diversification at the farm level by: (a) strengthening the agricultural Research & Development (R&D) system, (b) improving the quality and utilization of agricultural inputs, and (c) strengthening agricultural extension services, including through the use of digital technologies. It aims to enhance the knowledge and access to technologies by farmers and agri-enterprises to make Myanmar's agriculture more productive and diversified, responsive to market demands, and more climate-resilient.

26. **Subcomponent 1.a: Strengthening Agricultural Research and Development System.** The project will strengthen the national R & D system to make it more responsive to farmers' needs, to market demands, and to emerging needs in terms of reducing climate vulnerabilities and improving climate resilience. The project will support the decentralization and upgrading of the existing regional R&D facilities under the Department of

¹⁸ The preliminarily selected value chains include fruits, tea, cotton, sugarcane, and livestock (cattle) value chains.



Agriculture Research (DAR) of MOALI, support them to adopt farmers participatory approach, and build the technical capacity of DAR staff engaged in R&D to address emerging challenges such as climate resilience (especially of non-paddy crops), and crop diversification (to marketable crops).

27. The preliminary list of townships has been identified during preparation in accordance with the presence of existing regional research centers and farms which require upgrading for providing better quality of research in the local area. The preliminary list includes existing research centers/farms in those townships with high levels of monetary and non-monetary poverty (as captured by the Multi-Dimensional Disadvantage Index-MDI) and in those townships with high concentration of ethnic minorities especially in the Hills and Mountains Agro Ecological Zones (AEZs). It also includes the existing research centers/farms in in the conflict affected townships, such as Kayaukume, Kentung and Lashio (Shan), Mohnyin (Kachin), Loikaw (Kayah), and Dawei (Tanintharyi). These facilities are existing government facilities, and their catchment area are the vicinity of these facilities, and are not expected to be the subject of contention or contest. As analyzed through IPL, due diligence shall be made during first two years of implementation prior to the final selection of these TSs, including conflict analysis and consultation with the full range of stakeholders, including ethnic minority groups, ethnic service providers and, where feasible and in-line with due diligence responsibilities, EAOs. The list of TSs and MOALI facilities will be kept updated in the Project Implementation Manual (PIM).

28. *Upgrading regional research facilities.* The project will facilitate decentralization of agricultural research to the regions and states by upgrading the existing regional research centers and regional research farms under DAR. The decentralization process is expected to effectively respond to localized needs for agricultural technologies and knowledge, and to promote better coordination and linkages between the agriculture extension services and the agricultural research system at regional and township levels.

29. *Strengthening research capacity for CSA and marketable varieties.* The project will strengthen the research capacity of the staff of the selected regional research centers and regional research farms by upgrading their knowledge on climate resilient varieties and by supporting researches on new climate smart technologies, climate resilient varieties/seeds, and marketable varieties of crops (particularly non-paddy). These include fruits, vegetables, and sugarcane, which will be promoted in the selected areas under Component 2 (value chain development).

30. *Adopting farmers participatory research.* The project will support carrying out capacity building activities to adopt farmers' participatory research at the supported regional research centers and research farms. A rigorous communication will be conducted through existing network such as farmers TV, village level farmers groups and lead farmers, as well as TS level extension workers, on participatory research opportunities. The communication campaign will reach out to smallholder farmers (owning less than five acres of land) and Vulnerable Population Groups (VPGs), which are defined as the segment of population that include ethnic and religious minorities, economically/socially disadvantaged people (like the landless), and farmers in conflict-affected, remote, and geographically disadvantaged areas. ethnic minorities, economically/socially disadvantaged people (like the landless), and farmers in conflict affected areas and in the remote and geographically disadvantaged area, as well as female-headed households and women farmers. Participatory research is expected to improve responsiveness to farmers' localized demands and needs through direct discussions, consultations and testing on locally adaptable marketable varieties, climate resilient varieties and seeds as well as CSA technologies.



31. ***Subcomponent 1.b: Improving the Quality and Utilization of Agricultural Inputs.*** The project will provide support for increasing the market supply of certified seed varieties and quality fertilizers and will promote a more sustainable, climate resilient, and cost-effective use of fertilizers among farmers. The specific activities include (a) enhancing farmers' knowledge on appropriate fertilizer use, (ii) strengthening the inspection system for marketed fertilizer, and (iii) strengthening the seed certification systems. Improving the farmers access to inputs is considered to be one of priorities of COVID-19 response in the agriculture sector.

32. ***Strengthening farmers knowledge on area-specific fertilizer utilization.*** This project will support the development of Myanmar's area-specific fertilizer recommendation system, which will build on the analytical work and lessons from Wageningen University and Research's technical support to national governments on the topic. The current nation-wide single standard for fertilizer applications will be replaced by area-, soil-, and crop-specific fertilization recommendations, which will result in more tailored fertilizer recommendations to be specifically adapted to the respective areas, reducing fertilizer use and GHG emissions. This activity will be implemented in the selected districts in five regions (Mandalay, Magway, Bago, Ayeyarwady, and Sagaing) and will specifically target women, smallholder farmers, marginal and landless farmers, and ethnic minorities. A rigorous communication will be conducted through existing network such as farmers TV, village level farmers groups and lead farmers, as well as TS level extension workers, in these targeted regions, to reach out to smallholder farmers, ethnic minorities, economically/socially disadvantaged people (like the landless), as well as female-headed households and women farmers. To ensure a broad and inclusive coverage, the project will support the development of a digital platform that will be accessible to end users both through a smartphone app and an online tool.

33. ***Strengthening fertilizer inspection capacity.*** The project will build a new fertilizer inspection laboratory which is under Land Use Division (LUD) of MOALI at the border area with China (Muse Township, Shan State) and will strengthen the concerned staff's analytical and inspection capacity on marketed fertilizers. Myanmar imports over 80 percent of its fertilizer, mostly from China, which enters the country mainly through Muse, which is one of the conflict-affected townships. The laboratory will be built in the existing MoALI compound, and are not expected to be the subject of contention or contest. It is expected to enhance the market supply of quality fertilizers as a result of inspection, and thereby support MoALI to enforce the enforcement of the Fertilizers Law of 2002 (as amended in 2015), which directed the market supply of inspected fertilizers.

34. ***Strengthening seed certification and quality control system.*** The project will upgrade the seed testing laboratories in Pinyinana township in Naypyitaw(NPT), Hmawbi township (Yangon), Maharaungmyay township (Mandalay), who will inspect and certify the quality of seeds produced in the country both for local use and for exports. The project will support these laboratories to obtain International Seed Quality Assurance accreditation, under the International Association of Seeds Testing (ISTA). Accreditation with ISTA would will allow them to test the quality of imported seeds. Further, the project will upgrade the seed processing units in the selected seed testing facilities in Ayeyarwady, Shan, and Magway, where private sector seed processors are not present.

35. ***Subcomponent 1.c: Strengthening Agriculture Extension Services through Digital Technologies.*** The project will support developing digital extension package and expand its outreach, upgrading the training facilities to be digitally enabled, building capacity of extension workers, and conducting specific outreach measures to



benefit small farmers and VPGs. This subcomponent will have a key role in economic inclusion and COVID-19 response.

36. *Developing digital content of extension services and dissemination.* The project will support the development of digital content of extension packages on-farm management techniques, GAP, post-harvest technologies, CSA technologies and practice, improved varieties, sustainable use of agriculture inputs, and market information with aggregation and analysis. The content will also include the adoption and knowledge sharing of climate resilient farming practices such as use of heat and drought resistant varieties, sustainable use of agriculture inputs such as reduced fertilizer use, reduced tillage to improve soil carbon content, use of agricultural waste (bagasse, rice husks, etc.), rangeland management, water management techniques to increase water efficiency use, and provide farmers with information on mechanisms to reduce their exposure to climate change induced natural disasters such as weather insurance. In addition, the content will include precautionary measures and proper handling of pesticides, risks related to pesticide exposure, which will specifically benefit landless agricultural laborers. Considering the risks to farmers of unexploded ordnances (UXOs) and landmines in the conflict affected areas, the content will also include information on landmine and UXO risks related to agricultural activities. Finally, in view of the country's challenges in addressing malnutrition and diet diversity, the content will also include advice on these topics, to specifically benefit women. Further, extension message may explore to include COVID-19 response and food safety issues.

37. Digital content will include the use of short films and visual information to avoid exclusion of illiterate population and also to reach more women. Evidence from Digital Green indicated that women farmers react more effectively to visual contents and short films, taken by peer farmers through pico-projector, rather than conventional extension services¹⁹.

38. Furthermore, the project will support the upgrading of the ICT facilities in the regional extension training centers in the selected 25 townships²⁰ in NPT, Yangon, Mandalay, Magway, and Bago Regions so that the current extension services become more digitally enabled. The project will also support capacity building activities of extension workers in these TSs on digital technologies.

39. *Promoting Inclusive Demonstration and Extension Outreach.* The project will support the dissemination of the digital extension package through cellphones/smart phone, TV (that is, Farmers channel), Facebook, text and Viber messages (which are commonly used in Myanmar) as well as the extension network, the Agri-Business News Journal and other farmer journals to reach a wide range of producers and farmers in the project area. A communication campaign will be developed to reach out to smallholder farmers and VPGs. To facilitate access by ethnic minorities, the digital content will be translated to local languages where appropriate.

40. Further, the project will support the regional research centers/farms (under Component 1.a) to hold on-farm demonstrations, and the selected 25 TS extension offices to hold open-door public extension camps on an periodic basis, to ensure to reach out to those who cannot access TV or the Internet, or live outside of areas where extension workers operate, particularly in the remote areas with high concentration of ethnic minorities. In some

¹⁹ Evidence from Digital Classroom, Digital Green: <https://www.digitalgreen.org/blogs/digital-classrooms-for-farmers/>

²⁰ The preliminary list of 25 TSs include Mahlaing, Myingyan, Thaungtha, Kyaukpadaung, Pyawbwe (Mandalay); Sagaing: Ayadaw, Kani,Tabayin, Kanbalu, Pinlebu; Magwe: Gangaw, Seikphyu, Yenangyaung; Bago: Taungoo, Kyauktada, Pyay, Tharawaddy, Nattalin



townships, periodic camps could be most effective when static and recurring in a designated town; in others, a mobile and/or rotating arrangement that targets several towns may be more appropriate.

41. Finally, the project adopts a conflict sensitive approach, as the preliminary list of TSs include 12 conflict-affected townships, where there are pockets of contested and fully EAO-controlled areas (usually the more remote, rural communities). To ensure the “inclusion” of farmers in such areas, the project will support “knowledge transfer” from government research farms and value chain research facilities within the target township (and without any physical interventions/activities of the project in contested areas) through (i) township on-farm demonstration/extension camps to share information; (ii) Training of Trainers (ToT) (also held in existing government facilities) and (iii) Digital extension messages through exiting network. These knowledge transfer will be facilitated through ethnic service providers and/or community-based organization representatives that are known to be trusted by the non-government stakeholders in the pockets of contested and fully EAO-controlled areas. The proposed TOT will be either facilitated by the TS extension works who are trained on the conflict sensitive approach or the farm advisers working in community-based organizations (CBOs), civil society organizations (CSOs), and nongovernmental organizations (NGOs). The details will be determined during the initial years of consultation with key stakeholders, and will be specific and variant depending on the situation in each TS.

42. **Component 2: Value Chain Development (US\$ 32.7 million).** The focus of this component is to enhance value chain development and to expand market access of selected value chains by (a) financing value chain facilities and services; (b) supporting value chain clusters (VCCs) to strengthen market linkages; and (c) financing value chain related laboratories to meet international standard. It aims to enhance value chain actors’ access to technology and value chain services to improve product quality. The project will help lay the foundation for fostering public-private partnerships with locally relevant and credible businesses, expanding opportunities for capturing high-value markets, enhancing Myanmar’s agriculture and agribusiness to better compete with imports and in the international markets.

43. **Sub-component 2.a: Supporting Value Addition and Market Access.** The project will support activities that will contribute to increased value addition of the selected value chains and will expand farmers’ access to markets by creating VCCs and promoting partnerships between these clusters and the private sector (buyers).

44. MOALI has identified a preliminary list of value chains, which include, fruit, tea, cotton, sugarcane and (cattle) meat value chains, aiming primarily to promote international and regional exports and also import substitution (in the case of sugarcane). The selection of these value chains was based on multiple criteria, including their contribution to diversification away from paddy (and contribute to enhancing nutrition); value addition opportunities; suitability in the selected AEZs; domestic, regional, and international market demand trends; and (to some extent) their role in promoting inclusion. For instance, the fruit and meat value chains create huge opportunities for all these three aspects. With increasing demand from urban centers both domestically and in the regional market, the fruit and meat subsectors have a large value addition potential in the country.²¹ Women are heavily involved in the fruit sectors. Cattle value chain activities will also benefit landless farmers. Myanmar is

²¹ Export from the livestock sector increased by about 36 percent between 2011/2012 and 2017/18. In May 2019, the GoM has relaxed some of the livestock trade policies and this has increased demand from neighboring countries especially from the China market.



targeting high end tea markets, including in Europe and the United States, for its specialty tea.²² Improving tea quality and standards will be critical to comply with the requirements of these markets and to reap premium price benefits. Tea production and value addition are predominantly occupied by ethnic minorities such as Pa-O and Palaung in Shan state, and other minorities in Chin and Kachin States, and some of the targeted TSs are conflict-affected. Tea is labor-intensive value chain, hence landless agricultural laborers will gain access to job opportunities by the establishment of demonstration farm in tea growing areas. Cotton, which is one of Myanmar's national strategic export crops and one of the few crops where genetic modification is allowed in the country, has experienced a rise in price and demand, primarily from the China market, where half of Myanmar's cotton is exported.²³ The sugarcane value chain, on the other hand, directly supports more than half a million farmers and the livelihood of many others who are casual workers as harvesters and in sugar mills.

45. The preliminary list of the selected value chains will be further reviewed during the initial years of implementation, based on the further consultations with private sectors, diagnostics, market demands and MOALI's strategic priorities. The final selection of the value chain will be specified in the PIM.

46. *Value chain facility and research.* The project will support investments that are important to increase value addition of selected value chains, which include value chain research; identification of major climate risks and their impacts on the value chains; construction/upgrading and installation of climate resilient and energy efficient value chain facilities such as cold storage and processing facilities, and demonstration farms and training centers, and artificial insemination services. The investments will also include capacity building and awareness raising on post-harvest technologies, cold storage management, cattle breeding (including artificial insemination services), and other technologies and knowledge relevant to value addition, as well as climate smart value chains through identification of major climate risks and their impacts on the selected value chains; at the input and production stage, adaptation strategies for supporting climate-smart value chains. These investments will enhance competitiveness and value addition by, for instance, extending the shelf life of the selected fruit products.

47. More specifically, these activities include (a) support to research on quality-oriented cotton and silk in Mandalay; (b) financing post-harvest (cold storage) facilities, demonstration farms for improving fruit quality, and research on post-harvest technologies at six horticulture research farms;²⁴ (c) construction and installation of energy efficient processing and packaging facilities for different tea varieties. This activity also includes research for high quality tea production and processing technology;²⁵ (d) promotion of artificial insemination service and upgrading natural breeding units in multiple townships located in NPT, Sagaing, Magwe, Mandalay, Yangon, and Bago; and (e) upgrading sugarcane research farms in NPT, Bago, and Magwe to promote sugarcane varietal improvement for better quality and climate resilience.

²² Myanmar can receive a higher price from these markets, with current reports showing prices to be higher by 25 percent.

²³ The value of Myanmar's cotton export was three times more between 2013/2014 and 2016/2017 (reaching US\$10 million). This trend is expected to grow even faster because of the trade issues between China and the United States where China sources most of its domestic cotton demand.

²⁴ These research farms (townships) include the Doe Kwin farm (Pyinoolwin), Pinlaung farm (Pinlaung), Heho farm (Kalaw), Namlatt farm (Taunggyi), Myitkyina farm (Myitkyina), and Kyawboat farm (Hakha).

²⁵ This activity will be implemented at six townships in the states of Shan, Chin, and Kachin.



48. *Expanding market access.* The project will establish and support VCCs and create market linkages by facilitating regular public-private engagement platforms. The project will explore to support farmers through VCCs who have lost markets or reduced transactions as result of COVID-19.

49. First, the project will support the formation of VCCs of farmers in the acceptable proximity to these value addition facilities to be supported by the project. Among those locations of value chain facilities, priority will be given to townships with higher poverty counts as per Myanmar's Multi-Dimensional Disadvantage Index (MDI). Within the selected TSs, formation of these clusters will be facilitated by the planning and extension divisions of the Department of Agriculture (DoA), MOALI with an aim to particularly target smallholders, women, and VPGs. While farmers will participate based on self-selection, the project will have an outreach to attract VPGs and will ensure participation is fair, inclusive and transparent.²⁶ In addition, the process of formation of VCCs, women lead farmers (WLF) will be identified, who will serve as facilitators between the extension workers and women farmers participating in VCCs.²⁷

50. Secondly, these clusters will be supported through a range of technical advisory services and capacity building to enable them to achieve measurable targets in terms of improved product/service specifications (such as quality, quantity, and delivery conditions) through the value addition facilities to be supported by the project. The selected WLFs will demonstrate good agricultural and business practices, new technologies, and act as mentors to a group of women farmers who participate in the VCCs.

51. Finally, these clusters will be linked with processors, buyers, marketing entrepreneurs and financial institutions through the public-private sector partnership platforms to be established by the project. The WLFs are expected to participate the platform to represent women farmers in the VCCs to link women VCC farmers with buyers, input suppliers, credit, through the proposed platform. Through the regular platforms, VCCs will enhance their knowledge and familiarity with the required specification of their agriculture products to gain the premium price. Buyers and processors will know better about their potential source of inputs and agriculture products.

52. While the ADS recognizes the importance of private sector participation, MoALI has less experiences in engaging private sector in value chain related investments and financial access. Several mechanisms will be applied to attract midstream and downstream value chain actors (processors and buyers) to the proposed platforms and to be linked with the VCCs. During the first year of implementation, the project will organize consultation workshops with the private sector in the selected townships to identify potential private sector partners. During the consultation, the project will leverage existing IFC clients to engage private sector players, particularly agro-enterprises. The project will also work in close collaboration with the private sector associations, including MFFVPEA that has extensive experience in forming the clusters and facilitating linkages with buyers. Considering that access to rural/agricultural finance is low in Myanmar compared to its regional peers²⁸, the project will facilitate access to finance to farmers indirectly by encouraging them to join the regular platform. It is expected that the formation and operation of VCCs with value addition technical support from the project can make them relatively more bankable. The project will link with the on-going World Bank financed Financial Sector

²⁶ The selection criteria will be laid out in the PIM.

²⁷ WLF model will build on the regional experiences initiated by MEDA globally with successes of engaging women farmers. The model was tested in Myanmar since 2019 in a limited scale.

²⁸ Enabling Business for Agriculture Myanmar Country Profile. World Bank, 2019.



Development Project (FSDP, P154389), which supports technical capacity building of Agriculture Development Bank. Building on lessons of the recent pilot project of Digital Credit for Smallholders through Korea-World Bank Partnership Facility, the project will also explore to support the VCCs with the existing micro-finance institutions in the selected TSs. Further the buyers and processors participating the platform may be willing to extend credit to value chains during the planting season provided the latter agree to supply quality outputs at harvest (contract-farming).

53. **Sub-component 2.b: International Standard Certification.** The project will support investments to improve laboratory infrastructure, equipment, and human capacity needed to ensure international standard certification (such as ISO 17025 and other applicable international standards). These investments are intended to overcome market failures that currently limit exports of Myanmar's crops and animal products in markets with high quality standards. This will be fostered through the research on new crop varieties or enhancement of local varieties (which are activities under component 1), and by increasing the areas and crops covered by GAP. This enables the national GAP standard to align with the ASEAN GAP (and global GAP), thereby enhancing export opportunities for certified producers in the medium and long run.

54. **Laboratories with ISO standard.** The project will support upgrading and establishment of new laboratories that will be critical to achieve international quality accreditation and GAP standards. These facilities will consider climate resilience and energy efficiency/renewable energy solutions. More specifically, the project will support the following laboratories.

- The Plant Biotechnology Laboratory in Yangon will be upgraded to be able to develop climate resilient crop varieties and to improve food safety and nutrition through cloning and genetic crossing. The project will also install accredited biosafety laboratory facility to develop and test crops genetically modified through DNA technologies, particularly the cotton value chain. The project will also upgrade laboratory facilities that will support promotion of geographic indication (GI) products, such as mango and Pawan San rice, which are local special varieties known in Myanmar. The project will support the laboratory to meet requirements for ISO 17025 accreditation.
- The project will support the upgrading of the Land Use Laboratory in Yangon and finance the construction of a new one in NPT. The project will support these laboratories to meet the requirements for accreditation under ISO 17025, so that they facilitate and support implementation of global GAP by farmers. This support will upgrade the laboratory facilities to (a) analyse soil, plant, and irrigation water quality to detect and prevent contamination and (b) provide services to fertilizer importers and dealers by issuing analysis certification. These services are important to upgrade the Myanmar GAP, which is not recognized in export destination countries, to global (or ASEAN) GAP.
- The Sugarcane Quality National Reference Laboratory in NPT will be upgraded to meet the requirements for an accreditation under the International Commission for Uniform Methods in Sugar Analysis scheme. This will enable the country to improve the quality of sugarcane and to develop new varieties and possibly reduce sugar imports.

55. **Capacity building.** The project will support a comprehensive capacity building of staff of these laboratories, which will be accompanied by supporting the development of business plans, safeguard measures



and a human resource plan. Several positions of most laboratories are occupied by women. For instance, about 65-73 percent of DoA staff working for the land use and sugar cane divisions are women. Hence, women staff are specifically targeted for capacity building/training opportunities. Prior to the investment, a comprehensive business assessment and skill set analysis, as well as relevant policy compliance reviews will be conducted. Each laboratory will develop a plan for regular consultation with the private sector to strengthen relationships, establish collaboration when appropriate, and identify priority areas for driving skills development and investments. Consultations with the Ministry of Commerce (MoC) are also expected to be reinforced, to enhance decision-making processes and actionable plans by MOALI management. This will be accompanied by a safeguard plan to ensure appropriate safeguard measures, particularly on waste management, are undertaken. The laboratories will also have a human resource development plan, which will identify skills gaps and other learning needs, to strengthen the capacity of the entire MOALI's technical personnel, including for higher education and hands-on skills in a harmonized manner, such as dedicated training sessions delivered by a third party and consultants with recognized capacity in the relevant fields of interest. Specific programs will be developed to achieve more efficient practices, to best leverage the increased technical capabilities, and foster staff motivations to achieve them.

56. **Component 3: Project Management, Coordination, and Monitoring & Evaluation (US\$ 4.5 million).** This component will support carrying out of the day-to-day project management activities such as project administration and implementation; procurement; financial management (FM) (including internal and external auditing); social and environmental safeguards (including peace and inclusion filters, marginalized/vulnerable population groups, and gender); and monitoring and evaluation (M&E, including the baseline, midline and final impact assessment surveys).

E. Implementation

57. MOALI will be the implementing agency for the Project. MOALI is responsible for the development and management of agricultural support services, livestock sector, and irrigation and water management. With a staff of above 70,000, it is one of the largest ministries and covers a wide range of activities, including agricultural research and extension services, agricultural inputs, mechanization, and irrigation and water management. DOA is responsible for agricultural extension, seed production, soil management, plant protection, and bio-technology. It receives about less than 10 percent of the MOALI budget. The new technology development is responsibility of DAR. It has more than a dozen satellite farms, 7 crop research centers, and close to a thousand staff members.

58. The project will be overseen at the Union level in NPT by the National Project Steering Committee (NPSC). The main functions of the NPSC include providing policy and strategic guidance to project implementation and resolving any issues of a policy nature that might arise during project execution. It is envisaged that NPSC will involve other relevant ministries, including the MoC, which has a mandate for export promotion (Department of Trade) and the Ministry of Education (MoE), which has a mandate to establish National Quality Infrastructure in Standardization, Accreditation and Metrology (National Standards and Quality Department).

59. The Project Management Unit (PMU) will be established within DOA, which is the focal department for the project and will have the mandate to implement the project. The PMU will be managed under the direction of the project director. The role of the project director is to ensure that the project implementation is closely



aligned with the strategic plans of MOALI, coordinate the work between various departments, and ensure that the project receives proper attention of the MOALI senior management to resolve urgent implementation issues. The day-to-day operation of the PMU will be managed by a project manager, who will be recruited through a competitive external recruitment process. The PMU staff would include both seconded MOALI staff and consultants: FM specialist; national procurement specialist; M&E specialist; safeguard specialist; and technical support staff, depending on the evolving needs. The PMU will ensure that annual work plans and budget are prepared, budgeted, and implemented on time and that management of project funds is in line with the provisions of the project's eligibility guidelines. The PMU will be responsible for the project FM, procurement, and safeguards functions together with DOA Financial and Procurement Divisions who second their staff to the PMU

60. Implementation of the project activities will be carried out by three technical departments (DOA, DAR, and Livestock Breeding and Veterinary Department [LBVD]) through their central-, regional-, district-, and township-level structures. DOA will be the focal department for the overall project, DAR will lead subcomponent 1.a on R&D, and LBVD will lead livestock-related activities of subcomponent 2.a. A Project Working Committee (PWC) will be established to support effective project implementation and to overcome project constraints, review project work plans and project progress, resolve implementation bottlenecks, and provide guidance on any other matters as requested by the PMU.

61. The Project will be governed at the township level by the township ACCs. The ACCs are township level structural coordination bodies and have a broad-spectrum representation of township level stakeholders. It covers representatives of all departments of MOALI, including Myanmar Agricultural Development Bank, as well as Hluttaw (Parliament) members. The ACCs are chaired by the General Administration Office under Ministry of the Office of the Union Government. The main function of the ACC under the project is to provide a platform for joint (MOALI-farmers-private sector) planning and monitoring of project activities in the project areas. It would have to ensure coordination of project activities between implementing departments, participate in the bottom-up formulation of the annual work plans, review implementation progress, and provide guidance to field staff. Under the project, it is envisaged to involve private sector representatives, associations (livestock, seed, and crops), agricultural centers and universities in the meetings of the ACCs to enhance coordination and partnerships.

62. Implementation of the project activities at township level will be coordinated by Project Implementation Committees (PICs). The PIC is a sub-committee under the ACC, and it includes field level staff of the implementing MOALI departments (DOA, DAR, and LBVD), who follow the work plans developed by the respective departments for Components 1 and 2. PIC staff in conflict-affected townships will also participate in conflict-sensitivity training and may contribute to the TCAMP drafting process, if appropriate.

63. Extension workers (DOA), research farm officers (DAR), and veterinarian officers (LBVD) are assigned as the district/township implementers. They are based at the township-level, locally recruited, are familiar with the local context and the agriculture and livestock conditions, and they speak the local languages. They will reach out to farmers and producers with information, trainings, and demonstration to the small farmers including women and ethnic minority.



F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The Project area will cover a total of 97 townships in 7 regions (Ayarwady, Bago, Mandalay, Magwe, Sagaing, Thanintharyi and Yangon), 5 states (Chin, Kachin, Kayah, Mon, Shan), and 1 Union Territory (Nay Pyi Taw). The Project will also support national reference laboratories which will serve farmers and agro-enterprises nationwide. The Project areas have been selected based on the following criteria and consideration. 1) Agriculture, horticulture and livestock concentration. Three agro-ecological zones (Dry, Hill & Mountains, and Delta) are prioritized based on the higher presence of agriculture and livestock production, and coastal AEZ in a limited scale. Moreover, the (Central) Dry zone has been lately and increasingly affected by Climate Change and shortage of rainfall. Thus, the priority was given to these AEZs to address Climate Change adaptation and mitigation measures. 2) Multi-dimensional Poverty Rate. Kachin, Kayah and Chin states were included because of the high poverty rate while they have a strong presence in agriculture and horticulture (Dry, Hill and Mountain AEZs) 3) Conflict-affected areas. Conflict affected areas were also included, especially those located in the high agriculture potential areas and where the conflict risk remains relatively low. Out of the 97 townships, 12 are conflict-affected. Conflict-affected townships are not only different in geography and demographics, but also in the grievances which have contributed to and sustained armed violence and/or inter-group conflict there. Analysis (further discussed in the Inclusion and Peace Annex) suggests 4 to be low risk, 4 low-medium risk, 2 medium risk and 2 medium-high risk. The latter four townships are clustered in Northern Shan state, where the majority of fighting in 2019 took place within 2.5 miles of main roads. In other words, although risk remains, there is a reduced threat to operations in rural areas.

G. Environmental and Social Safeguards Specialists on the Team

Marcel Robert Frederik, Social Specialist
Khine Thwe Wynn, Environmental Specialist
Thiha Ko Ko, Social Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The proposed project activities and investments focus on increasing agricultural productivity and diversification and enhancing market access for targeted value chains in the country. Component 1 will aim to enhance agriculture productivity and



diversification . Component 2 focuses on value Chain Development. Under Component 1 and 2, construction or upgrading facilities will involve cold storage and processing facilities, and demonstration farms and training centers, and artificial insemination services. Component 3 includes project management, coordination, and monitoring and evaluation. This component will ensure effective project management; including (i) supports for the implementation of the project’s environmental and social safeguards instruments, and (ii) technical inputs from the safeguards specialists into TA’s Terms of References – ensuring safeguards aspects are mainstreamed.

Overall, the proposed project is expected to deliver a number of environmental benefits, such as improved soil and water management practices considering the agro-ecological context of the project intervention area. The project will also contribute to an integrated pest and disease management through the adoption of sustainable practices by supplying biological controls; the use of natural enemies to manage population of pest organisms.

The proposed project is a Category B project under the World Bank environmental and social screening guidelines as the activities and investments are not likely to cause significant or irreversible environmental impacts. Potential environmental and social impacts can be mitigated. Major potential environmental impacts are limited to the following categories: (i) Construction of new and upgrading of infrastructure / facilities; (ii) Maintenance and operation of facilities (e.g. cold storage facilities); (iii) Agriculture and livelihood activities; and (iv) Use and management of the pesticides.

Main potential social risks are related to: (i) potential land acquisition; (ii) possible use by farmers of land within the government compounds where facilities will be constructed; (iii) legacy issues of the government facilities; and (iv) potential exclusion of



ethnic minorities, landless farmers, women-headed households or other vulnerable groups. Any social assessment conducted during implementation will assess these social risks.

NFASP consists of series of activities with exact scope and design work remains to be determined. Under these circumstances, impacts cannot be pre-determined. An environmental and social management framework (ESMF) has been prepared which includes:

1. Sub-project typologies
2. Safeguards screening criteria and eligibility
3. Assessment of potential environmental and social impacts of possible activities and investments
4. For each typology, expected ES instruments are defined based on type, scope and depth of required mitigation measures
5. Provision of ready-to-implement mitigation measures through standardized instruments, generic environmental management plan (ECoP, EMP, etc.), and standardized guidelines such as standards on hazardous waste management, health and safety management system for laboratories. During initial years of the Project, safeguards instruments (ESMPs or ECoPs) will be prepared for the activities in accordance with the screening outcomes, once its scope and design of upgrading have become very clear.
6. Institutional arrangement and capacity to implement the ES instruments
7. Budget provision to implement the ES instruments.

During project preparation, a site-specific environmental and social management plan (ESMP) was prepared for an activity (livestock) where location, scope and design are known. The ESMP highlights that activities to be conducted are not expected to have significant environmental and social impacts. Potential main impacts are related to the manure from cattle farms, site preparation for cattle housings, and occupational health and safety. Mitigation measures will include (a) installing proper



ventilation inside the facilities (barn, laboratory, and plant); (b) changing feeding practices; (c) managing manure to reduce CH4 and N2O emissions; (d) covering manure storage facilities; (e) avoiding manure or fertilizer application while soil is saturated with water; (f) providing a safe distance of the cattle housing buildings at least 30 m away from well or water intake; (g) ensuring proper disposal of wastewater generated from AI laboratory; and (h) providing adequate personal protective equipment for workers at the facilities (cattle breeding, cattle housing, AI laboratory, and LN2 production).

Performance Standards for Private Sector Activities OP/BP 4.03 No

Natural Habitats OP/BP 4.04 Yes

The policy prescribes “Natural Habitats” as areas where (i) the ecosystems’ biological communities are formed largely by native plant and animal species, and (ii) human activity has not essentially modified the area’s primary ecological functions. Direct adverse impacts on the natural habitats are not expected. Regarding the livestock-related activities , no potential land use changes including the conversion of forests and other natural habitats to pasture for ranges is expected since the proposed activities are going to be in fully developed area with already historically converted land with no nearby forests nor natural habitats. This policy is triggered as a precaution to ensure that any affected natural habitats are adequately protected, because some of the project sites may take place nearby parks or protected areas. The ESMF provides screening mechanism for proposed activities to exclude any activities that would involve significant conversion or degradation of natural habitats.

Forests OP/BP 4.36 No

No impacts on natural forests will result from works on any of the project sites as wall works will be carried out within the existing boundaries. The proposed project’s ESMF will screen out and exclude any clearing or effects on forest lands.

Pest Management OP 4.09 Yes

The policy is triggered because pesticide use is a necessity in agricultural activities in the region. The ESMF will promote Integrated Pest Management as



standard practice. A screening mechanism has been included in the ESMF to determine if there are any sub-projects or activities with significant pest management issues; if so, then a separate Pest Management Plan (PMP) will be required to ensure that these materials are well managed for those activities. Guidance for PMP is included in the ESMF which will be further developed and implemented by MOALI during project implementation stage. The project will fund an integrated pest and disease management which will support the adoption of sustainable pest and disease management practices by supplying biological controls; the use of natural enemies to manage population of pest organisms.

Physical Cultural Resources OP/BP 4.11 Yes

This policy is triggered to ensure that any “chance finds” or other physical cultural resources during excavation or other earth-moving activities are adequately protected. Project’s ESMF has included chance find procedure which requires that should any areas of potential cultural importance or artefacts be identified, works should stop and the government related agencies (SPIU or Department of Archaeology, National Museum and Library) should be contacted. No work should continue until approval has been sought from these agencies.

Indigenous Peoples OP/BP 4.10 Yes

Myanmar is one of the most ethnically diverse countries in Asia, and the project will fund activities in areas where ethnic minorities are present. Both under Component 1 (Agriculture Productivity Enhancement and Diversification) and Component 2 (Value Chain Development), there may be risks that ethnic minorities do not have equal and culturally appropriate access to benefits and may not be adequately consulted in decision making. Ethnic minorities will be deliberately targeted and included as project beneficiaries (as part of the Vulnerable Population Groups (VPGs), to ensure that they will be beneficiaries as anybody else from improved seeds/breeds and other project benefits. To ensure that they are meaningfully consulted, OP 4.10 has been triggered. Considering that the exact scope and design of the projects work remains to be determined, MOALI prepared, a draft CPPF and included as a stand-alone section of the project's



ESMF. For activities where ethnic minorities are present, MOALI will conduct a social assessment and ensure that free, prior and informed consultations are held to reach broad community support and prepare Community Participation Plans (CPPs) as required under the CPPF.

The draft CPPF was disclosed in January 2020 as part of the ESMF and consultation meetings were completed by in the first week of March 2020. These consultation meetings included consultations in the conflict affected townships in Shan and Kayah states with CSOs, ethnic group organizations and farmers groups. Feedback received from the consultations have been incorporated in the project design and CPPF.

Further consultations will be conducted during project implementation in accordance with the phased approach. During the initial years of implementation, if ethnic minorities are found to be present, a Community Participation Plan (CPP) will be prepared.

Involuntary Resettlement OP/BP 4.12 Yes

Involuntary Resettlement (OP/BP 4.12) policy is triggered on a precautionary basis. The project will primarily support the upgrading of capabilities and facilities on existing government facilities and infrastructure- research/demonstration farms. The foot print will be small scale. Although project activities will take place within the physical footprint of the existing government facilities, it is possible that additional small strips of land may be required to enlarge the footprint of the facilities to accommodate new buildings or that farmers/ cattle ranchers are using the land within these government compounds and require to enforce access restrictions. Any land acquisition will not be funded through World Bank financing.

Considering that the exact scope and design of the project works remains to be determined, a Resettlement Policy Framework (RPF) has been prepared and disclosed as a stand-alone section of the ESMF report. The RPF will not allow for voluntary land donations, since the land owners are not direct project beneficiaries. The draft RPF was disclosed in January 2020 as part of the draft ESMF



and consultation meetings were completed by March 2020. Feedback received from the consultations have been incorporated in the project design and RPF. The ESMF provides screening mechanism to exclude any activities that has land legacy issues.

Safety of Dams OP/BP 4.37	No	The project will not finance construction/rehabilitation/maintenance of dams.
Projects on International Waterways OP/BP 7.50	No	Not relevant to the project. Based on the preliminary assessment, the identified locations of the proposed laboratories which may pose substantial to high risks of pollution due to lack of capacity for hazardous waste management and lack of human resources are not close by the international waterways. ESMF provides screening mechanism to exclude any activities especially high risk laboratories that would result pollution of any international waterways.
Projects in Disputed Areas OP/BP 7.60	No	Not relevant to the project.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The proposed project is a Category B project under the World Bank environmental and social screening guidelines as the activities and investments are not likely to cause significant or irreversible environmental impacts. Potential environmental and social impacts can be mitigated. Potential major environmental impacts and proposed mitigation measures are listed below; while the moderate and minor environmental impacts are described in more detail in the ESMF.

a). Construction of new and upgrading of value chain services/facilities related impacts such as noise, dust, sedimentation, waste disposal, management of storm water, and health and safety of workers and nearby communities. The project will implement mitigation measures that avoid or minimize air, water and land pollution and noise pollution from civil works through the application of good engineering designs and good practices for construction by incorporating environmental mitigation measures (e.g. control of works, dust prevention measures, proper management of hazardous and non-hazardous site wastes and surplus materials, Code of Conduct etc.) in the technical design and tender documents.

b). Identified potential impacts due to maintenance and operation of facilities are as follow but not limited to (i) impact on water quality, (ii) impact from hazardous materials and substances, (iii) impact from hazardous and non-hazardous waste, (v) impact on occupational health and safety, (vi) impact on community health and safety, and (vii)



workplace risks such as sexual harassment. The potential impact on water quality may be resulted due to the discharge of untreated processed water, or disposal of accidental or mismanaged polluted waste water from the facilities such as in value chain facilities, and laboratories including mobile laboratories.

In order to avoid, minimize and mitigate the potential impacts from the proposed activities involving maintenance and operation of facilities, appropriate mitigation measures are suggested in ESMF to develop and implement (i) ES instruments such as ECoP, ESMP/EMP and OHS, as well as (ii) guidelines for bio-safety protocol as well as storage for chemical materials at laboratories. The ES instruments will ensure – among others – wastewater generated from facilities and laboratories to public drain are adequately treated and disposed, all hazardous materials are stored and transported properly to prevent spills, non-hazardous wastes are managed properly, and ensure installation of required safety facilities and use of appropriate PPEs in the laboratories.

As part of managing risks for the laboratories which are pre-identified as high risk, those laboratories will be rolled out to a later stage of project implementation. This will allow the PMU to apply/execute measures in reducing the associated risks to a safer level and eligible for funding. ESMF has included pre-identified 'high risk' laboratories and measures considered for risk reduction and management. Investments related to safeguards measures will be supported by the Project.

c). Potential impacts associated with agricultural and livelihood activities are localized, site specific and manageable with known technical approaches. Potential impacts include health and safety of project-affected peoples during the project life cycle, particularly in regards to the safe use and handling of chemical materials. Mitigation measures include the implementation of ECoP, site specific ESMP, and Good Agricultural Practice (GAP) that promotes organic farming and crop rotation system.

d). Procurement of hazardous materials. Unintentional use of restricted hazardous materials in agro sector and laboratories may lead serious environmental concerns as well as health and safety of workers and nearby communities. In order to avoid procurement of prohibited chemicals including banned/restricted pesticides, insecticides, herbicides and other restricted hazardous materials for laboratories supported under the project, the project will ensure that the negative list for banned hazardous materials is adopted and applied. Training for staffs on the use and handling of hazardous materials will also be made available.

Rehabilitation and construction of test laboratories and cold storage facilities are not expected to result in land acquisition impacts, since these investments are expected to take place on land already owned by the respective departments of MOALI. However, at some locations, farmers may currently be using part of this land for farming activities such as cattle grazing. Under both Components there may be risks that ethnic minorities do not have equal and culturally appropriate access to benefits, and may not be adequately consulted in decision making. This risk will be mitigated through screening for the presence of ethnic minorities in the project area in the project preparation phase. If ethnic minorities are found to be present, a Community Participation Plan (CPP) will be prepared.

The contractors may mobilize several workers from outside the project areas for construction and rehabilitation of facilities. Because of the small scale of the works, the number of workers are expected to be limited at any one site. This may generate potential social risks for communities living in the project area, such as violence with local youth, gambling, drug proliferation, and the risk of disease transmission (e.g., sexually-transmitted diseases such as HIV, syphilis, etc.), particularly among local women. However, these impacts will be mitigated through the implementation



of measures proposed in the project ESMF including: Code of Conduct training for workers and construction supervision teams on required lawful conduct in the host community and on HIV/AIDS awareness, strict enforcement of drug abuse and traffic laws, and ensuring payment of adequate salaries for workers to reduce incentives for theft and gambling. The PMU will be responsible for closely monitoring and mitigating potential risks caused by labor influx to communities in the surrounding project areas.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

No significant potential long term indirect impacts are anticipated in the project area. The project may induce some negative effects in some activities such as impact on air and water quality and soil contamination, noise impacts, impact from hazardous and non-hazardous waste, and labour influx which of those are mostly related to construction related activities and operation of some laboratories. Through the support provided by the project, it is expected that each environmental and safeguard unit will be able to ensure that: (i) projects and programs implemented by the ministry are duly screened for their environmental and social impacts, and, where appropriate, the relevant safeguard instruments are prepared, submitted to consultation, disclosed and executed in a timely manner; (ii) bidding documents for constructions include the relevant environmental and social aspects that the contractors must consider in their proposals; (iii) work contracts include appropriate provisions of the implementation of the environmental and social aspects; and (iv) contractors effectively implement the ESMPs and ESCOPs.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Not relevant.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

MOALI will be the implementing agency for the Project. The PMU engaged an experienced ES safeguards consultant to prepare the ESMF, which addresses the project-related environmental and social issues, and sets out principles and procedures to address the environmental and social impacts of activities.

MOALI's knowledge of specific World Bank policies is not extensive but it has experience working with Bank financed projects. For example, MOALI has demonstrated its capacity to effectively implement elaborated social safeguards arrangements in the context of the ADSP. To ensure resources are available to support the implementation of the ES safeguards instruments, the following arrangement will be applied: (i) A total of four (4) ES Focal officers will be in place, including one environmental officer and one social officer represent DOA, one ES officer represents DAR, and one ES officer represents LBVD; (ii) The PMU's Safeguards Consultant Team which will consist of four (4) consultants – two international consultants for each environment and social, and two national consultants for each environment and social) – and will support the ES Focal officers; and (iii) At the activities level, there will be nine (9) focal persons for each participating divisions. The environmental and social safeguards unit of each participating department will be responsible for (i) ensuring that sub-projects implemented by each department are in compliant with safeguards requirements, and (ii) reporting on environmental and social aspects.

Successful implementation of the proposed activities will depend among others on the effective implementation of the environmental and social management measures outlined in the ESMF. The implementing stakeholders will



require training on the ES safeguards but at various intensities to facilitate and accommodate needs in meeting their roles and responsibilities. Capacity building should be viewed as more than training. It is human resource development and includes the process of equipping individuals with the the right skills and access to information, knowledge and training that enables them to perform effectively. Therefore, as part of the overall capacity building efforts, the project will include awareness raising activities in addition to technical training. The ESMF has included a comprehensive plan for awareness raising activities and technical training. Budget provision for this capacity building effort is also included in the overall project's funding, outlined in the ESMF.

To address potential negative social and environmental impacts, the following safeguard documents have been prepared by MOALI, reviewed by the environment and social specialists of the World Bank and found to be satisfactory.

Environmental and Social Management Framework (ESMF).

NFASP consists of series of activities with exact scope and design work remains to be determined. Under these circumstances, impacts cannot be pre-determined. An environmental and social management framework (ESMF) has been prepared with the main objective is to ensure that the activities to be financed under the Project would not create adverse impacts on the local environment and local communities and the residual and/or unavoidable impacts will be adequately mitigated in line with the WB's safeguard policy.

The ESMF will guide the implementing agencies under MOALI to adequately screen and address environmental and social impacts of the proposed activities thereby determining the appropriate environmental and social category.

Specifically, the objectives of this ESMF are to:

- assess the potential environmental and social impacts of the proposed project, whether positive or negative and propose mitigation measures which will effectively address these impacts;
- establish clear procedures for the environmental and social planning, review, approval and implementation of sub-projects to be financed under the project;
- specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to sub-projects;
- consider different alternatives, options, and relevant mitigation measures during project preparation and implementation;
- determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF;
- address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and
- establish the project funding required implementing the ESMF requirements.

The framework covers requirements for: (i) adequate safeguard screening including impacts on natural habitats, forests, and cultural resources; (ii) impact assessment and development of mitigation measures for construction and operation activities and procedures for chance findings; (iii) procedures for preparation, review, and clearance of safeguards instruments during implementation; (iv) safeguards implementation, supervision, monitoring, and reporting; (v) institutional strengthening and capacity building programs; and (vi) institutional arrangements and budget. The ESMF also includes a screening checklist to exclude all investment proposals that may cause significant or irreversible social and environmental impacts. The ESMF identifies the requirements for the preparation of an Environmental and Social Management Plans (ESMP) for a proposed activity to comply with the WB's and Government's regulations on EIA. In order to address possible, but not likely, impacts on land acquisition and



indigenous peoples, the ESMF also includes a Resettlement Policy Framework and a Community Participation Planning Framework as stand-alone sections.

Both components 1 and 2 include mitigation measures to ensure that the local communities affected by the project works are properly notified of the timing and scope of the planned works and disturbances are minimized. Such minimization of disturbances may include limiting working hours to daylight, special precautions when the work is carried out near children's institutions or traffic management including, if required, the establishment of alternative temporary traffic routes.

Safeguard Implementation, Monitoring, and Training.

The Implementing Agency (IA) will be responsible for implementing and monitoring the environmental and social safeguard instruments (ESMF, ESIA, RPF, CPPF and ESMPs) through their dedicated environmental and social focal points. During project implementation, MoALI will be responsible for preparing and ensuring the effective implementation of safeguard measures for both project components and regularly liaising with local authorities and communities. The IA will also include the ESMP requirements into the standard tender documents to be used as a basis for contractors to implement environmental management for the construction and renovations.

Grievance and Redress Mechanism (GRM).

The project ESMF include a GRM to provide a framework to handle complaints about safeguards compliance, address grievances, and quickly settle disputes. The GRM will become operational at project effectiveness. As part of overall implementation of the activity, the GRM will be established by the Environmental and Social Unit or designated focal points of the PMU. It will be readily accessible, handle grievances and resolve them as quickly as possible. The key processes and elements of the GRM include, procedures for submission of complaints and grievance resolution, responsible persons, and contact information. The complaints can be received in verbal or writing forms, by telephone, fax, or email. They can be sent to the local authorities, contractors, construction supervision engineers, or the independent environmental monitoring consultants. The complaints will also be logged in the record system and sent to the responsible person, who will take action.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The key stakeholders are relevant ministries, council committees, farmers, Myanmar Agri Food Co., Ltd. (MAF), Myanmar Agribusiness Public Corporation (MAPCO), universities, relevant CSOs/NGOs, project beneficiary groups (mango farmer groups, livestock farmer groups, fruits and vegetables groups), media such as farmer channels and MOALI social media, and communities that are in close proximity to the project sites.

The draft ESMF was disclosed locally on 24 January 2020 on DOA's website (http://www.doa.gov.mm/doa/index.php?route=pavblog/blog&blog_id=102) and, upon approval, it will be disclosed on the World Bank's InfoShop. Public consultation on the draft ESMF started in September 2019 with MOALI and was completed in March 2020. These consultation meetings included consultations in the conflict affected townships in Shan and Kayah states with CSOs, ethnic group organizations and farmers groups. The feedback received from the consultations has been incorporated in the project design and the ESMF. Stakeholder consultation will continue during project implementation.



The draft ESMP on Promotion of Artificial Insemination Service and Upgrading of Natural Breeding for the Development of Cattle Production in Myanmar (AI & NB) was disclosed in January 2020. Consultation in Sagaing, Myinmu Township was conducted on 17 February 2020. The feedback received from the consultations has been incorporated in the project design and ESMP. The updated ESMP will be publicly disclosed by MOALI.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank 24-Jan-2020	Date of submission for disclosure 24-Jan-2020	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
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"In country" Disclosure

Myanmar
24-Jan-2020

Comments

The draft ESMF was disclosed locally on 24 January 2020 on DOA's website (http://www.doa.gov.mm/doa/index.php?route=pavblog/blog&blog_id=102)

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank 24-Jan-2020	Date of submission for disclosure 24-Jan-2020
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"In country" Disclosure

Myanmar
24-Jan-2020

Comments

The draft RPF was disclosed locally on 24 January 2020 as part of the draft ESMF on DOA's website (http://www.doa.gov.mm/doa/index.php?route=pavblog/blog&blog_id=102)

Indigenous Peoples Development Plan/Framework

Date of receipt by the Bank 24-Jan-2020	Date of submission for disclosure 24-Jan-2020
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"In country" Disclosure

Myanmar
24-Jan-2020

Comments

The draft CPPF was disclosed locally on 24 January 2020 as part of the draft ESMF at DOA website (http://www.doa.gov.mm/doa/index.php?route=pavblog/blog&blog_id=102)

Pest Management Plan

Was the document disclosed prior to appraisal?

Yes

Date of receipt by the Bank

24-Jan-2020

Date of submission for disclosure

24-Jan-2020

"In country" Disclosure

Myanmar
24-Jan-2020

Comments

The Guidance for Pest Management Plan was disclosed locally on 24 January 2020 as part of the draft ESMF on DOA's website (http://www.doa.gov.mm/doa/index.php?route=pavblog/blog&blog_id=102).

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes



OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

OP 4.09 - Pest Management

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

NA

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

OP/BP 4.10 - Indigenous Peoples

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?

Yes

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes



The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

No

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APPROVAL

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