

The Republic of the Union of Myanmar
Ministry of Natural Resources and Environmental Conservation
Forest Department

**Forest Restoration, Development
and Investment Project
(FREDIP)**

Social Assessment

(Draft for Consultations)

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EXECUTIVE SUMMARY

1. Social Assessment Structure

This Social Assessment (SA) document is structured as follows: Chapter 1 introduces the scope of the SA; Chapter 2 provides an overview of the FREDIP components and sub-components; Chapter 3 presents a summary of the approach used in preparing the SA and challenges that affected data collection and analysis; Chapter 4 summarizes the forest land administration and tenure framework in Myanmar; Chapter 5 describes the Social Baseline, with a focus on the six Project Regions (Ayeyarwady, Bago, Magway, Mandalay, Nay Pyi Taw and Sagaing), four of which also have sample community level data included; Chapter 6 describes stakeholder engagement, with more details provided in the stand-alone Stakeholder Engagement Plan (SEP)¹; Chapter 7 presents a Grievance Redress Mechanism (GRM), which integrates the existing village to national level GRM with two additional levels when the Project management will have the opportunity to resolve complaints; Chapter 8 summarises the potential Project benefits and impacts related to the social baseline, with recommendations for mitigation measures; and Chapter 9 tabulates the various social-related plans, frameworks and site-specific SA triggers (located in stand-alone documents or in the Environmental and Social Management Framework Annexes), along with their relationship to the World Bank Environmental and Social Standards 1-10.

In addition, the SA includes four Annexes, three of which document the ‘virtual’ consultations that took place during the SA process, while the fourth contains profiles of Forest Department-selected community forestry (CF) and non-CF communities in four of the six Project Regions.

2. Introduction and Scope

The Forest Restoration, Development and Investment Project (FREDIP)² is designed to support the core forest sector objectives of the Government of Myanmar (GoM), which are to prevent deforestation and degradation of Myanmar’s forests, while intensifying efforts for forest restoration and enabling more employment and economic opportunities for local communities through the establishment of CF plantations and support to ecotourism around Protected Areas (PA). The Project has five components:

- **Component 1: Productive Forests.** Subcomponent 1.1 Community Forestry, including CF Enterprises; and Subcomponent 1.2 Sustainable Private Sector Plantation Development;
- **Component 2: Community Forestry for Livelihoods.** Support to new and existing CF User Groups (CFUGs), targeted for support under Component 1, through establishment and financing of revolving funds for livelihoods activities;
- **Component 3: Forest Protection.** Subcomponent 3.1 Protected Area Management and Ecotourism Development; and Subcomponent 3.2 Detection and Prevention of Illegal Forest Activities;
- **Component 4: Institutional Strengthening and Project Management.** Subcomponent 4.1 Institutional Strengthening of FD’s Delivery Efficiency; and Subcomponent 4.2 Project Management, Monitoring and Evaluation; and
- **Component 5: Contingency Emergency Response.** To allow the GoM to respond quickly in case of an eligible emergency (such as a natural disaster or pandemic).

¹ Given that the Project is based on community/stakeholder participation and that this was restricted due to COVID-19, additional stakeholder engagement at community level will be required at the implementation stage.

² In this document, the FREDIP is referred to interchangeably as ‘the Project’.

The overall risk rating for this Project is **High**. From a social perspective the risks are expected to be **High** and from an environmental perspective the risks are **Substantial**. Failure to address these risks is especially important for individuals or communities who may be disadvantaged or vulnerable to exclusion from participation, or who may be vulnerable to elite capture of Project-generated benefits or other inequitable distribution or sharing of benefits.

Scope of Social Assessment: The SA covers a range of relevant social risk issues identified through pre-screening at the Project Concept Stage. It ensures that the proposed interventions are assessed on social aspects (a socio-economic profile and results of consultations, covering the six targeted Regions; and legal framework), with attention proportional to the risks and potential impacts, and includes initial observations on how these risks might be offset through Project design, based on information gathered from stakeholders.

This Social Assessment is part of the suite of environmental and social risk management documents for the FREDIP, which also includes the **Stakeholder Engagement Plan (SEP)**, **Environmental and Social Commitment Plan (ESCP)** and **Environmental and Social Management Framework (ESMF)**. The ESCP sets out measures and actions required for the Project to achieve compliance with the relevant World Bank Environmental and Social Standards within specified timeframes. The ESMF is designed to serve several functions. First, it provides a description of the baseline environmental and social (E&S) conditions that are key to understanding the importance of forest resources and ecosystem services in the national economy of Myanmar, as well as the key drivers of forestation and forest degradation. Second, it provides an assessment of the potential E&S risks and likely adverse impacts associated with the FREDIP. Third, it describes an approach to screen and assess the required management, mitigation and management measures at site-specific level to address the identified risks and impacts, and monitoring and reporting of those measures. Fourth, it describes the main institutional responsibilities, organizational structures, and resources (human and financial) required to successfully manage identified risks and impacts.

English language drafts of the four documents (the SA, ESMF, ESCP and SEP), with translations of their Executive Summaries in Burmese, were disclosed for public consultation on 27th December 2020 on the Forest Department (FD) website.³ Copies are also being shared with participants invited to a series of regional consultations to be held in January 2021 (organized virtually due to COVID-19 restrictions).

3. Approach, Methodology and Constraints

A desk review of existing literature and secondary data collection was used to develop the SA for the FREDIP. Virtual consultations (due to COVID-19-related restrictions) took place in September and October 2020 with representatives of CFUGs, non-CFUG community members, private sector companies and associations, local CSOs and decentralized structures of the FD, including both women and men, people with disabilities and representatives of different ethnolinguistic groups. Key informant interviews and focus group discussions were carried out via Zoom or mobile phone, with representative townships selected by National/Union Level FD staff, based on the criteria of presence of effective and less effective CFs.

In order to verify the information gathered, additional disclosure of documents and stakeholder consultations will take place in December 2020 and January 2021, along with the Site-Specific Social

³ www.forestdepartment.gov.mm

Assessment (SSSA) required at the time implementation. Public disclosure should assist in verification of information and analyses.

Challenges during implementation of the SA included:

- **Field inspections and consultations**, normally a key aspect of conducting an SA, could not take place due to COVID-19 restrictions on travel and meetings. However, field-based stakeholder consultations will be conducted during Project implementation, when conducting Site-Specific Social Assessments and Site-Specific Environmental Assessments.
- **Project Region and Township representation.** Due also to COVID-19 restrictions, Mandalay Region and Nay Pyi Taw Union Territory were omitted in the consultation because Magway Region and Bago Regions are similar to Mandalay and Nay Pyi Taw Region in terms of agro-ecological zonation and the ethnic groups present.
- **Limited virtual communication capacity** limited the feedback and suggestions from some stakeholders. This will need to be enhanced during preparation of SSSA and Site-Specific Environmental Assessments.

4. Forest Sector Administration

Forest land administration in Myanmar: Forests in Myanmar are mostly natural and State-owned, with negligible amounts of plantation forest.

- Natural Forest areas are categorized as the Permanent Forest Estate (PFE) - reserved forest or protected public forest – or within the PA system.
- Only permits/ grants are formally registered, while informal or quasi-formal forest tenure is not considered properly registered and secured.
- In the past, customary lands in Myanmar were managed locally, so access and holding rights of customary lands are recorded only at community level.
- There are ongoing efforts by the Department of Agriculture Land Management and Statistics (DALMS) to formalize land-use, tenure and title updating via a cadastral system, although this is a slow process.
- The GoM attempted to create access for communities to use forests and forest products through the CF programme and CF Instructions issued in 1995.
- In the revised CF procedures of 2016 and 2019, more inclusive procedures were provided to protect communities from conflict of interest and elite capture.
- The GoM's perspective is to provide alternative livelihood opportunities, whereas communities are more concerned about the time-limited of the duration of CF which sets out only 30-year security grant.⁴
- There are at least seven government agencies involved in gathering and holding data on forest land and tenure-related aspects. DALMS/Ministry of Agriculture, Livestock and Irrigation (MoALI) maintains all data about land, but primary responsibility for data management rests with the respective ministries or departments.
- The use of the land data maintained by DALM/MoALI is intended only for issuance of permits/ grants or government-allocated land use rights.

⁴ It should be noted that the CF land lead is set for an initial 30-year period with unlimited extendable rights as long as the community complies with the community forestry regulations.

Categories of rights to access forest land and forest resources:

- Different government entities issue different types of land-use permits for agricultural development, plantations and mining operations.
- Many small-scale agricultural plantations and mining operations have no formal documentation and operate on locally understood traditions and practices.
- Lack of clarity on land tenure is the most notable feature of land-use management in Myanmar and one of the most significant challenges to the sustainability of national development.
- Land and resource use is generally categorized as follows:
 - Limited-period permits are granted for using land for development and production/extraction.
 - Forest land is ‘encroached’ upon by communities or investors (often using force or political authority) without due process or compensation.
 - Land is accessed, used or acquired through a largely faulty, or less formal, process, where Government land is encroached upon for many years and land title is not enforced (e.g. buffer zones of PAs are turned into encroached farmland).

5. Social Assessment Baseline Data

Demographic data provides important context for the Project design by informing the magnitude of interventions required, both now and in the future:

- The combined population of the six target Regions accounts for nearly 54 percent (%) of the national population.
- The number of females is higher than the number of males, as it is for the nation as a whole.
- Myanmar is considered to be in a demographic transition as it develops economically, which is a process to which the Project will contribute.
- The median ages in the target Regions are all below 30, indicating a young population and emphasizing the importance of a Project approach that encourages local employment and income generation opportunities.
- The dependency ratio⁵ varies between 47.3% in Mandalay Region to 54.5% in Ayeyarwady Region. The world average dependency ratio was 54.0% in 2014, indicating that the ratio is close to the global average or slightly lower for the targeted Regions, showing the potential importance of income generation activities.
- 5% of the total population in the six Regions reported some form of disability in 2014, with higher reporting for women than for men.
- In all the targeted Regions, Buddhism is the dominant religion with over 90% of population, followed by Christianity and Islam. Religious grouping is an important consideration for initial engagement with a community and for developing appropriate awareness materials and training activities during Project implementation.
- The Project Regions have a total Bamar population of more than 75%.
- The other main ethnic groups in the six target Regions are Kachin, Karenni, Kayin, Mon, Rakhine, Chin and Shan. The Narga ethnic group is present in the northern part of Myanmar, especially in Sagaing Region.

⁵ Calculated as number of children – 0-14 years old – and older persons – 65 years or over – to the working-age population – 15-64 years old.

Education and literacy data shows that:

- Literacy and numeracy levels in Project Regions are high, but males have higher levels of numeracy and literacy than females.
- There is a high rate of enrolment at pre-primary and primary school levels, but the attendance rate then drops by 50% at secondary and tertiary levels.
- At most levels of education, there are more females enrolled than males, especially in secondary and tertiary studies.
- The numbers of teachers, schools and students in the target Regions follows similar trends to the attendance levels, with numbers dropping significantly at secondary and tertiary institutions.

Reserve forest in the Project Regions. In Sagaing Region and Nay Pyi Taw Union Territory, the area of reserve forest is almost double the area under cultivation. In contrast, the area of reserve forest in Magway, Mandalay, Bago and Ayeyarwady is smaller than the area under cultivation.

Type of land tenancy will affect the eligibility of a site for a Project activity. From an administrative point of view, land in Myanmar can be classified as follows:

- **Freehold land:** This land type is not suitable for Project activities.
- **Grant land:** This type of land is owned by the government and exists almost mostly in towns and cities, with a few examples within villages. Grant land is at the disposal of Government and may be leased for 10 up to 90 years. This land type would not be suitable for Project activities.
- **Farmland:** In accordance with the Farmland Law (2012), farmland means land designated as paddy land, ya land, kaing land, perennial plant land, dhani land, garden land, land for growing of vegetables and flowers and alluvial islands. A person granted permission for farming must utilize the land for farming purposes only.
- **Vacant, Fallow and Virgin (VFV) land:** This is a class of land for which the government may grant the right to cultivate or utilize to various types of enterprise. These types of land are administered in accordance with the VFV Land Law and its regulations. The Project will not work on this land type.
- **Forest land:** Forest Land (including Reserve Forest and Protected Public Forest) is declared and administered by the Ministry of Forestry (MoNREC) in accordance with the 'Forest Law'. Permission is required from the Ministry to extract forest products from Forest Land. The Project will work in Forest Land for CF and CF enterprise (CFE) activities.
- **Town land:** This land category will not be used for activities under FREDIP.
- **Village land :** This land category will not be used for activities under FREDIP.
- **Cantonments:** Cantonment Lands are not eligible for FREDIP activities.
- **Monastery:** The Ministry of Home Affairs may declare an area of land as 'Monastery Land', which remains unchangeable in perpetuity.
- **Customary tenure systems:** In Myanmar, rights to land and forest resources are closely connected to social structure and cultural traditions. Community-based traditions and practices applied over several decades continue to guide forest tenure. Since 2010, the GoM has tried to recognize tenure security, including the protection of rights of ethnic communities and women, by revising its forest land and resource policies, laws, guidelines and regulations to formalize customary laws and strengthen forest tenure. Despite these legal and regulatory reforms, several have yet to be enforced. This points to a risk to ethnic rural communities and women's livelihoods, that might be impacted by the Project, through reclaiming of forest land areas that are used by ethnic groups for shifting agriculture and other practices important for their livelihoods.

Gender disparity in economic and household activities:

- **Employment by sector** - Agriculture is the largest employer of female workers, accounting for half of all women's employment, followed by services and then manufacturing.
- **Employment by occupation** - Female representation in government departments and public administration is lower than it is for men, but is steadily increasing.
- **Employment in the informal economy** – A large proportion of women work in informal sector. Rural women are more likely to work on their own than urban women. There is also a large proportion of women who contribute to family-owned enterprises.
- **Agriculture and rural livelihoods** - Women constitute 51% of the agricultural population (as of 2010).
- **Access to and ownership over land** - Nine out of ten agricultural households had access to farmland in 2010, of which 90% were male-headed and 10% were female-headed. Among the male-headed households, 98% had access to farmland, compared to only 61% among female-headed households. The 2008 Constitution gives men and women equal rights to enter into land tenure contracts. But many customary rules provide men with greater economic and decision-making power in domestic affairs, often allowing only husbands or sons to inherit property. A mechanism for joint ownership of property between husbands and wives is not available under the current legislative framework, although husbands and wives often co-own property in practice.
- **Labour in farming** - Women perform most tasks related to crop cultivation, such as planting, caring, weeding, transplanting, harvesting, threshing, post-harvest operations and marketing. Though some of these activities are also carried out by men, women generally have a larger share of the workload. Men traditionally take the role of ploughing, land preparation, seed bed preparation, making bunds and fencing. Men contribute fewer hours to this productive work than women.
- **Decision-making at home, work and in public governance** - At the household level, women have the primary responsibility for domestic and caring duties. High level household decisions, especially economic-related issues, are generally male-dominated. Men also often take the leadership role in community-level activities and decision-making.
- **There are still inequalities** in practice in relation to livelihoods and to land-use and tenure including:
 - i A large percentage of the female working population are involved in the informal and agricultural sectors.
 - ii Men are the dominant decision-makers in a household, except for matters relating to domestic and caring activities within the family.
 - iii Land ownership is traditionally dominated by males, despite equal legal status of women.
 - iv Although women carry out the majority of work in agriculture and forestry, particularly labour-intensive actions, men have greater economic decision-making power and more access to extension and capacity-building activities.
- **Women have distinct knowledge, needs and priorities** regarding forest management, but are under-represented in decision-making concerning forests. Forests are an important economic resource for both men and women in agricultural communities, and provide the necessary income and resources for shelter, household economy and food security.
- **Traditionally, women** collect firewood and other forest products such as mushrooms, wild fruits, nuts, wild vegetables and medicinal herbs. Men hunt wild animals and cut logs and bamboo.

Livelihoods - The large majority of people in the Project Regions, especially those households neighbouring or living within forest areas, rely on agriculture, forestry and fisheries for their livelihoods, followed by various forms of trade. Farming is the most common livelihood for communities in buffer

zones around many PAs. Village communities around some PAs rely on the harvesting of timber products and non-timber forest products (NTFP), particularly where farming is not productive.

Agriculture – The majority of farmers in Myanmar operate at small-scale. The main cash crops in the target Regions are paddy, wheat, maize, groundnut (rainy season), groundnut (winter season) and sesame (early and late).

Poverty - The official poverty line, as defined by the GoM, is 1,509 Kyat per adult-equivalent (Myanmar Living Conditions Survey, 2017). Ayeyarwady Region is the poorest of the targeted Regions, while Sagaing and Bago (West) have the lowest percentage under the poverty line.

Labour force

- **Employment:** Unemployment rates of 3-5% are found across all age groups and genders, although labour participation rates differ, indicating variation in willingness or necessity to engage in paid work.
- **Child labour:** Under Myanmar law, the minimum working age is 14 years, which corresponds with the Environmental and Social Standards (ESS) 2 requirement. ESS 2 also stipulates that only people over 18 may participate in more hazardous activities.
- In all Regions, and for both female and male, the unemployment rates are lower for those aged 15 and over than those aged 10 and over, indicating that there are many aged 10-14 who are looking for work, but cannot find it.
- Children are employed mainly in agriculture and manufacturing.
- Nearly one quarter of the children with hazardous work are 12-14 years old, and put in very long hours.
- Labour participation rates for women are consistently lower than those for men.
- Forced labour had disappeared from the cities in Myanmar, but in the rural areas people are regularly forced to work as carriers or construction workers for infrastructure development.

Water supply - The main sources of household drinking water in the target Regions during the dry season are tube wells or bore holes, followed by bottled water. During the rainy season, rainwater collection is used.

Sanitation - In all the targeted Regions, improved toilets are used by at least 90% of households. The flush-to-pit latrine design is widely used in all Regions except Magway, where the pit latrine with a slab is the most common design.

Household energy use - Rural households and, to a lesser extent, urban households, still rely on natural resources, especially firewood and charcoal, for household energy, including for cooking and heating. Only 17% of households use alternative sources of energy such as electricity or liquefied petroleum gas (LPG) for cooking. Women suffer most from energy constraints since they are mainly responsible for food preparation and cooking, and spend three times as much time as men collecting fuel and water for the household.

Urbanization - The urban population is growing faster than the country's population as a whole. By 2030, it is projected that four out of ten citizens will live in urban areas.

Access to finance includes:

- the Myanma Agricultural Development Bank (MADB), which plays an important role in financing agricultural activities. Customary tenure cannot qualify for a loan; and
- the Mya Sein Yaung Programme, which supports rural households which rely upon agriculture, livestock, vocational work and small trading for their livelihood, through a revolving fund that aims to increase the income of rural communities and support community development.

However, most credit is still sourced informally.

Social protection - Types of vulnerabilities are identified in Table ES 1.

Table ES 1: Types and levels of vulnerability

Type	Level		
	Individual or Household	Community or Group	District, State, National, Regional or Global
Health	<ul style="list-style-type: none"> • Illness, accident, disability, ageing, death 	<ul style="list-style-type: none"> • Epidemics/pandemics 	
Social	<ul style="list-style-type: none"> • Crime, domestic violence, discrimination • Divorce/separation from or death/migration of main monetary income earner • Exclusion in the family, based on gender or disability • Lack of funds for education 	<ul style="list-style-type: none"> • Crime, gang violence • Exclusion based on ethnicity, language, religion, political affiliation, gender, sexual orientation 	<ul style="list-style-type: none"> • Ethnic and civil conflict, war, other social upheaval • Displacement, resettlement
Economic and Financial	<ul style="list-style-type: none"> • Unemployment, underemployment, instability of employment (casual labour) • Lack of access to land and other inputs for production • Indebtedness 	<ul style="list-style-type: none"> • Displacement, resettlement, crop failure, animal epidemic/pandemic 	<ul style="list-style-type: none"> • Economic downturn, financial system failure • Changes in terms of international trade • Sudden increase of prices of essential goods
Natural and Environmental	<ul style="list-style-type: none"> • Loss or pollution of water sources, land and other natural resources 	<ul style="list-style-type: none"> • Flood, drought, landslide and other weather-related irregularities • Community/group scale resource loss or pollution 	<ul style="list-style-type: none"> • Cyclone, earthquake, flood, drought, landslide, and other wide-scale natural calamities, irregularities and pollution

Source: Adapted from Nishino, Y. and Koehler, G., 2011

Cultural heritage - There are several inscribed and nominated UNESCO World Heritage Sites, many famous pagodas and cultural festivals held in the targeted Regions.

Healthcare services - Among the targeted Regions, only Mandalay Region has specialist hospitals. In the other Regions, specialist services are provided at general hospitals, but these do not exist in every township. Health station hospitals (hospitals with up to 25 beds) are the prevalent type of healthcare facilities in the targeted Regions.

Communications - In the targeted Regions, 50-62 % of females use mobile phones compared with 60-75 % of males. Males also have greater access to the internet (35% versus 21% for females). This has implications for the Project's awareness raising and information dissemination strategies.

Gender-based violence - Women face violence at home and in public:

- There is weak enforcement of the legal framework that is designed to protect women.
- Violence against women is committed by both public and private actors.
- The violence rate was found to be highest among women lacking any formal education and those from poor households.

Climate change - Myanmar is one of the countries most at risk from climate crisis. The Central Dry Zone is home to nearly a third of the national population and includes all or part of Magway, Mandalay and Sagaing Project Regions.

6. Stakeholder Engagement

- Due to restrictions to prevent the spread of COVID-19, travel, large meetings and face-to-face stakeholder engagement in the Project Regions was impossible during SA preparation, meaning that the robust consultations at township and community level that would normally take place as part of SA could not take place. To engage stakeholders, a number of 'virtual' meetings and phone conversations were held instead.
- A Project Stakeholder Engagement Plan (SEP) has been prepared. It includes a summary of the stakeholder engagement conducted, requirements of GRMs and planning for how stakeholders will be engaged during Project implementation. In addition, prior to commencement of any operations relating to any Component activities 1-4, a Site-Specific Social Assessment (SSSA) will be necessary. As part of the SSSA, the Project will require stakeholder engagement at the levels of local communities, Ward/village, township and District, supplemented by Regional consultations (refer to ESMF Annex 1 6, TORs for SSSA).
- Disclosure of Project Information, anticipated impacts and mitigation measures and public consultations with various stakeholders covering both Project-affected parties and other interested parties will be carried out in the targeted Regions, with the objective of collecting the comments and suggestions of stakeholders.
- Approved documents (and any updates) that have been endorsed by the FD and the World Bank will be disclosed on the FD website⁶ and the World Bank will subsequently disclose the documents on its own website.⁷

7. Grievance Redress Mechanism

The existing GRM in Myanmar does not necessarily allow for Project-specific issues to be resolved by the

⁶ www.forestdepartment.gov.mm

⁷ www.worldbank.org

Project management itself, unless they are invited into the system or the grievance is specifically passed across to the management to resolve. The Project will have several GRMs, tailored toward overall Project grievances, involuntary land acquisition (ESS1 and ESS5); Project workers (ESS2); and the needs of ethnic groups, especially in the context of the Community Participation Planning Framework (CPPF)⁸.

8. Potential Social Impacts and Mitigations

There is an expectation that there will be many benefits generated by the Project, and that there will only be localized short-term negative impacts to be considered and mitigated through the design and implementation of the FREDIP. These potential social impacts and mitigating actions are summarised as follows:

8.1 From Baseline Analysis

Population: Each of the FREDIP Components will provide significant benefits to males and females through activities that support the sustainable use of forests and CF management, which in turn will sustainably add value to men's and women's current forest-related activities and introduce new activities, with increased income generation. Activities under the three FREDIP technical Components (1, 2 and 3) allow for reforestation and sustainable extraction of wood and other forest products, including by private enterprises, which should benefit both male and female participating members of local communities. The designated PAs in which Component 3 activities will be implemented (and which will include only PAs that have already been gazetted) will also provide benefits through increased employment opportunities in forest protection and management, and will not impact upon existing community activities in buffer zones.

Ethnicity: To reduce the risk of not including the ethnic groups in the Project, in accordance with ESS7 of the World Bank ESF Standards, a Community Participation Planning Framework (CPPF) has been prepared (refer to Annex 13 to the ESMF). This provides information on potential impacts and mitigations applicable to engagement with ethnic groups within the Project.

Gender: A gender action plan has been prepared to encourage women's active participation in the Project.

Disability: Disability is classified as a vulnerability and affected individuals should be included in the Project support for income generation, such as livelihood development and ecotourism, and development of seedlings from seed in plantation nurseries.

Land Use and Tenancy: Component 1.1 and Component 2 activities will be limited to certain types of land tenure, by Myanmar law.

The Project will work in land areas under the following tenure categories:

- Forest Land
- Protected Areas under gazettelement

The Project will not work in land areas under these additional tenure categories:

- Freehold lands
- Grant Land
- Farmland
- Town Land

⁸ The CPPF, in accordance with ESS 7, is the equivalent of an Indigenous Peoples Participation Framework (IPPF).

- Cantonments
- Village land
- VFV Land

Project activities for strengthening PA management will be conducted only in those PAs that are already gazetted and that are managed by the FD.

Poverty reduction: While the Project will contribute to reducing poverty, PAs and CF developed under the Project may result in restrictions that prevent economic activities. thus jeopardising the livelihoods of the poor. A Resettlement Policy Framework (ESMF Annex 11) for CF and plantation/reforestation areas and a Process Framework (ESMF Annex 12) have been prepared to mitigate these potential livelihood risks, and will be confirmed through SSSAs with associated plans for economic displacement, as required.

Labour: The population in the Project Regions is relatively young, emphasising the importance of a development approach that encourages employment and income generating opportunities.

Occupational health and safety: There is a minor risk of impacts from construction-related activities such as:

- Dust emissions from construction trucks, potentially affecting community health.
- Risks of accidents;
- Risk of HIV/AIDS and Human Trafficking if there is an influx of workers, though minimal labour influx is foreseen;
- Unsafe space and risk of gender-based (sexual) harassment, exploitation, abuse, violence and other inequalities.
- Lower payment and less employment opportunities of community labour than migrant skill workers. The Project, by design, will encourage community participation in all its component activities.
- Child labour - Under Myanmar Law, the minimum working age is 14 years old, which corresponds with ESS 2 requirement. However, ESS 2 stipulates that only people over 18 years old may participate in more hazardous activities.
- Forced **labour** - It is not expected that the Project will cause forced labour.

The Labour Management Procedures (LMP) prepared for the Project (refer to ESMF Annex 9) set out the way in which Project workers will be managed and cover the above occupational health and safety risks.

Communication and consultation: Care must be taken to ensure consultation and disclosure, and to ensure that community-based activities are conducted in such a way that those with low literacy and/or numeracy, who are more marginalized, can benefit from awareness raising and Project development activities as much as the literate. Religious groupings can be important consideration for initial entry for developing community groups and raising awareness within local populations. The Project will need to consider the religion(s) of all target populations and will develop appropriate awareness materials and training activities, as well as identifying some of the key cultural heritage structures and requirements during implementation. The Stakeholder Engagement Plan sets out key consultation principles.

Water and sanitation: The Project is expected to enhance forest cover in water catchments, in both highland and lowland areas, which should decrease water runoff rates, improve water table recharge, improve water quality and raise the water table, reducing water salinity. These factors contribute to improved water quality for human consumption and (indirectly) for the improvement of sanitation conditions.

Energy: The Project's CF and plantation components allow for sustainable forest development, while providing scope for generating NTFPs, potentially managing the amount of wood products that can be harvested for energy and other livelihood uses. Where forest access is closed for firewood and other products, then the Process Framework (ESMF Annex 12) or RPF (ESMF Annex 11) will be applied.

Climate change: The Project will have positive climate change impacts, including through reducing rates of run-off and increasing groundwater recharge, which in turn reduces the severity and incidence of floods, reduces soil erosion and improves protection from wind hazards and storms.

Access to Finance: Through Component 2, the FREDIP will provide CFUGs with revolving fund loans for small-scale livelihood development. These funds will be accessible to CFUG members to support forest-smart formal and informal livelihoods.

Social protection: The Project aims to contribute to reducing vulnerability, albeit through smaller contributions under Components 1 and 2, by providing opportunities for women, men and disabled people to contribute to forestry activities, such as seedling production, CFE development and sustainable livelihoods through NTFP production and, indirectly, through employment in plantation forestry. Forest development also provides protection from natural disasters by reducing flooding, drought intensity and landslides, and by improving water quality.

8.2 Project Component Activities - Impacts and mitigation measures

The benefits and risks of the project components, identified during the Social assessment, are outlined below. However, there are risks associated with the project that were identified by during the Social assessment. The FD have their own legal framework, internal policies and screening procedures that are designed to avoid social risks such as potential of land-use and other conflict with local communities and their livelihoods. The risk levels, identified below, are only likely to occur, if certain conditions identified below, are not met.

Community Forest Areas

a) Increased forest cover through support to CF

If the engagement of stakeholders (including ethnic groups) is weak during consultations for CF institutions, the newly created CF institutions may not effectively benefit the local community. There is a risk that:

- CF may not be appropriately adapted to local conditions;
- There is a lack of trust or confidence in the system, creating conditions unfavourable to expansion of CFs in a socially sustainable manner; or
- Benefit sharing from CFEs is not inclusive, which will have negative social implications, including increasing wealth gaps and putting marginalized groups at risk.

b) Facilitation and support to the establishment of new Community Forests (up to 1,000 CFUGs)

Improved capacity of CFUG members in CF management and Improved safety to communities from forest fire. There is a risk of:

- Conflicts on area demarcation between communities;
- Loss of income of hunters, farmers and other community members who depend on the CF areas for their livelihoods and may be marginalized by restrictions linked to CF implementation; and
- Ineffective CFUG formation and loss of community trust in CF, if the respective FD does not have enough staff to carry out Project-related CF activities.

c) Support to strengthening the existing CFs (up to 2,000 CFUGs)

There is a **Low to Substantial** risk that:

- Re-demarcation will result in conflicts among villages and communities, especially if access to land and livelihood opportunities is restricted for some villages as a result of boundary changes.
- Only a limited population will be interested in purchasing CF products, so it is not easy to grow a market for CFEs in the initial period; and
- Loss of user confidence arises if viable livelihood activities cannot be identified by the CFUGs, or if the chosen livelihood activities have limited potential to generate returns, or if the CFUGs choose new livelihood activities that are not familiar to them, endangering the livelihood stability of the CFUGs and affecting their sustainable management of community forests.

d) Support to incubating new or strengthening existing CFEs

The following potential impacts were identified:

- Limited market size and weak competitiveness may discourage CFEs from penetrating the market and competing with existing suppliers. As a result, the livelihood stability of CFE members may be affected, especially if they do not get support in the initial stage of marketing of their value-added products and initial supply stages, and if they lack other income sources.
- The viability of the clusters formed for supplying to the private sector will be at risk if the private sector cannot guarantee the quantity of timber they will purchase, and if they cannot make long-term purchasing commitments.
- If access to information favours more advantaged and less vulnerable groups, then vulnerable people (including women, poor and the disabled) may not benefit from access to value chain information.
- In forming the associations and clusters of CFUGs around the private sector, vulnerable individuals may be overlooked in participation and decision-making, so may not derive the full benefits of being a member of those groups.
- Since members of CFEs are basically members of CFUGs, and many lack experience in the processing and marketing of value-added products, they may lack the necessary confidence to work constructively with private sector buyers.
- Participants may be exposed to a hazardous working environment with polluting particulate matter, noise from processing activities, risk of fire during production processes or storage of raw materials and products, and exposure to water- and vector-borne diseases due to poor sanitation and drainage from processing activities.

The SEP includes procedures for information access, disclosure and transparency:

- The Community Participation Planning Framework (Annex 13 of the ESMF) will be applied to ensure appropriate engagement with ethnic groups that meet the criteria under ESS7. A Community Health and Safety Plan (ESMF Annex 10) has been prepared to avoid, reduce and mitigate the potential adverse risks and impacts on community health and safety.

A Guideline for Environmental and Social Risks and Impacts Management in Community Forest Management Planning Processes has been produced and presented in the ESMF Annex 3. Based on the existing Standard Operating Procedures for CF, the Guideline outlines a community-based approach to CF, thereby reducing the risk of CF activity not benefitting local communities.

e) Sustainable Private Sector Plantation development

The Project is expected to promote enabling conditions for investment in private plantations (Component 1). However, there is a **moderate to substantial** risk depending on:

- The composition, roles and functions of the working groups;
- The scope and content of policy and regulatory reforms proposed; and
- The extent and nature of spatial planning for plantations

A **Substantial** Risk arises if:

- stakeholder engagement is not carried out in open and transparent manner

stakeholders may not fully understand the purpose of mapping and delineation and may not support the activity moving forward

- Physical and/or economic displacement risk. (In March 2020, the FD have issued a department instruction that requires FD staff conduct a field survey before approving any private plantation establishment in Reserved Forests and Protected Public Forests. The instruction clearly guides to check existing land use of any proposed land for private plantation establishment by the investors. If the land is already occupied by encroached agricultural farming, the land is avoided for private plantation establishment. If unavoidable, the encroached agricultural area is set aside to prevent social conflict or any type of displacement. Hence the physical and economic displacement are unlikely to happen under the project. The project will also do screening before selecting specific sites for project activities and consider that physical and/or economic displacement impacts will be put in the negative list.)

There is a **Moderate** Risk that:

- Access to information may favour advantaged groups
- A Stakeholder Engagement Plan has been prepared and shall be updated, if needed, to set out conditions for consultation, participation and disclosure of plans;
- A GRM will also be set up;
- A stakeholder awareness campaign will be conducted regularly (refer to Stakeholder Engagement Plan); and
- A Community Participation Planning Framework (ESMF Annex 13) will be implemented to ensure that ethnic groups are included in consultations and information disclosure.

f) Support to CFUG revolving funds

- Revolving funds are in most cases self-sufficient, but can become dependent on outside support; access to funds may not be determined in a socially fair manner; funds may be used for short-term commercial gain and there may be misuse; there may be elite capture or unfair distribution of funds;
- If funding is not used properly or is misused, conflict may arise between CFUGs members; and
- If funding is over-exploited by influential members of CFEs, benefit sharing will not be equitable among the members.

To mitigate these risks, policies and operating procedures for the management of revolving funds have been prepared for the Project. Assessments of potential livelihood opportunities will be conducted before revolving funds run by CFUGs are supported. Support and training on marketing of products will follow an inclusive approach, including vulnerable people.

A monitoring and GRM mechanism will be established to control potential misuse of the funding.

g) Protected Area Management, including Ecotourism Development

PAs differ in what level of forest use, or enforcement capacity, is allowed by local communities. FREDIP Component 3 and Capacity Building Component 4 will need to consider, as part of implementation, how to enforce protection of the designated forests, at the same time avoiding or reducing risks to local

communities for their forest-based livelihoods that depend on the PAs. Some positive and negative impacts identified through this Social Assessment include:

- Development of ecotourism practices in selected PAs.
- PA management will be more effective from increased facilities support to PA rangers.
- Improved Conservation of PAs by community participatory enforcement
- Improved capacity of rangers in PA management, species monitoring, participatory communication with communities and increased interpretation skill in nature-based management.
- In demarcating boundaries of PAs, access by communities for livelihood purposes may become restricted.
- Restrictions on community access to resources.
- Buffer zone land areas having existing agriculture or agroforestry livelihoods that might continue or need to be acquired.
- With increased tourism, there is a risk of increased waste for disposal.
- Threat to the cultural heritage of local community may arise from the mass influx of international and local visitors, which may be mitigated through improved capacity of community members in handicraft, traditional activities, tour guide and hospitality management, etc.
- Improved capacity of PA staff in eco-tourism and experiences in eco-tourism management.
- Increased employment opportunities for local community members.
- Increased number of domestic and international visitors at Project-supported eco-tourism sites, leading to increased income for local communities and community-based eco-tourism enterprises at those sites, with related commercial activity such as accommodation, restaurants and markets/shops.
- Tax revenue from eco-tourism will be generated for the government, supporting overall national development.

To mitigate potential negative impacts:

- a Process Framework has been prepared (ESMF Annex 12), in the event that PA management restricts resource access, although it is recommended that communities be involved in PA management, while sustainably using PA areas.
- A Security Management Plan (ESMF Annex 9) has been prepared to ensure that in situations where Project activities may require the use of security personnel to protect people, property or community assets, the Project establishes principles, protocols and procedures to avoid or minimize unnecessary use of force, intimidation or harassment by such personnel.
- Labour management procedures, which also include and occupational safety mitigation measures, have been prepared (ESMF Section 8.7 labour and ESMF Annex 8).
- A Waste Management Plan (ESMF Annex 7) was prepared for the Project that encourages waste separation and composting ('reduce, reuse and recycle' approach).
- The Environmental Code of Practice (ESMF Annex 2) provides basic technical guidelines to inform practical actions and steps to be used during Project implementation to avoid, minimize and mitigate negative environmental impacts.

h) Detection and Prevention of Illegal Forest Activities

Component 3.2 of the Project will contribute to the detection and prevention of illegal forest activities, by strengthening capacity to curb unauthorized timber extraction from high value natural forest areas and strengthening mechanisms that assure legal timber supply chains. Those that conduct unauthorized or

illegal forest activities have a higher potential to also conduct their activities that break other laws and safe practices such as labour (e.g. using child labour for logging activities) and health and safety (e.g. implementation of safe workplace practices including personal protection equipment etc.).

Some positive social impacts identified through this SA include:

- **Capacity of FD officers, in the field, will be built** through this component, leading to improved identification and enforcement of the law in curbing illegal or unauthorized forest products extraction; and
- Increased detection and prevention of illegal forest product extraction activities, especially logging, may **reduce the risk of child or forced labour**.

There are risks that:

- Policy and regulatory reforms resulting in more effective control of illegal forest use (such as timber extraction and poaching) may place law enforcers in dangerous conflict situations with those involved in such activities.
- The extent of capacity building of relevant forestry staff and the enforcement of policy regulations on the ground may not be sufficient.
- Effective enforcement of regulations and policies declines over time, due to lack of available FD officers and lack of empowerment of FD officers in the field.
- Continued demand for high value forest products in the marketplace continues to drive illegal forest extraction activities.
- FD enforcers and security personnel accompanying them may resort to unnecessary use of force while enforcing controls on forest access and use.
- FD enforcers may be placed in unsafe or dangerous situations as they seek to prevent illegal activities.

The following mitigation measures will be adopted:

- The Environmental Code of Practice (ESMF Annex 2) outlines basic technical guidelines to inform practical actions and steps to be followed during Project implementation to avoid, minimize and mitigate negative environmental impacts.
- A Security Management Plan (ESMF Annex 9) has been prepared to ensure that in situations where Project activities may require the use of security personnel to protect FD enforcement personnel, the Project adopts principles, protocols and procedures to avoid or minimize unnecessary use of force, intimidation or harassment by such personnel, while at the same time ensuring their protection.
- The Labour Management Procedures (ESMF Annex 8) set out the way in which Project workers will be managed, in accordance with the requirements of national law and the World Bank's Environmental and Social Framework (specifically ESS 2: Labour and Working Conditions). It ensures that workers on the Project (full-time or temporary) comply with occupational safety measures. This is especially important for security personnel and FD enforcers on the ground, that who may be faced with lax occupational health and safety measures practised by those conducting illegal forest extraction measures.
- Labour management procedures, which include and occupational safety mitigation measures, have been prepared (ESMF Section 8.7 and Annex 8).

9. Issues, Plans and ESF-ESS Compliance

Table ES2: Issues, Plans and ESF-ESS compliance

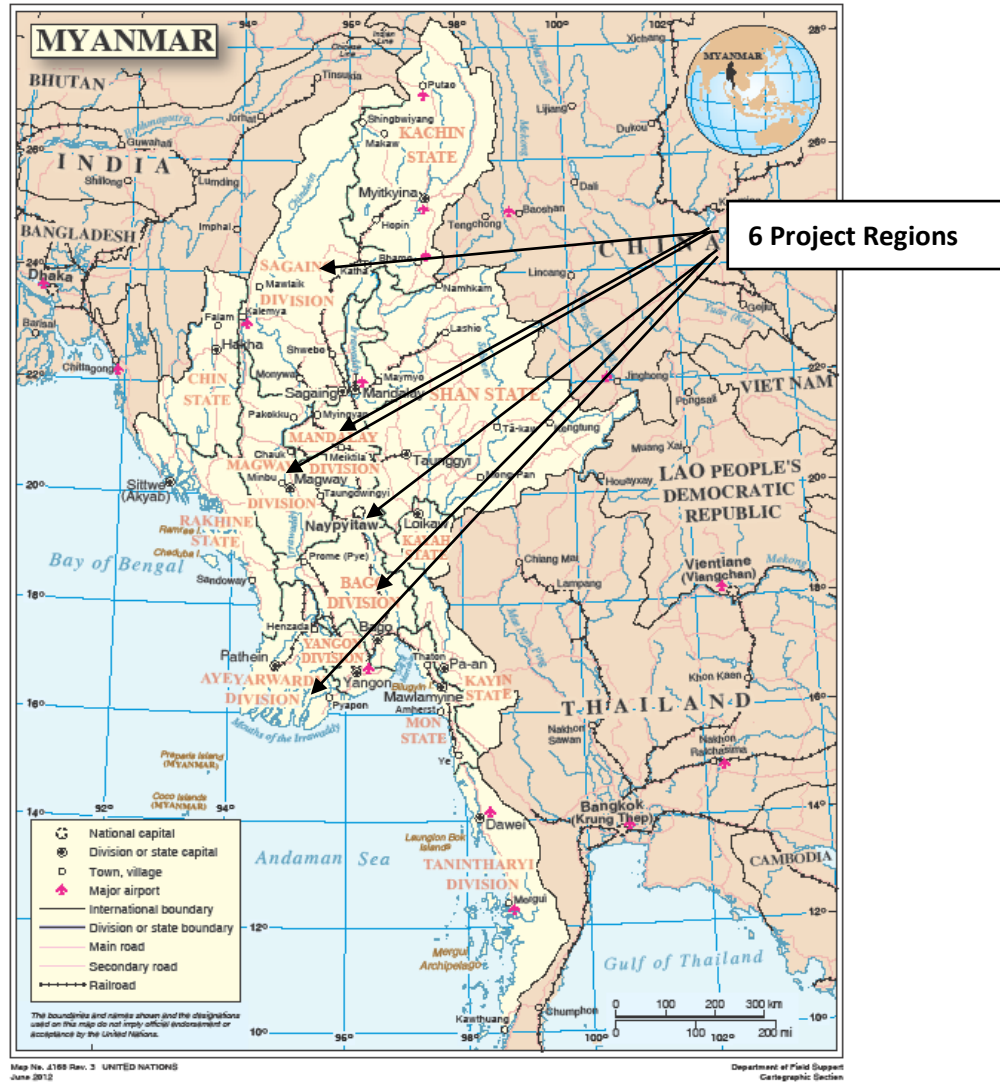
No.	Issues	Mitigation plan/framework	ESF-ESS compliance
1	The target locations for various Project activities, except for PAs, are still to be fully identified. Several site-specific issues still require attention, including stakeholder engagement, site-specific tailoring of activities and task design, consideration of ethnic group participation and potential resettlement impacts and required social mitigations (see also sections 5 and 8 above).	To ensure that implementation at each site is tailored to benefit the local community, and that impacts are identified with mitigation measure incorporated in implementation, and in compliance with the World Bank ESF, Site-Specific Social Assessments are recommended. Terms of Reference for SSSAs are in ESMF Annex 15	ESS 1, 2, 5, 7, 8 & 10
2	All Project Components require engagement of community stakeholders, in capacity building, CF planning, PA development, etc. There are also a number of Government stakeholders, CSOs and NGOs who can provide useful points of views, identify potential impacts and propose mitigation suggestions.	A Project Stakeholder Engagement Plan (SEP) has been prepared that includes a summary of stakeholder engagement conducted, requirements of grievance redress mechanisms and planning for how stakeholders will be engaged during implementation	ESS-1, 2, 5, 7, 8 and 10
3	The SA found cases of underage labour and forced labour of various types. In forestry and associated activities, there are requirements to maintain minimum labour conditions, ensuring that workers have a safe and secure workplace and, in the case of influx of workers, have safe living conditions. The SA has also identified gender inequalities that may overflow into the workplace, including gender-based (sexual) harassment, exploitation, abuse and violence.	To ensure a safe, secure and healthy work environment that complies with ESS 2, Labour Management Procedures (LMP) have been produced. To ensure that there is no prejudice in the workplace, based on gender, religious, race, ethnic background, an Anti-Discrimination Policy will also be included as part of the Plan (ESMF Annex 9)	ESS 2
4	Physical relocation or acquisition of land or structures is not anticipated. However, there may be some economic displacement in CF and plantation forest areas. This may have an impact on livelihoods, resulting in income losses. Most of these will be picked up by the Project by encouraging participation in Project activities, with long-term benefits for affected households.	To cover economic losses in forest areas, except for PAs, a Resettlement Policy Framework (RPF) has been prepared. If a resettlement impact is identified during the SSSA process, then a Resettlement Action Plan will be prepared in accordance with Myanmar's legal framework and the World Bank ESF (ESMF Annex 11).	ESS 5

No.	Issues	Mitigation plan/framework	ESF-ESS compliance
5	In PA buffer zones, the strengthening of management may lead to more rigorous security of boundaries and restriction of forest resource use. This may result in restricted access by local communities that live in the forest buffer zone.	If the SSSA and SSESIA identify hindrances in access to natural resources in gazetted PAs, a Process Framework will be applied (ESMF Annex 12).	ESS 5

1. INTRODUCTION

The **Forest Restoration, Development and Investment Project (FREDIP)** is designed to support the core forest sector objectives of the Government of Myanmar (GoM) to prevent deforestation and degradation of Myanmar’s forests, while intensifying forest restoration and enhancing employment and economic opportunities for local communities through the establishment of community forestry (CF), plantations and support to ecotourism around Protected Areas (PA). The Project will work in five Regions (Ayeyarwady, Bago, Magway, Mandalay, Sagaing) and the Nay Pyi Taw Union Territory (see Figure 1).⁹

Figure 1: Map of Myanmar showing FREDIP Project Regions



⁹ FREDIP is referred to interchangeably as the ‘Project’, while the five Regions and the Union Territory are referred to collectively as the Project/target ‘Regions’.

1.1 Scope of Social Assessment

This Social Assessment (SA) investigates a range of risks that were identified through pre-screening at the Project concept stage. It provides a socio-economic profile of the six target Regions, summarises consultations with stakeholder groups, sets out relevant legal frameworks and identifies potential Project impacts and recommended mitigation measures. While secondary data collection and analysis covered all six Regions, only four Regions were included in the stakeholder consultations, due to limitations arising from COVID-19 restrictions on travel and meetings (refer to Section 3).

The overall risk rating for FREDIP is **High**, considering both environmental and social aspects. From a social perspective the risks are expected to be **High** and from an environmental perspective the likely risks are **Substantial**. The social risks are particularly high for individuals or communities who may be disadvantaged or vulnerable to exclusion from Project activities, or who may be vulnerable to elite capture and other forms of inequitable benefit distribution.

The SA was designed to ensure that measures to address social risks resulting from the proposed interventions are proportional to the level of those risks and their potential impacts, with observations on how the identified risks might be offset through Project design.

1.2 Approach

The SA was conducted between March and October 2020. It set out to :

- (i) Describe the social context and baseline conditions in which the Project will operate, and which it is expected to improve (Sections 4, 5 and 6);
- (ii) Identify potential adverse social risks and impacts of the proposed interventions (Section 5);
- (iii) Define mitigation measures for adverse risks (Sections 7 and 8); and
- (iv) Identify potential positive impacts and measures to amplify them (Sections 7 and 8; refer also to the Environmental and Social Management Framework).

Particular attention is given to social changes that may be brought about through adoption of CF systems, including impacts on gender, vulnerable groups, livelihoods, governance, conservation and commerce. Actions to mitigate negative social impacts, amplify positive impacts and monitor and evaluate risks to the promotion of environmentally and socially sustainable management of forests, include the following:¹⁰

- Labour management - including improved health and safety management at work sites;
- Community health and safety - better protection of community from adverse health and safety impacts linked to the Project;
- Security management - in situations where Project activities may require the use of security personnel to avoid and or minimize unnecessary use of force, intimidation, or harassment, particularly in PAs;
- Land acquisition, resettlement and access to resources - to ensure there is no forced involuntary land acquisition and a well-documented voluntary land-use process;
- A documented process of inclusive stakeholder and community consultation, participation and disclosure; and

¹⁰ Note that some of the mentioned issues are incorporated as Annexes to the ESMF document prepared for the Project.

- Identification and mitigation of adverse impacts on ethnic groups, and enhancement of equal access to Project benefits.

The SA is part of the suite of environmental and social risk management documents for FREDIP, which also includes:

- **Stakeholder Engagement Plan (SEP).** The SEP identifies different stakeholders and describes how they will be actively engaged in all facets of the Project. As part of the SEP, the GoM commits to regular monitoring and disclosure of Project progress and achievements, to ensure transparency in all aspects.
- **Environmental and Social Management Framework (ESMF).** The ESMF is designed to serve several functions. First, it provides a description of the baseline environmental and social conditions that are key to understanding the importance of forest resources and ecosystem services in the national economy of Myanmar, as well as the key drivers of forestation and forest degradation. Second, it provides an assessment of the potential environmental and social risks and likely adverse impacts associated with FREDIP. Third, it describes the approach to screening and assessing the key management, mitigation and management measures at site-specific level that will be put in place to address the identified risks and impacts, and monitoring and reporting measures. Fourth, it describes the main institutional responsibilities, organizational structures and human and financial resources required to successfully manage those risks and impacts.
- **Environmental and Social Commitment Plan (ESCP).** The ESCP sets out actions for the Project to achieve compliance with relevant World Bank Environmental and Social Standards (ESS), with specified timeframes.

English language drafts of the Social Assessment, ESMF, ESCP and SEP, together with translations of their Executive Summaries in Burmese, were disclosed for public consultation on 27th December 2020 on the Forest Department website.¹¹ Copies are also being shared with participants at a series of regional consultations being held virtually (due to COVID-19 restrictions) in January 2021.

This text will be added to final versions only: Final copies of these documents, completed based on the results of these consultations and cleared by the World Bank, have been disclosed on the FD website and by the World Bank at www.worldbank.org.

¹¹ www.forestdepartment.gov.mm

2. FREDIP PROJECT SUMMARY¹²

The FREDIP has five components:

- a) **Component 1: Productive Forests.** Afforestation/reforestation, restoration and avoided deforestation/forest degradation, through empowering responsible stewardship of forests by communities and creating enabling conditions for private investments in sustainable forest plantations. Subcomponent 1.1. Community Forestry, including CF Enterprises Subcomponent 1.2. Sustainable private sector plantation development.
- b) **Component 2: Community Forestry for Livelihoods.** Support for up to 3,000 new and existing CFUGs, targeted for support for establishment / strengthening under Component 1, to start or expand their traditional and new sustainable¹³ livelihoods activities, through investments into revolving funds with related technical assistance and institutional support.
- c) **Component 3: Forest Protection.** Strengthened management of PAs for biodiversity conservation, improved community engagement, and development of nature-based tourism to create job opportunities and revenue generation. Finance for governance-related activities to strengthen capacity to curb unauthorized timber extraction from high value natural forests and strengthen mechanisms that assure legal timber supply chains. Subcomponent 3.1. PA Management and Ecotourism Development; Subcomponent 3.2. Detection and Prevention of Illegal Forest Activities.
- d) **Component 4: Institutional Strengthening and Project Management.** Investment in strengthening the efficiency and capacity of the FD as an apex body in the forestry sector, based on priority needs that will be identified through an institutional assessment, including financing Project management activities, E&S risk management, communications, short-term technical assistance, training, grievance management, financial management, procurement, Project management and support staff services, and required goods and incremental operating costs. Subcomponent 4.1. Institutional Strengthening of FD's Delivery Efficiency; and Subcomponent 4.2. Project Management, Monitoring and Evaluation.
- e) **Component 5. Contingency Emergency Response.** Provision to allow the GoM to respond quickly in case of an eligible emergency (such as a natural disaster or a pandemic).

¹² Refer to FREDIP PID to more detailed description

¹³ A livelihood is sustainable when it enables people to cope with and recover from shocks and stresses and enhance their well-being and that of future generations without undermining the natural environment or resource base.

3. APPROACH, METHODOLOGY AND CHALLENGES

This section presents a summary of the approach used to gather data and information for the SA, and some of the challenges affecting this process. No site visits or in-person community consultations were carried out due to restrictions imposed by the GoM on travel and gatherings related to COVID-19. Given this limitation, Site-Specific Social Assessments (SSSA) must be carried out to ensure that specific social impacts are mitigated and Project benefits are optimized. The SSSAs are expected to build from this SA in their analysis (refer to ESMF Annex 15 for SSSA ToRs).

3.1 SA Approach and Methodology

a) Desk review

A desk review of literature and secondary data sources was carried out. This brought together information on demographics, livelihoods, land use, customary tenure of ethnic people and women, access to electricity, access to education, literacy, poverty, access to health services, employment, access to finance, the presence of important cultural heritage, gender-based violence, gender disparity, forest tenure and forest land administration, among other topics.

b) Virtual consultations

Virtual consultations were carried out during September and October 2020 in four of the six targeted Regions (Sagaing, Magway, Mandalay and Ayeyarwady), mostly via Zoom. These consultations involved representatives of CF User Groups (CFUGs), non-CFUG community members, private sector companies and associations, local CSOs and decentralized structures of the FD. They included both women and men, persons with disabilities and representatives of different ethnic groups (such as the Kayin, Chin and Narga, in addition to the Bamar). A list of those consulted is provided in Annex 1 and Annex 2. Annex 4 presents a summary of responses from the consultations, which have been incorporated into the baseline assessments (see Section 5 below). Social baseline information was meanwhile gathered via a questionnaire survey in September 2020 (see Annex 3).

c) Focus group discussions and key informant interviews

Key Informant Interviews and focus group discussions (FGDs) were carried out (via Zoom or mobile phone) with representative townships in Sagaing, Magway, Bago and Ayeyarwady Regions. The townships were Kant Ba Lu, Shwe Bo, Nat Mauk, Myo Thit, Minbu (Sagu), Pauk Khaung and Pya Pone. These were selected by the National/Union Level FD, based on the presence of both effective and less effective CF institutions.

Key informant interviews were carried out with FD staff, PA rangers, NGOs and CSOs, and private sector associations and companies in the FREDIP Regions, to seek their opinions on unsustainable forest management, their collaboration in CF management, their capacity-building requirements for engagement in CF and their suggestions for sustainable forest management. Communication limitations and an inability to travel curtailed the possibility of interviewing a wider sample of other stakeholders.

FGDs were conducted with local communities, village heads, women, vulnerable people (poor and ethnic groups), CF groups and non-CF groups, in order to gain an understanding of socio-economic conditions, land tenure, access to forest and forest resources, and participation in CF management. The FGDs were also intended to identify potential impacts of the Project on local residents and to hear their comments and suggestions on mitigating measures. FGDs were carried out with village CF groups in all four Regions, while additional FGDs in Sagaing and Magway Regions involved villages close to PAs. Summary notes from these meetings are in Annex 4, and were used to confirm baseline data derived from secondary sources (Section 5).

d) Verification

It is important to verify the results of the consultations, to ensure the accuracy of conclusions and to optimize social mitigation measures. Additional disclosure of documents and stakeholder consultations will therefore take place in December 2020 and January 2021. The SSSAs for each site will be an important instrument for further verifying the information and analysis, and tailoring interventions to the specific needs of the area prior, to commencement of activities.

3.2 Challenges and limitations

This SA process encountered the following challenges:

- **Field inspections and consultations** are a key element of a Social Assessment. But COVID-19 travel limitations and restrictions on group meetings meant that field visits and in-person consultations could not take place. To ensure adequate stakeholder consultation, additional consultations have been included in the Project implementation plan as an important part of the SSSAs (refer to ESMF Annex 15).
- **Project Regions and township representation.** COVID-19 restrictions and time constraints also prevented consultation with all Project areas, with the omission of Mandalay Region and Nay Pyi Taw Union Territory. Mandalay can be considered similar to Magway, and Nay Pyi Taw similar to Bago, in terms of the agro-ecological zonation and ethnic representation.
- **Incomplete remote consultation.** The expected protocols for receiving feedback and suggestions from stakeholders could not be fully followed, due to the virtual nature of consultations and the unreliability of communication channels. Free, prior and informed consultations with communities cannot therefore be considered to have taken place and are still required, in a culturally appropriate manner, to ensure broad community support for the Project approach, design and activities. The Project design already has a strong focus on participatory and consultative processes, especially in the CF components. Incorporating additional feedback from communities and other stakeholders should be a key part of the SSSAs and Site-Specific Environmental Assessments (refer to ESMF Annex 15 and 16).

4. FOREST LAND ADMINISTRATION AND TENURE IN MYANMAR

4.1 Forest Land Administration

Forests in Myanmar have mostly been natural and State-owned, with negligible areas of plantation forest. Natural forest areas under State ownership are categorized as either Permanent Forest Estate (PFE), which includes reserved forest and protected public forest, or fall within the Protected Area (PA) system¹⁴. Informal or quasi-formal forest tenure is not properly registered and secured. So while there is a long history of customary access and land holding rights in forest areas that are managed locally, these rights are recorded only at community level and are not standardized, updated or harmonized with other forest land uses.

The new Forest Law (2018) gives more flexibility to the forest-dependent communities to determine the composition of forest tree species they might grow and harvest in CF areas and the pattern of planting. In the past, the selection of species was rather limited and that restriction was a barrier for forest-dependent communities intending to raise income from CF through a mix of short-term and long-term species. Given the absence of regulations that recognize customary practices, communities may not be able to protect their land holdings, though section 7(d) of the new Forest Law (2018) and Chapter (II) of the Forest Rules recognize natural forests and mangroves conserved by local communities under customary arrangements.

The absence of an integrated land register for each village, or group of villages, has also been a challenge for CF, as it makes it difficult to determine ownership and land-use, for the protection and sustainable management of natural resources. There are ongoing efforts by the GoM to formalize land-use, tenure and title by updating the official cadastral system, although this is a slow process. In this process of formal land registration, community perceptions and values are not considered. The GoM's land cadastre mapping standard has embraced accuracy, but is not effective in enabling communities to participate in land use and land tenure related decision-making processes. So while the government recognizes the benefit of participatory mapping in determining tenure, there is no official mechanism for including community-generated maps into official databases, and such maps are seen as unofficial and lack legal status. Communities therefore lack a mechanism to participate in defining and mapping land use in their areas and to claim tenurial rights. The costs of accurate mapping are also high, particularly in areas that are mountainous, densely forested, highly contested or experiencing conflict.

The GoM created provisions for community use of forests and forest products through the CF Programme and CF Instructions of 1995. In the revised CF Procedures (2016 and 2019), provisions were added to protect communities from conflict of interest and elite capture. The objectives of government and the concerns of communities regarding CF differ significantly. While the Government's objective is to provide CF to support livelihood opportunities, communities are more concerned about the time-limited duration of CF arrangements, which allow a security grant of only 30 years which can be renewed into perpetuity as long as the community complies with the community forestry regulations.

For promoting dialogue and ensuring the participation of all stakeholders, the challenge is a lack of awareness and inadequate access to relevant information. Due to the additional stresses imposed on vulnerable households by shocks such as crop failures and natural disasters, community stakeholders lack the capacity to adequately defend their livelihoods or their legal rights. External support is essential for

¹⁴ 6th Sub-Regional Workshop on Timber Legality Assurance: Country Progress Report, July 3-5 2018, Chiang Mai, Thailand.

communities to gain their rightful benefits from tenure-related laws, regulations and procedural instructions.

There are at least seven different government agencies involved in managing data on forest land and tenure. DALMS/MoALI is the agency authorized to maintain all data concerning land, but primary responsibility for data management rests with respective ministries or departments. The DALMS database is limited to permits and grants for government-allocated use rights. Only an aggregated and limited dataset of this forest data is shared with the public. Availability of updated data on land use/tenurial rights in conflict zones is limited.

The lack of unified data reflects different classification schemes, data templates and methods for the collection and aggregation of data. The land-related information managed by separate departments is not standardized and varies in quality, compatibility, accessibility and usability, especially for non-technical users. Inconsistencies across spatial and temporal dimensions create problems when comparing land cover products and change analyses. Restrictions on data sharing also exist, so multiple agencies produce their own maps and datasets independent, often generating redundant datasets with conflicting statistics. This can be attributed to a lack of prudent Standard Operating Procedures and instructions, proper communication of geospatial science and related technologies at higher levels, lack of resources for training and capacity building at State/Regional level, and inadequate human resource management, as government staff are transferred or do not have incentives to stay. The organizational structures within departments often do not support the establishment and operation of modern (computer-based) land-management data systems.

In the absence of sufficient and accurate data and/or access to it, forest land administration is perceived as opaque and inequitable. This impacts negatively on those many people who are reliant on land-based or forest-based livelihoods.

Technological upgrades for land and resource administration and management are in the planning stage. Under the National Land Use Policy, the 'One Map' process has been initiated and is piloting several land use guidelines to draft a One Map Policy that will detail geospatial infrastructure and service policy in line with Myanmar's pressing needs.¹⁵

4.2 Categories of rights to forest land and forest resources

There are several legal provisions for granting tenure rights to access and use forest land and resources (Table 4.1, Figure 2 and Figure 3). Clarifying forest tenure (both formal and informal) is an important prerequisite for implementation of the FREDIP technical Components, and vital for ensuring that local and ethnic communities can access forest-based livelihood resources. Different government entities have granted permission for agricultural development, agricultural crop plantations and mining operations in forest land. Many of these lack formal documentation, and operate on locally understood traditions and practices. Lack of clarity on forest tenure is the most notable feature of land-use management in Myanmar, and one of the most significant challenges to the sustainability of national development.

In Myanmar, forest land and resource use generally comes about through one of the following mechanisms:

- (a) Limited-period permits are granted for using land for development or for production/extraction.

¹⁵ openknowledge.worldbank.org/handle/10986/34334

- (b) Forest land is ‘encroached’ by communities or investors (sometimes using force or political authority), without due process or compensation.
- (c) Land is accessed, used or acquired through a largely faulty process whereby Government land is encroached upon for many years, and land title is not enforced (e.g. buffer zones are turned into encroached farmland).

Table 4.1: Legal provisions for community and local forest use¹⁶

Forest Type	Law(s)	Summary	Comment
Community forest	Forest Law 2018 CF Instructions 2019	30-year usage rights. CFUG develops management plan	Both subsistence and commercial use is permitted
Plantations	Forest Law 2018	30-year lease	Need to follow instructions
Village firewood plantation	2008 Constitution	Plantation for local village use	Can be established by each State/Region/ Union Territory plan. Budget is allocated by their own government
Subsistence use of forest products	Forest Law 2018	Domestic and non- commercial use allowed without permit	Director General (of the FD) (DG) must post allowed quantity for each forest product
Community-conserved natural forest and mangrove	Forest Law 2018	Traditionally used and conserved areas	DG has the authority to recognize them
Community-conserved PA	Conservation of Biodiversity and Protected Areas (CBPA) Law 2018	Community management according to management plan	New category of protected area added in 2018 CBPA Law
PA buffer zones	CBPA Law 2018	Traditionally used and conserved areas designated as buffer zones of CF, community-based ecotourism or community-managed marine area, with minimum impact on core zone	

Source: An Assessment of Forest Tenure in Myanmar: Securing Forest Tenure for sustainable livelihood

¹⁶ Note that a “Gap Analysis between National Legislation and WB’s ESSs are presented as a separate document.

Figure 2: Types of formal and informal forest tenure in Myanmar¹⁷

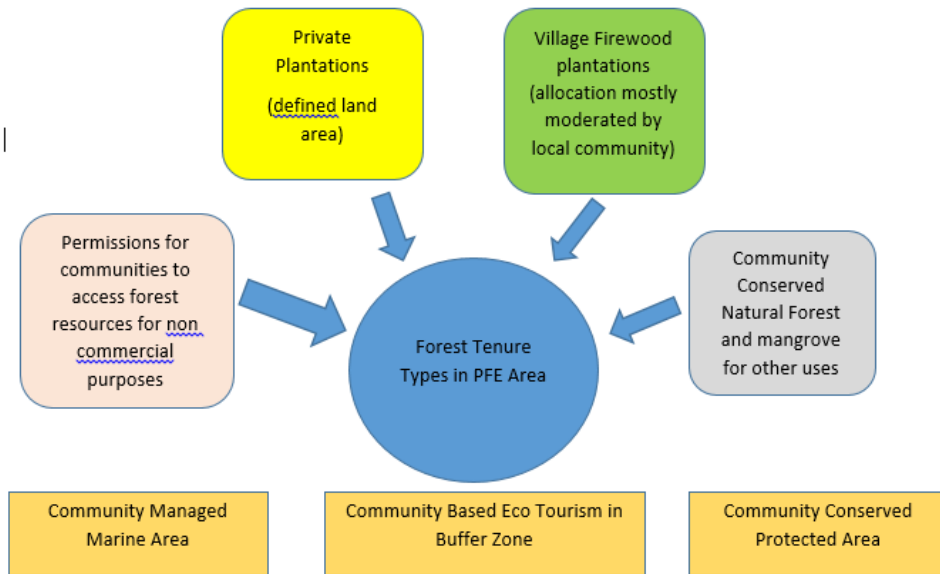
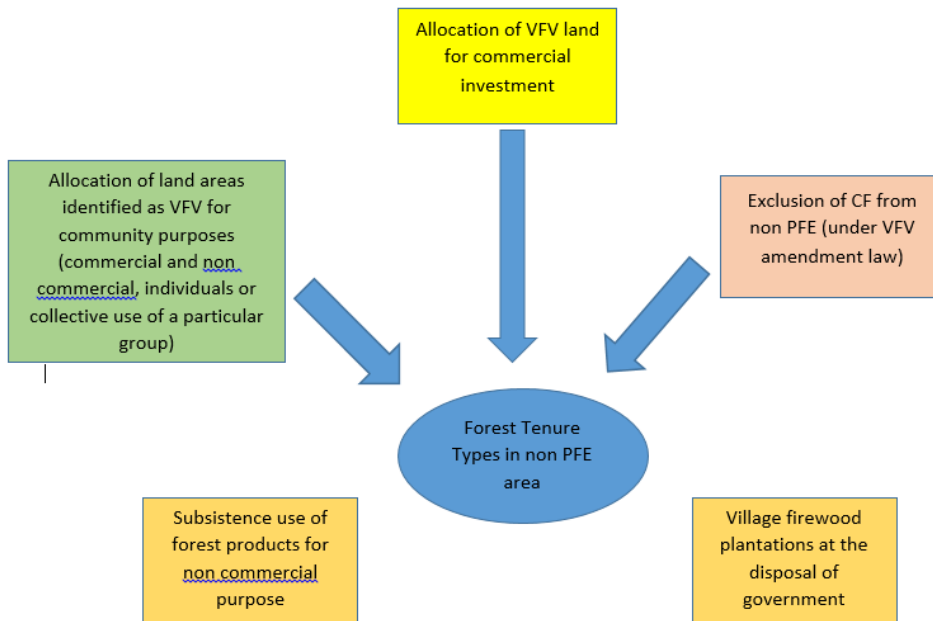


Figure 3: Forest tenure types in non-Permanent Forest Estate areas¹⁸



¹⁷ Source: An Assessment of Forest Tenure in Myanmar: Securing Forest Tenure for sustainable livelihood

¹⁸ Source: An Assessment of Forest Tenure in Myanmar: Securing Forest Tenure for sustainable livelihood

4.3 CF management in Sagaing, Magway, Bago and Ayeyarwady Regions

In CF areas, CFUG members plant seedlings and carry out management tasks such as pruning, thinning, applying manure and maintaining fire breaks. No management of non-CF forests was recorded in the villages surveyed.

Any resident can be a CF member, regardless of ethnicity, as long as they are prepared to contribute their time and effort for CF activities, and agree to adhere to the stipulated rules and regulations.

The CF institutions sampled in Magway and Sagaing Regions had no members from non-Bamar ethnic groups, since there was typically no more than one person per village from such groups. In Bago Region, one of the sampled villages (Shwe Daaung Ngwe Daung) is majority Kayin, while another (Border) is mostly Bamar. Details on ethnicity in the sampled villages are summarised in Table 5.5 in the next chapter. ethnic groups in Border village reported that they could not take part in CF management activities since they are poor, so cannot allocate time to CF management due to their everyday struggles to sustain their livelihoods. In Shwe Daung Ngwe Daung CF, the majority of members are Kayin and a are from other ethnic groups, mostly Chin, which is consistent with the overall ethnic composition of this village. In the villages in Ayeyarwady Region, the involvement of ethnic groups in CF management is higher than in the other surveyed Regions, ranging from 4% to 15% of total CF members, reflecting the higher representation of ethnic groups in the sampled villages.

5. SOCIAL BASELINE

This section provides a summary of the socio-economic baseline data for the six Project Regions. Where possible, primary data from the stakeholder consultations in four of the Regions have been integrated (refer to Sections 1 and 3 above).

5.1 Demographics

The demographic situation provides important context for the Project by providing data with which to determine the appropriate scale of interventions, forecast the required magnitude of Project interventions in the future, determine the economics of implementation and monitor demographic changes over time. Demographic data also helps in determining wealth and poverty levels, a key aspect of assessing socioeconomic status within an area.

(a) Population

Table 5.1 presents key population statistics for the six target Regions, according to the latest Myanmar Population and Housing Census (2014).¹⁹ The six Regions together account for nearly 54% of the national population and include three Regions with more than a 10% share of the total, being some of the most populated Regions in the country after Yangon. This is important for validating the choice of Regions for the Project, which cover a high percentage of the national population.

In all target Regions, the number of females is higher than that of males, as is the case for the nation as a whole. This indicates a need for the Project to incorporate approaches that will encourage women's active participation. A Stakeholder Engagement Plan²⁰ has been prepared in which mechanisms for the participation of both men and women throughout have been outlined. The Project has also prepared a Gender Action Plan that addresses the gender aspects of inclusive and sustainable forest resource management.

While great differences are observed between Myanmar's States and Regions in the total fertility rate (from 4.4 births per woman in Chin to 1.7 births per woman in Yangon), the rates in the targeted Regions are all close to the national average of 2.3.²¹ The national population growth rate and total fertility rate have been in decline for several decades,²² as Myanmar is in the process of a demographic transition.²³ The national annual population growth rate declined from 2.4% in 1983, to 0.61% in 2018.²⁴ Average annual population growth rates for the period 1983 to 2014 are also shown in Table 5.1.²⁵

The median ages in the target Regions are all below 30.²⁶ Such young populations place added emphasis on the importance of measures that will generate employment and income earning opportunities, given that a large portion of the population is or will remain within working age for the next 30 years or more.

¹⁹ The official census should be carried out every 10 years, but was irregular during the previous Government.

²⁰ Given that the Project is based on community/stakeholder participation throughout, additional stakeholder engagement at community level will still be required at Project implementation due to COVID-related restrictions during the planning stage.

²¹ Department of Population, 2015.

²² www.mrlg.org/wp-content/uploads/2019/07/Mekong-State-of-Land-May2019-with-New-map-MQ.pdf

²³ www.mrlg.org/wp-content/uploads/2019/07/Mekong-State-of-Land-May2019-with-New-map-MQ.pdf

²⁴ data.worldbank.org/indicator/SP.POP.GROW?locations=MM&display=graph

²⁵ Nay Pyi Taw Union Territory was created in March 2011, but was part of Mandalay in 1983. Therefore, statistics for the three-decade period are not available

²⁶ Department of Population, 2015.

Table 5.1: Populations of FREDIP target Regions

Region	Population (thousands)			Proportion of national population (%)	Total fertility rate (births per woman)	Population growth rate 1983-2014 (%)		Median age
	Total	Female	Male			Entire period	Annual average	
Ayeyarwady	6,185	3,175	3,010	12.0	2.6	24	0.70	27.7
Bago	4,867	2,545	2,322	9.5	2.2	28	0.80	28.1
Magway	3,917	2,103	1,814	7.6	2.1	20	0.59	29.4
Mandalay	6,166	3,237	2,928	12.0	1.9	35	0.97	28.2
Nay Pyi Taw	1,160	595	565	2.3	2.2	n.a.	n.a.	26.8
Sagaing	5,325	2,808	2,517	10.3	2.3	38	1.04	27.4

Source: Central Statistical Organization, 2019; Department of Population, 2015

Population density in Myanmar is the second lowest in the Mekong Region after Lao People’s Democratic Republic, at 81 persons per square kilometre.²⁷

Table 5.2 summarises key household statistics for the target Regions.

Table 5.2: Mean household size, dependency ratio and disabled persons

Region	Mean household size	Total dependency ratio (%)	Disabled persons out of total population (%)	
			Physical	Mental
Ayeyarwady	4.1	54.5	9.8	2.8
Bago	4.2	53.3	5.2	1.4
Magway	4.1	51.9	6.5	1.7
Mandalay	4.4	47.3	3.9	1.0
Nay Pyi Taw	4.1	48.8	3.7	1.0
Sagaing	4.6	53.5	4.0	1.1

Source: Central Statistical Organization, 2019; Department of Population, 2015

The global average dependency ratio was 54.0 in 2014²⁸, so the ratios in the FREDIP target Regions ratio are similar to the global average or slightly lower. Average household sizes are consistent with low fertility rates and a general absence of extended families within households.

Close to 5% of the total population reported some kind of disability in 2014, with the percentage higher for women than for men.²⁹ Among the FREDIP Regions, Ayerawady has a particularly high incidence of disability at 12.6%, more than double the national average.³⁰ Given that 15% of the world’s population experience some kind of disability and 80% of persons with disabilities live in developing countries,³¹ the proportions reported for the Regions are not unusually high. However, disability is classified as a vulnerability in terms of economic marginalization, and people with disabilities should be considered for

²⁷ www.mrlg.org/wp-content/uploads/2019/07/Mekong-State-of-Land-May2019-with-New-map-MQ.pdf

²⁸ data.worldbank.org/indicator/SP.POP.DPND

²⁹ myanmar.unfpa.org/sites/default/files/pub-pdf/policy%20brief%20and%20infographics_Gender%20Dimensions.pdf

³⁰ myanmar.unfpa.org/sites/default/files/pub-pdf/policy%20brief%20and%20infographics_Gender%20Dimensions.pdf

³¹ www.un.org/development/desa/disabilities/resources/factsheet-on-persons-with-disabilities.html

inclusion in the Project's income generating activities, especially Component 2 where forest product livelihood development and ecotourism allows the integration of people with disabilities; and in Component 1 in activities such as raising tree seedlings.

(b) Religion

Buddhism is the dominant religion in all of the target Regions, accounting for over 90% of the total population. Christianity is second, at 7% or less, and Islam third, from 0.3 to 3.1% (Table 5.3). Religious affiliation can be an important consideration in the development of community groups and in selecting channels for raising awareness within local communities. Additionally, being aware of a target population's religion allows appropriate awareness raising materials and training activities to be developed, and for relevant cultural heritage assets to be more easily identified.

Table 5.3: Religious affiliation in target Regions

Region	Proportion of population (%)						
	Buddhism	Christianity	Islam	Hinduism	Animism	Other religions	No religion
Ayeyarwady	92.1	6.3	1.4	0.1	0.0	0.1	0.0
Bago	93.5	2.9	1.2	2.0	0.1	0.3	0.0
Magway	98.8	0.7	0.3	0.1	0.1	0.0	0.0
Mandalay	95.7	1.1	3.1	0.2	0.0	0.0	0.0
Nay Pyi Taw	96.8	1.1	2.1	0.0	0.0	0.0	0.0
Sagaing	92.2	6.5	1.1	0.1	0.0	0.1	0.0

Source: Central Statistics Organization, 2018

(c) Ethnicity

Myanmar is ethnically diverse, with 135 ethnic groups residing in the seven ethnic states and in the other seven Regions which are have mainly Bamar population. The main ethnic groups in the seven -dominated States are Kachin, Karenni, Kayin, Mon, Rakhine and Shan. Other significant ethnic groups such as Pa-O, Wa, Ko Kang, Pa Laung, Akha and Lahu are also present in most States. The Narga ethnic group is found in the north of the country, mainly in Sagaing Region. The overall representation of the ethnic groups in Myanmar is as follows: 9% Shan, 7% Karen, 4% Rakhine, 3% Chin, 2% Indian, 3% Chinese, 2% Mon and 5% others. The ethnic composition of the target Regions is summarised in Table 5.4.³²

Table 5.4: Ethnic composition of target Regions

Region	Bamar	Other ethnicity
Sagaing	81.8%	18.2%
Magway	94.2%	5.8%
Mandalay	95.3%	4.7%
Bago	84.4%	15.6%
Nay Pyi Taw	85.0%	15.0%
Ayeyarwady	77.1%	22.9%

Source: MIMU GAD Township Profiles (2019)

Within the FREDIP Regions, the overwhelming majority of the population of Magway and Mandalay Regions is Bamar, about 95% in each Region. In Sagaing, Bago, and Nay Pyi Taw, the Bamar population is

³² www.rights.org/country/myanmarburma/

81% to 85%, though some townships of Sagaing Region have a majority non-Bamar population. For example, the Narga people are dominant in Nanyun, Lay Shi and La Hel townships, the Shan people are the majority in Khanti and Homalin townships, and the Chin are dominant in Kalay and Tamu townships.

Ayeyarwady Region also has high population of the Bamar, but to a lesser extent (77%) than the other Regions. Among the other ethnic people in Ayeyarwady, the Kayin are the most populous and are highly represented in the townships of Kangyidaunk, Kyone Pyaw, Eain Me, Ma U Bin, Myaung Mya, Nga Pu Taw, Nyaung Done, Pan Ta Naw, Tha Baung and Wah Khe Ma.

According to the social assessment virtual survey, the ethnic population in the village level of the surveyed villages in the four surveyed regions are presented in Table 5.5. The survey pointed out that, in the rural population of the 4 surveyed Project regions, the ethnic population is significantly less in the village level especially in Magway Region and Sagaing Region.

In Bago Region, it was observed that major population of some villages are ethnic people of Kayin with few populations of other ethnic people groups (Bamar, Narga and Chin). Another Bago Region community surveyed is mainly populated with the Bamar people where only few percentages of other ethnic people are present.

Like Bago Region, Ayeyarwaddy Region has high population of Kayin ethnic people compared with other surveyed regions- Magway and Sagaing Region. In three surveyed villages of Ayeyarwaddy Region, 2 villages have some few percentage of ethnic groups (15% in one village and 1% in another village). Kayin and Rakhine are prevalent ethnic people in surveyed villages.

The ethnic composition of the sampled villages in the four surveyed Regions is presented in Table 5.5.

Table 5.5 : Proportion of ethnic people in sample villages in surveyed Regions

Region	Village 1		Village 2		Village 3	
	Major ethnic (%)	Other ethnic (%)	Major ethnic (%)	Other ethnic (%)	Major ethnic (%)	Other ethnic (%)
Sagaing	Bamar (100%)	-	Bamar (100%)	-	Bamar (94%)	Indian Muslim (6%)
Magway	Bamar (100%)	-	Bamar (99.88%)	0.12 (1-Mon)	Bamar (99.87%)	Chin (0.13%)
Bago	Kayin (98.66%)	Chin & Bamar (1.34%)	Bamar (98.31%)	Narga, Chin, Kayin, Indian (1.69%)		
Ayeyarwady	Bamar (85%)	Karen (10%), Rakhine (5%)	Bamar (98%)	Karen (1%), Rakhine (1%)	Bamar (100%)	-

Source: Virtual social assessment survey of FREDIP Project (Sep 2020)

It is apparent that ethnic (non-Bamar) representation is lower at the level of the sampled villages than for the Regions as a whole, especially in Magway and Sagaing Regions. Nevertheless, it is inevitable that Project activities will involve non-Bamar ethnic groups and that may affect certain cultural activities and traditions relating to forests and forest resources, which need to be examined further during SSSAs and incorporated in implementation approaches. For example, Karen and Chin ethnic groups are known to be 'forest-dependent' groups, traditionally practising shifting agriculture in forest areas. They will be participating in Component 1 and 2 activities, where sustainable forestry production, plantation and CF

development will need to take into account their traditional practices and consider promoting appropriate sustainability measures.

To reduce the risk of excluding ethnic groups, a Community Participation Planning Framework (CPPF) was prepared in accordance with ESS 7 of the World Bank ESF Standards (ESMF Annex 13). The CPPF was informed by the findings of this SA and provides information on potential impacts and mitigating measures to ensure the inclusiveness of both ethnic groups and the majority Bamar within the Project.

5.2 Education and literacy

Educational levels impact directly on literacy and numeracy and are also a reliable indicator of poverty/wealth, potential vulnerability and marginalization, and the socio-economic status of a community. In the short-term, literacy and numeracy levels are a key factor in determining the likely effectiveness of consultation/disclosure, and in guiding the capacity-building techniques that will be appropriate within the Project. In the longer-term, education levels will affect the skills level of the available workforce.

The data in this section indicates that the literacy and numeracy levels in FREDIP Regions are generally high (Table 5.6, 5.7 and 5.8). However, care must be taken to ensure consultation, disclosure and community-based activities are conducted in such a way that those with low literacy and/or numeracy, and that are more marginalized, can benefit from Project-supported development activities as much as the literate.

The data shows that males have higher levels of numeracy and literacy throughout the population than females, both nationally and in the Project Regions (Table 5.6).

Table 5.6: Percentage of those aged 15 and above who report being numerate and literate

	Numerate			Literate		
	Total	Male	Female	Total	Male	Female
Union	91.2	94.1	88.7	88.9	92.8	85.6
Region						
Sagaing	93.5	96.1	91.3	92.5	95.8	89.7
Mandalay	97.2	97.9	96.7	94.1	97.4	91.5
Magway	92.5	96.9	89.3	92.1	97.3	88.4
Bago	90.5	94.4	87.2	91.1	95.7	87.1
Nay Pyi Taw	92.9	97.4	89.1	93.2	97.8	87.3
Ayeyarwady	93.2	95.6	91.0	92.9	95.6	90.5

Source: 2017 Myanmar Living Conditions Survey

Myanmar has a high rate of enrolment in pre-primary and primary school (Table 5.7), though there is a high dropout rate thereafter due to limited accessibility to middle schools and high schools. At tertiary level, approximately 15% of high school age students are able to study. At most levels, there are more females enrolled than males, especially at secondary and tertiary levels.

Table 5.7: Enrolment in pre-primary, primary, secondary and tertiary education (2017)³³

Education level	Gross enrolment rate (%)		
	Total	Female	Male

³³ <https://www.indexmundi.com/facts/myanmar/school-enrollment>

Pre-Primary	9.78	9.86	9.70
Primary	112.22	109.12	115.29
Secondary	64.28	67.11	61.47
Tertiary	15.66	18.54	12.76

Source: UNESCO Institute for Statistics (<http://uis.unesco.org/>)

The comparable statistics available for Regions are for the number of persons who never attended schools, as recorded in the 2014 Census (Table 5.8). Magway Region has the highest proportion of the population lacking any school experience, while the widest gender gap in relation to any form of school attendance is found in Bago Region.

Table 5.8: School attendance experience in target Regions

Region	Persons without school experience (% of Regional population)		
	Total	Female	Male
Ayeyarwady	9.4	10.5	8.2
Bago	8.7	13.0	7.3
Magway	13.3	14.8	11.6
Mandalay	8.6	10.6	6.3
Nay Pyi Taw	6.9	9.2	4.3
Sagaing	8.2	9.8	6.4

Source: Department of Population, 2015

Table 5.9 presents the numbers of schools, teachers and students in the target Regions. The number of students reduces by over 50%, between the Primary and Middle school levels, and again between the Middle and High school levels. This will impact on the level of available skills in the working age population of the future, including during the life of FREDIP.

Table 5.9: Schools, teachers and students by levels in target Regions (2017-2018 academic year)

Region	Number of schools			Number of teachers			Number of students		
	Primary	Middle	High	Primary	Middle	High	Primary	Middle	High
Ayeyarwady	6,007	456	285	35,689	12,202	4,883	678,122	353,118	129,963
Bago	4,114	359	211	26,544	12,273	4,233	506,688	299,561	102,138
Magway	3,394	538	196	21,784	10,526	3,291	375,408	260,227	93,225
Mandalay	3,384	486	242	24,994	11,687	4,492	513,368	347,197	111,757
Nay Pyi Taw	572	71	61	4,939	2,140	969	115,004	76,190	25,051
Sagaing	4,170	488	245	28,543	13,778	4,689	543,377	349,679	120,600

Source: Statistical Year Book (2018)

5.4 Land use and land tenure in Myanmar

This section outlines the various types of land use and land tenure in Myanmar, with special focus on the six Project Regions. Land is an economic, livelihood and cultural asset. Therefore, ownership status, tenure security, land use and the historical context of land (in indigenous and ethnic tradition, family inheritance and as an income source or other benefit) are all important to the Project and its effective implementation. Land tenure and land use is also important in terms of identifying land that may be available for Project Component 1, 2 or 3 activities, without needing to change land use allocation category or triggering land acquisition and resettlement impacts. The project activities may require only economic displacement - and for this, a resettlement Policy Framework has been prepared (ESMF Annex 11).

(a) Land use

Land use in the Project Regions is summarized in Table 5.10. In Sagaing and Nay Pyi Taw Regions, the area of Reserve Forest is almost double the area under cultivation, whereas in the other four Regions, the area under cultivation is larger than the area of Reserve Forest.

Table 5.10: Land use in Project Regions (2017-2018) (acres)

Region	Reserve Forests (1)	Current fallows (2)	Net area sown (3)	Occupied area (2)+(3)	Cultivable waste other than fallow	Other woodland	Other	Total area
Ayeyarwady	1,541,664	16,495	4,805,510	4,822,005	38,408	245,214	2,009,273	8,656,564
Bago	3,910,420	4,100	3,334,049	3,338,149	174,011	183,841	2,130,622	9,737,043
Magway	2,665,102	5,871	3,068,358	3,074,229	875,360	2,667,339	1,793,375	11,075,405
Mandalay	1,573,353	159,489	3,209,936	3,369,425	57,174	566,682	2,065,978	7,632,612
Nay Pyi Taw	711,797	855	312,656	313,511	1,977	256,423	460,136	1,743,844
Sagaing	911,891	37,345	461,111	4,648,456	241,035	3,906,774	5,239,203	23,154,382

Source: Myanmar Agricultural Statistics Reports (2008-2009 to 2017-2018)

(b) Land tenancy

The type of land tenancy will determine whether a Project activity may be implemented at a particular location, given that the activities may not be implemented in areas that will trigger displacement. Land in Myanmar is classified according to the following categories:

- (i) **Freehold Land.** This exists mostly in cities such as Yangon and Mandalay, with few instances (if any) in small towns and villages. Freehold land can be interpreted in the Myanmar language as ancestral land. Ownership of such land is conclusive, and the owner is not required to pay land revenue. It is transferable but can only be acquired by the government, for State interest, and in accordance with the Land Acquisition Act. FREDIP activities will not take place in this land category.
- (ii) **Grant land.** This type of land is found in cities and towns across the country, with few cases in villages. Grant Land is owned by the government. It may be disposed of by grant or lease to any person or entity for a stipulated time period through a document known as 'Ga-yan', a direct translation of the word 'Grant'. The lease period may be 10, 30 or up to 90 years, and is extendible and transferable. The owner is legally bound to pay land revenue. Grant land may be taken back if the government does not wish to extend the lease, though this seldom occurs. It may also be taken back during the period of the lease, for State interest, in accordance with the Land Acquisition Act, in which case the owner is entitled to compensation. During the lease period the land is not at the disposal of government. FREDIP activities will not take place in this land category.
- (iii) **Farmland.** As stipulated in the Farmland Law (2012), farmland is land designated as: paddy land, ya land, kaing land, perennial plant land, dhani land, garden land, land for growing of vegetables and flowers, and alluvial islands. The Farmland Law puts into place a system for securing rural land tenure through a land use certificate and registration system. This effectively creates a private land use property right, with rights to sell, exchange, use as collateral to access credit, inherit and lease. It provides freedom for sale, mortgage, handling and lease of the land. But it is stipulated that a person who has permission to farm must utilize the land for farming purpose only. FREDIP activities will not take place in this land category. **Vacant, Fallow and Virgin (VFV) land.** The Vacant, Fallow and Virgin Lands Management Law (2012) provides for allocation of vacant and fallow land that has been abandoned by a tenant. The Central Committee may repossess such lands from the land use

certificate holder for an investment benefitting the State, after payment of compensation, based on the investment cost.

The Farmland Law and the Vacant, Fallow and Virgin Lands Management Law provide that:

- A Citizen has the right to use the farmland in their possession and enjoy the benefit from the right, as long as the conditions of the land use certification are not breached.
- Farmland may have an individual land use right or a common certification with investment from a village cooperative or a private investor.
- Land registration takes place at the time of land use title issuance.
- Annual re-registration of land use certificates is no longer necessary, except if the land is sold or inherited.
- If an organization or firm is using a part of the land, they shall pay compensation or rent.
- Foreigners, including individuals, organizations and Governments, may not have land use title without permission from the Central Administrative body of the GoM, except under the provisions on the Foreign Investment Law.
- In case of complaints, a grievance redress system is only partially described, and in the Farmland Law this only commences from the Township Level, while there is a community village level of complaints prior to this.

The Project will not work on VFV lands.

(iv) Forest Land. Forest land is declared and administered by the Ministry of Natural Resources and Environmental Conservation (MoNREC) in accordance with the Forest Law and its rules and regulations. Permission is required from the Ministry for extracting timber, cutting firewood, producing charcoal or catching fish from a Reserve Forest area. Approval is also required for government enterprises involved in gemstone mining or oil exploration for any prospecting or other activities in reserved forest areas (forest land). Individuals must pay licence fees to the FD for wood-cutting, charcoal production or extraction of forest products in forest land. Forest land may not be re-designated into any other category unless the Ministry de-registers it. This requires permission from the Forest Department and also usually requires permission from the Ministry and Cabinet.

The FREDIP will support CF and CF enterprise activities in Forest Land. Gazetted or designated Protected Areas (PA) are also managed by the Forest Department. Activities for strengthening PA management will be implemented on selected PAs that are already gazetted.

(v) Town Land. Town land is either a sub-category of Freehold Land or Grant Land, or may fall into a third category known as 'La Na 39 type land'. In towns that are expanding, plots of farmland may be transformed into La Na 39 type land. The person having access to it may utilize it for purposes other than agriculture, such as for building houses. This land is transferable. It could also eventually become Grant Land. For example, the new satellite towns of Dagon Myothit on the outskirts of Yangon City were initially paddy fields (agricultural land), but their status was changed into 'La Na 39 land' when they were allocated to individuals, mostly government employees. A few years later, the government issued 'Gayans' (Grants) for these plots. The registered owners then pay land revenue to the government. This land category will not be used for activities of the FREDIP, given that it is mostly located in urban areas under housing, infrastructure or fishponds.

(vi) Village Land. This could also either be Grant Land or La Na 39 type land, as discussed above. Village land is transferable. However, in some villages, houses have been built on plots that are still officially registered as Agricultural Land and have not yet been transformed into Grant or La Na 39

type land. In such cases, the plot will not be transferable, despite being viewed as part of the village. The government collects land revenue from this type of land. Plots of land in villages not exceeding 0.25 acres in size and occupied by, or appertaining to, buildings are exempted from assessment of land revenue (The Amended Lower Burma Town and Village Lands Act, 2015). This land category will not be used for activities of the FREDIP.

(vii) Cantonment. Cantonment is a type of land acquired by the government for the exclusive use of the military. If a portion of land has been identified for such use, the Ministry of Home Affairs will issue a declaration under the Land Acquisition Act and the owner will be compensated if such land was previously Freehold, Grant or La Na 39 type land. For other types of land (e.g. farmland), there is no need to invoke the Land Acquisition Act and the Ministry of Home Affairs can simply declare such land as a Cantonment Area. Cantonment lands are not eligible for implementing FREDIP activities.

(viii) Monastery Land. The Ministry of Home Affairs may declare an area of land to be Monastery Land, which then remains unchangeable in perpetuity. If the land was previously either Freehold, Grant or La Na 39 type land, then the owner will be compensated, but compensation is not applicable for other land types. Land revenue is not payable for this class of land.³⁴ This land category will not be used for activities of the FREDIP.

(c) Customary land tenure systems

Rights to land and forest resources in Myanmar are closely entwined with social structure and cultural traditions. More than 50% of land holdings lack formal land titles or certificates and are managed under customary arrangements. Community institutions manage the relationship between individuals, land and resources, especially in ethnic areas. Access and user rights for forest areas are frequently managed under such customary arrangements, which are not formally recognized.

Secure forest tenure for rural communities is threatened by overlapping policies, regulations and guidelines, the slow progress of peace negotiations, bureaucratic inertia, changing political economies, centralized decision-making, institutional conflict (among both formal and informal entities), poor service provision and limited accessibility.

Within the formal structure, different institutions have parallel and overlapping mandates and competencies to handle land related conflicts, for both forest and non-forest land. State and Regional committees lack clarity on investigative procedures and on who can or must participate, the types of the procedures that can be used and the kinds of outcomes that are acceptable. This results in an inability to use collaborative problem-solving and reach speedy resolution of contested land issues. A similar finding is reported by local communities, which also lack sufficient resources to undertake the tasks systematically.

Since 2010, the GoM has sought to recognize tenure security, including the protection of rights of ethnic communities and women, by revising its forest land and resource policies, laws, guidelines and regulations, and to reflect community-based traditions and practices to guide forest tenure. Despite these efforts, there is very weak enforcement. Government systems still lack adequate mechanisms to recognize customary tenure, with a tendency to prioritize agricultural investment and state ownership.

Limited access to provisions that could facilitate formal tenure leads to a continuation of customary

³⁴ www.burmalibrary.org/docs12/Guidance_Note_on_Land_Issues-Myanmar.pdf

tenure practices in Kachin, Kayah, Kayin, Mon, Shan and Rakhine States, and in Tanintharyi, Sagaing and Magway Regions. Such customary traditions are strongest in upland areas, where shifting cultivation is common, and in ethnic areas and dry zones where rotational fallow arrangements are the norm.

In both formal and customary land governance mechanisms, women are underrepresented. There are few women or representatives of ethnic groups or other potentially vulnerable groups serving as senior officials on any State/Regional land committees.

Despite government attempts to apply national laws on land tenure, communities refer back to customary tenure. The formal institutions of the state cannot effectively deal with people's grievances. So most land disputes are resolved through community-based negotiations. The local knowledge of village administration is not integrated into the GoM's modern methods of formal tenure system to give a unified structure for local governance.³⁵

There is therefore a risk to vulnerable ethnic communities and women if the FREDIP operates in forest lands that are used for shifting agriculture or other practices that sustain traditional livelihoods, under customary tenure arrangements. To mitigate these risks, the ESMF (Annexes 11, 12, 14 and 13, respectively), includes a Resettlement Policy Framework, a Process Framework, a Cultural Heritage Management Procedure and a Community Participation Planning Framework.

5.5 Gender disparity

The following indicates gender disparity in various formal and informal economic activities and activities in the household:

- a) **Employment by sector** - Based on 2010 sex-disaggregated data, the agriculture sector is Myanmar's largest employer of female workers, accounting for half of all women's employment, followed by services and then manufacturing. Outside the agricultural sector, women are employed in the wholesale and retail trade, repair of motor vehicles and personal and household goods (14%), real estate, renting and business activities (11%), in private households as employers and undifferentiated productive activities (9%), and in manufacturing (7%).
- b) **Employment by occupation** - Female representation in government departments and public administration is lower than for men, but is steadily increasing. 52.4% of all staff in government ministries were women in 2009-2010, falling to 37% at management level (deputy level and above). At the Forest Department, however, percentage of female employees is very low.
- c) **Employment in the informal economy** – A large proportion of working women are in the informal sector as 'own-account' workers, with the proportion highest for rural women. They typically derive income from the sale of goods/products such as prepared meals, snacks or woven items, by providing services (e.g. tailoring) or from petty retail trading. There are also large proportion of women who contribute to family-owned enterprises.
- d) **Agriculture and rural livelihoods** - Agriculture is the main economic sector and includes farming, livestock production, forestry, and fisheries. Women constitute 51% of the agricultural workforce (as of 2010).

³⁵ An-Assessment-of-Forest-Tenure-in-Myanmar-Securing-Forest-Tenure-for-Sustainable-Livelihoods%20

- e) **Access to and ownership over land** - Nine out of 10 agricultural households had access to agricultural land in 2010, of which 90% were male-headed and 10% were female-headed. 98% of male-headed households had access to agricultural land, compared to only 61% of female-headed households. Male-headed households also tend to have larger areas of land, averaging 6.5 acres compared with 5.3 acres for female-headed households. Similarly, the average areas of land (3.7 acres) of female headed agricultural households was lower than that (4.2 acres) of male headed agricultural households.

An assessment of land tenure regimes and women's land rights in two Regions (2018, focused on Bago and Tanintharyi regions)³⁶ reports that women's lack of participation in the public sphere affects their access to land. Women are less likely to be involved in meetings regarding relocation or other changes in the use or ownership of land, which affects their access to information about land. In the household, women and men often work the land together, but men are more likely to hold the primary land rights for the household. Men are also more likely to make decisions regarding land use.

Although the 2008 Constitution gives women equal rights to enter into land tenure contracts and to administer property, there is no guidance on how women can defend their rights upon divorce or the death of their husband. Many customary rules in Myanmar provide men with greater economic and decision-making power in domestic affairs, thereby allowing husbands or sons to inherit property. A mechanism for joint ownership of property between husbands and wives is not yet available in the legislative framework of Myanmar.

- f) **Labour in farming** - Women perform most tasks related to crop cultivation, such as planting, caring, weeding, transplanting, harvesting, threshing, post-harvest operations and marketing. Though some of these activities are also performed by men, women bear the greater workload. Men traditionally carry out ploughing, land preparation, seed bed preparation, making bunds and fencing. In upland farming communities, men have responsibility for felling the trees to clear forest land for cultivation, while women till the soil with hand tools once the land is cleared. More time-consuming work such as weeding and planting is also done by women, while men tend to be more involved in soil preparation and ploughing. Women have a higher burden of work overall than men. In addition to work in farming, gardening, animal husbandry, cropping and processing, women are simultaneously responsible for domestic work.
- g) **Access to extension services and vocational training** – Male household members have better access to data and training on crop production, livestock, fisheries and other relevant topics. Male farmers also have slightly better access to extension services (24% of male farmers compared to 22% of female farmers) according to the 2013 LIFT Baseline Survey.³⁷
- h) **Decision making at home, work and in public governance** - At the household level, women take the major responsibility for domestic and caring work such as gathering fuel, fetching drinking water, preparing meals and caring for children and other household members. In day to day running of the home, including food preparation, household hygiene, care of children and elderly relatives, and other caring responsibilities, women are generally the primary decision makers. High level household

³⁶ cdn.landesa.org/wp-content/uploads/Landesia-World-Bank-Gender-Assessment-Myanmar-2018-EN.pdf

³⁷ www.undp.org/content/dam/unct/myanmar/docs/unct_mm_UNWomen_Report_Gender%20Situation%20Analysis.pdf

decisions, especially around economic issues, are generally male-dominated. Men also tend to take the leadership role in community-level activities and decision-making.

Based on this assessment, there are still significant gender inequalities in relation to livelihoods, land-use and tenure, despite equal rights being afforded to men and women under the 2008 Constitution. For example, a large percentage of the female working population are involved in the informal and agricultural sectors; men are the dominant decisionmakers in household, except for matters relating to domestic and caring activities; and ownership is traditionally dominated by males; and despite the majority of work in agriculture and forestry being conducted by women, men have greater economic decision-making power and more access to extension and capacity-building activities.

It is therefore recommended that the FREDIP Component 2 includes, as a priority, the participation of women through enhanced advocacy and awareness activities. Noting that women will often attend community meetings but will not contribute or will allow males to dominate, community advocacy and awareness raising activities must avail forums that are conducive for women to contribute and participate in Project planning, decision-making and implementation. The involvement of women in CFUGs and forest-based livelihoods will be especially important, given that they have a significant role to play in labour-intensive agriculture tasks. The Project should also encourage women to participate in non-traditional areas of reforestation and private forest plantation management (Component 1). A Gender Action Plan has been prepared to promote women's active participation.

5.6 Gender disparity in forest management

In Myanmar, women manage forests and depend on them for their livelihoods, but their tenure over these forests is insecure. Women often have distinct traditional roles in managing forests, and therefore also have expert knowledge about forests and may have their own priorities when deciding how they are managed. Despite this distinct knowledge and priorities, women are under-represented in decision-making processes concerning forests at all levels.

A Gender Issues Survey Report published in 2009³⁸ revealed that Kachin women were undertaking more than half of CF-related activities in their communities and were interested in continuing, as CF had helped generate income to meet their families' immediate practical needs. The report observes that Kachin women are keen on securing legal land ownership.

As the exact status and role of women in decision-making and leadership in relation to forests varies between different Indigenous groups in Myanmar, it is important that community-based FREDIP activities conduct due diligence in seeking out the engagement of both women and men in CF, afforestation programmes, ecotourism and livelihood activities. This may be conducted through the advocacy-awareness-training-planning-implementation approach, which has been effective and well tested in Myanmar.

Ethnic groups in Myanmar manage land according to their own customary tenure systems, which designate responsibilities to customary institutions such as village councils and village chiefs³⁹. Decisions are often made through public discussion at village meetings. While in some ethnic cultures, it is usual to have a mix of men and women attend such meetings and contribute to discussions, in others it is typically

³⁸ Khen S.I., 2009. Forest Conservation in Kachin State Non-formal Education (Monastic Schools). HIV/AIDS Prevention and Care Services Organizational Readiness, Gender Mainstreaming Strategy Development Project, Thingaha, Myanmar.

³⁹ There are seven recognised ethnolinguistic categories, but over 135 ethnic groups.

only men who participate. Regardless of whether they attend village meetings or not, women rarely hold customary village leadership positions. According to a study conducted by ECDF on customary tenure across different ethnicities, out of all of the customary village chiefs, village committees and land, forest, and water committees that were sampled, only 6% of elected positions were held by women (refer to sections 5.1, 5.4 and 5.5).

Women's tenure over land and forests is constrained by lack of legal recognition, as well as by social and cultural norms that restrict access to land, even though the current constitution recognizes equal rights for women and men. Indigenous women's tenure rights are particularly insecure, because their customary rights are not recognized, and because their land tenure rights are constrained by cultural norms within both the government and customary systems.

Land titling offices and courthouses have been male domains and can be intimidating for women. Women have also been constrained by a lack of knowledge about land issues, weak personal confidence and limited experience in public speaking, and, in the case of ethnic women, an inability to speak and read Burmese. Gendered barriers are common across different government agencies, farmer associations and customary decision-making spaces, contributing to a cycle of exclusion from land and agricultural debates: Women's access to land is ordered by their identities and social relations within the household, family and community, and further limited by restrictions around technology, capital and markets. The perception of women as only labourers, rather than farmers, and their lack of information and voice in decision-making, also shape land access.

In different communities, various forms of customary land inheritance exist that may allow both males and females to inherit, or only married women, or only male heirs. Daughters are often, though not always, passed over for inheritance in favour of brothers or brothers-in-law. In the case of the Kachin, for example, women do not have the rights to land ownership certificates. If a woman's husband dies, his assets (including land tenure rights) are passed on to the eldest son. In the absence of land ownership rights, Kachin women have limited access to opportunities linked to land such as credit facilities, training and appropriate technology. Gaining rights to land tenure is therefore a great concern for Kachin women, and many express a desire to hold joint tenure with their spouses, or separate land tenure rights according to CF Laws and Instructions. The FREDIP may deliver a positive impact through Component 2 CF and forest-based livelihoods development, provided that its design includes opportunities to encourage women's participation, gain CF tenure and receive enterprise assistance for income generating activities

Women's relationships with their husbands, and perceived reliance on their goodwill, income and social status, may lead women to stay silent on their own personal claims to land. Even in cases where women are targeted as beneficiaries of land titling regimes, they may be unable or uninterested in decoupling their individual claims from those of their husband or son(s), especially compared with their desire to secure and extend household property rights.⁴⁰ Among some Karen communities practising customary tenure, women can serve as part of the *kaw*, or land decision-making body, but research from other communities in Bago, Yoma, Chin and Shan States shows that despite women's critical role in swidden, women are generally excluded from decision-making about land.⁴¹ Many upland ethnic groups practice strict patrilineal inheritance.

⁴⁰ Razavi, S., 2009 *Engendering the political economy of agrarian change*. Journal of Peasant Studies 36(1):197-226

⁴¹ Faxo, H.O., 2015. *The Praxis of Access: Gender in Myanmar's National Land Use Policy*.
www.iss.nl/sites/corporate/files/CMCP_17-Faxon.pdf

Customary laws are slowly changing. Where previously only sons could inherit land, now land can be given to both sons and daughters. In societies where patrilinear inheritance is practised, some women and men have been promoting changes to strengthen the tenure rights of women⁴². In promoting this transition, it is recommended that the FREDIP Component 2 includes, as a priority, the participation of women (as well as men) through enhanced advocacy and awareness raising activities, as recommended in Annex 13 of the Community Participation and Planning Framework. As a part of Component 4, the Project should also consider capacity building for the FD and other GoM partners for incorporating gender aspects into their decision making.

5.7 Access to forest products by women and men

Forests are important economic resource for both men and women in agricultural communities in Myanmar, and provide the income and resources for shelter, household economic and food security. 13.1 % of the total population from male-headed households and 11.3% of the population from female-headed households are engaged in forest-related economic activities.

Traditionally, women collect firewood and other forest products such as mushrooms, wild fruits, nuts, wild vegetables and medicinal herbs, while men hunt wild animals and cut logs and bamboo. Similar findings were observed in the recent socio-economic survey of the FREDIP. Information on the collection of forest products by men and women is elaborated in records of the SA village consultations (Annex 4).

The sale and export of timber such as teak contributes significantly to Myanmar's economy. The timber industry is dominated by men, with women involved only as collectors, producers and users of NTFPs such as bamboo and rattan, mushrooms, nuts and medicinal plants.⁴³

The FREDIP Components will provide significant benefits to males and females in activities to support the sustainable use of forests and CF management, which in turn will sustainably add value to men and women's current forest-related activities, and will introduce new activities with increased income generating potential. The three FREDIP technical Components will support reforestation, sustainable extraction of wood and other forest products, including by private enterprise, which may benefit both male and female participant members of local communities. Support to gazetted PAs under Component 3 will also provide benefits through increased employment opportunities in forest protection and management, while not impacting on existing community activities in buffer zones. A Gender Action Plan to encourage men and women's active participation in the Project has also been prepared.

5.8 Access to forests and forest products by the Bamar and ethnic groups in CF areas

According to the SA village surveys in Sagaing, Magway, Bago and Ayeyarwady Regions,⁴⁴ both CF members and non-CF members are allowed to access CF areas. No differences between access rights for Bamar people and ethnic minorities were noted in the sampled villages. Similarly, in other forest areas (like reserve forests and public protected forest areas), any person is allowed access, regardless of ethnicity.

While access is permitted for all, only CF members may harvest fuelwood and NTFPs from CF areas in some of the sampled villages, while such harvesting is permitted for all residents in other villages,

⁴² www.pointmyanmar.org/sites/pointmyanmar.org/files/publication_docs/women_and_forest_management_-_english.pdf

⁴³ www.undp.org/content/dam/unct/myanmar/docs/unct_mm_UNWomen_Report_Gender%20Situation%20Analysis.pdf

⁴⁴ This survey was conducted through remote consultation with some additional statistics provided by respondents later on in four of the six Regions (refer to methodology, Section 3).

regardless of CFUG membership. The harvesting of timber and bamboo, as well as hunting and grazing, is forbidden in CF areas for all community members.

Outside the CF areas, all households may collect fuelwood from forests. Fuelwood may also be available from village plantations, where they exist. Some NTFPs (including medicinal plants and food such as Elephant Yum, orchid and some types of bamboo) are collected by local people for sale, while fuelwood and mushrooms tend to be collected only for household consumption. Construction wood is occasionally harvested for house construction and repairs, or for making furniture or agricultural equipment. The communities in the sampled villages are not involved in extensive logging of timber.

5.9 Access to forests and forest products by the Bamar and ethnic groups in Protected Area villages

Villages neighbouring PAs were sampled in Sagaing and Magway Regions. Residents of Chat Thin village in Sagaing Region reported that they are forbidden from entering the PA or extracting forest products, although an interview with a ranger from the Chat Thin Wildlife Sanctuary suggested that residents of surrounding villages and encroached communities inside the PA do in fact harvest trees like *Eugenia*, *Myrobalan* and *Indian Gooseberry* for income, either harvesting the shoots and fruits, or digging up the whole plant. Communities displaced by the development of the Tha Phan Zeik Dam, have also entered the PA where they farm and graze livestock. Boundary poles and signboards have not been effective, and enforcement and patrolling is impeded by limited staff numbers (16 in total) compared with the size of the PA (64,264 acres) and weak facilities support.

Shwe Set Taw Wildlife Sanctuary in Magway Region also faces a problem from community members extracting forest products for their livelihood. Respondents from a village called Eain Ma admit that their livelihoods depend mainly on the collection of forest products, rather than agriculture, since agriculture has been affected adversely by climate change and insecure market. There seems to be no difference in forest access between Bamar and other ethnic groups in the villages near to PAs.

The consultation surveys indicate differences between the levels of access and harvesting by local communities that are allowed, or which go unregulated. FREDIP Components 3 and 4 need to consider how to enforce protection of the designated forests, at the same time avoiding or reducing risks to local forest-based livelihoods that depend on PAs. A Process Framework approach has been prepared, in accordance with World Bank ESS 5 (ESMF Annex 12) and a guide for Environmental and Social Risk and Impacts Management for Activities in PAs (ESMF Annex 4), in the event that PA management restricts access - although it is recommended that communities should be involved in PA management, while sustainably using PA resources.

5.10 Livelihoods

Table 5.11 presents the percentage of households involved in agriculture and non-agriculture activity in the FREDIP Regions, and shows that a large majority are engaged in agricultural activities (including forestry and fishing) in all Regions.

Table 5.11: Percentage of households engaged in agricultural and non-agricultural activities in target Regions

Region	Agricultural activities (%)	Non-agricultural activities (%)	National ranking by importance of non-agriculture (out of 15 States/Regions)
Ayeyarwady	80.8	52.3	12 th
Bago	76.5	60.7	9 th
Magway	74.9	49.7	13 th
Mandalay	56.2	68.6	2 nd

Nay Pyi Taw	56.6	65.4	3 rd
Sagaing	78.9	64.0	8 th

Source: Central Statistical Organization, UNDP and WB, 2020

Table 5.12 presents the numbers of people engaged in different livelihoods in the Project Regions. The least practised occupations include: Electricity, gas stream and air conditioning supply; Activities of extraterritorial organizations and bodies; Professional scientific technical activities; Real estate activities; and Information and communication.

Table 5.12 : Population working in different livelihood sectors in target Regions

Industry	Ayeyarwady	Bago	Magway	Mandalay	Nay Pyi Taw	Sagaing
Total	2,570,387	1,944,177	1,819,286	2,714,957	488,680	2,411,133
Agriculture, forestry & fishing	1,671,324	1,130,796	1,202,244	1,087,208	211,748	1,491,665
Mining & quarrying	4178	9876	12,943	43,294	2,796	39,404
Manufacturing	119,838	123,000	85,885	291,371	19,523	149,341
Electricity, gas stream & air conditioning supply	2,841	2,049	1,096	8,120	1,207	1,794
Water supply, sewerage waste management & remediation activities	2,395	2,571	1,366	4,414	1,060	2,211
Construction	60,771	75,760	46,263	159,405	30,633	75,420
Wholesale and retail trade, repair of motor vehicles & motorcycles	200,973	163,739	109,252	312,075	47,484	163,525
Transportation & storage	72,826	72,636	35,556	105,375	19,365	50,220
Accommodation & food service activities	98,981	90,642	50,251	167,674	22,812	76,371
Information & communication	1,840	2,243	1,612	6,189	834	2,044
Financial & Industrial activities	2,883	2,766	2,349	6,580	1,413	2,013
Real estate activities	132	185	47	2,241	107	106
Professional scientific technical activities	1,810	2,008	1,459	5,453	730	2,141
Administrative & support service activities	7,484	9,111	6,757	28,903	7,696	11,248
Public administration & defence, compulsory social security	40,716	59,043	53,567	75,076	53,148	43,055
Education	45,129	38,757	32,712	51,711	7,408	42,375
Human health & social work activities	8,747	8,608	6,308	14,407	2,217	9,569
Art, entertainment & recreation	3,476	3,615	2,675	15,499	1,568	4,007
Other service activities	77,149	27,316	29,746	82,928	19,906	34,837
Activities of households as employers, undifferentiated goods & services	16,767	47,496	39,400	52,012	4,711	46,400
Activities of extraterritorial organizations & bodies	184	31	149	199	30	62
Not stated	129,943	71,929	97,649	194,823	32,284	163,325

Source: Occupation and Industry Thematic Report (2014 Census)

(a) Livelihood in CF villages

Based on data from the SA virtual survey, the livelihood of CF villages in the surveyed Regions (Sagaing, Magway, Bago and Ayeyarwady) are summarized in Table 5.13.

Table 5.13: Summary of livelihood activities in sample CF villages of four surveyed Regions

Region	Livelihood of CF village (1)	Livelihood of CF village (2)
Ayeyarwady	<ul style="list-style-type: none">- Fishing- Gardening (vegetables)- Catching crabs- Casual labour in fishery sector	<ul style="list-style-type: none">- Gardening (coconut) & other vegetables- Casual labour
Bago	<ul style="list-style-type: none">- Shifting cultivation- Collection of NTFPs such as medicinal plants, Elephant Yum and bamboo- Remittance money- Government staff (very few)	<ul style="list-style-type: none">- Shifting cultivation- Collection of NTFPs such as some medicinal plants, Elephant Yum and bamboo
Magway	<ul style="list-style-type: none">- Farming (Yar)- Remittance money- Small scale trading (grocery shops & mobile vendors)	<ul style="list-style-type: none">- Farming (Yar)- Remittance money- Small scale trading (grocery shops and mobile vendors)- Casual labour
Sagaing	<ul style="list-style-type: none">- Farming (Yar)- Casual labour- Remittance money	

(b) Livelihoods in villages surrounding Protected Areas

According to the Ecotourism Policy and Management Strategy for Protected Areas, the livelihoods of community members people residing in areas surrounding PAs are summarised in Table 5.14.⁴⁵ Farming is the most common livelihood except in the Ayeyarwady Dolphin Protected Area and Meinmahla Kyin Wildlife Sanctuary. In some PAs, residents of surrounding villages rely on the harvesting of forest products and NTFPs for their livelihoods, according to Table 5.14 and SA survey information from Shwe Set Taw Wildlife Sanctuary (Magway Region) and Chat Thin wildlife Sanctuary (Sagaing Region) (reported in Annex 4).

Table 5.14: Livelihoods in villages adjacent to Protected Areas in target Regions

Name of PA	Location of PA	Population of surrounding villages	Main livelihoods of local community
Alaungdaw Kathapa National Park	Mikin and Kani townships, Sagaing Region	30 villages with 5,827 households and 30,290 people	<ul style="list-style-type: none">• Subsistence farming• NTFP harvesting• Subsistence & commercial hunting

⁴⁵ www.gms-eoc.org/uploads/resources/457/attachment/Brochure-Myanmar%20Ecotourism%20Policy%20and%20Management%20Strategy.PDF

Name of PA	Location of PA	Population of surrounding villages	Main livelihoods of local community
Ayeyarwady Dolphin Protected Area	74 km along Ayeyarwady River in Central Dry Zone	40 villages within PA	<ul style="list-style-type: none"> Fishing
Chatthin Wildlife Sanctuary	Kantbalu township, Sagaing Region	28 villages (3 inside sanctuary), 5,526 households with 28,500 population	<ul style="list-style-type: none"> Farming Animal husbandry Hunting Casual labour
Lawkananda Wildlife Sanctuary	Nyaung Oo Township, Mandalay Region	2 villages with 2,100 households	<ul style="list-style-type: none"> Farming Animal husbandry Hunting Casual labour including tourism-related work
Meinmala Kyun Wildlife Sanctuary	Bogalay township, Ayeyarwady Region	25 villages comprising 5,362 households with 22,377 people	<ul style="list-style-type: none"> Harvesting of forest products from Sanctuary (e.g. mangrove poles, marsh-date palm, firewood) for subsistence and micro-business Out-migration for temporary urban employment Semi-nomadic fishing
Moeyungyi Wetland Wildlife Sanctuary	Bago and Waw Townships, Bago Region	17 villages comprising 13,163 households with 38,928 people	<ul style="list-style-type: none"> Subsistence agriculture (paddy farming) Fishing Casual labour Animal husbandry including duck rearing Retail activities Encroachment into Sanctuary for paddy farming, fishing, duck raising and cattle grazing
Pho Kyar Elephant Camp	Yedashe township, Bago Region	No data available	<ul style="list-style-type: none"> Farming activities like shifting agriculture and animal husbandry

Source: Ecotourism Policy and Management Strategy for Protected Areas

Based on the secondary data and survey data presented above, it can be confirmed that the majority of people in the Project Regions, especially those neighbouring or living within forest areas, rely on agriculture, forestry and fishing for their livelihoods, followed by various forms of trade. Therefore, the FREDIP support to sustainable forestry, forest-based livelihoods, CF and forest protection will make an important contribution to the largest livelihoods sector in Myanmar and the Project Regions.

5.11 Agriculture

(i) Land Ownership

The majority of farmers in Myanmar are small-scale farmers. Average land holding in the target Regions is presented in Table 5.15. The proportion who own more than 1 hectare is greatest in Sagaing, Bago and Ayeyarwady Regions.

Table 5.15: Number of farmers classified by land holdings (2017-2018) in target Regions

Regions	Less than 0.5 ha (1.23 acres)	0.5 to 1 ha (1.23 - 2.47 acres)	More than 1 ha (2.47 acres)
Ayeyarwady	162,253	152,265	526,350
Bago	116,117	89,587	439,001
Magway	406,807	243,870	370,589
Mandalay	423,108	313,842	328,693
Nay Pyi Taw	18,185	34,902	47,300
Sagaing	286,077	251,907	641,484

Source: Myanmar Agriculture Statistics (2008-2009 to 2017-2018)

(ii) Crop production in target Regions

Most of Myanmar's agricultural production comes from the five Regions of Ayeyarwady, Sagaing, Bago, Magway and Mandalay, which between them account for about 70% of the cultivated land.⁴⁶ The main cash crops grown in these Regions are paddy, wheat, maize, groundnut (rainy season and winter season) and sesame (both early and late).⁴⁷

5.12 Forest product extraction

Teak and hardwood extraction has gradually decreased in all Project Regions since 2005-2006, with the most marked reduction seen in Bago and Ayeyarwady Regions, decreasing from 20,014 to 3,301 cubic tons and from 17,055 to 5,511 cubic tons, respectively, by 2017-2018 (Table 5.16).

Table 5.16: Teak and hardwood log extraction in target Regions by the MTE (cubic tons)

Region	Description	2005-2006	2010-2011	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Sagaing	<i>Total</i>	356,278	465,309	455,357	288,518	342,113	285,071	114,397
	Teak	61,978	38,310	61,173	29,072	24,290	12,135	6,372
	Hardwood	294,300	426,999	394,184	259,446	317,823	272,936	108,025
Magway	<i>Total</i>	65,263	47,396	47,765	23,663	21,990	13,487	19,924
	Teak	1,532	1,030	6,986	2,854	2,065	1,884	482
	Hardwood	63,731	46,366	40,779	20,809	19,925	11,603	19,442
Mandalay	<i>Total</i>	257,708	261,464	342,526	150,269	104,862	87,835	69,600
	Teak	135,006	103,124	138,152	44,209	12,323	14,916	5,286
	Hardwood	122,702	158,340	204,374	106,060	92,539	72,919	64,314
Bago	<i>Total</i>	361,579	276,483	293,416	92,678	56,744	20,014	3,301
	Teak	59,379	37,072	48,195	16,233	6,794	4,187	311

⁴⁶ www.ccifrance-myanmar.org/sites/ccifrance-myanmar.org/files/resources-documents/agriculture_guide_2018.pdf

⁴⁷ www.csostat.gov.mm/PublicationAndRelease/MyanAgriculture

Region	Description	2005-2006	2010-2011	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
	Hardwood	302,200	239,411	245,221	76,445	49,950	15,827	2,990
Nay Pyi Taw	<i>Total</i>	-	-	25,879	9,850	7,257	5,094	4,398
	Teak	-	-	24,511	1,075	330	489	161
	Hardwood	-	-	23,428	8,775	6,927	4,605	4,237
Ayeyarwady	<i>Total</i>	84,169	61,452	58,236	11,906	28,487	17,055	5,511
	Teak	1,240	204	63	15	-	2	-
	Hardwood	82,929	61,248	58,173	11,891	28,487	17,053	5,511

Source: Statistical Yearbook (2018)

Table 5.17 presents timber extraction by the private sector. These figures shows that extraction of timber by the private sector is significantly lower than by the Myanmar Timber Enterprise. The private sector has extracted the lowest quantity of timber from Magway Region and highest from Mandalay Region and Bago Region, ranging from 3,000 to 4,000 cubic tons per year.

Table 5.17: Timber extraction by private sector (teak and hardwood) by Regions (cubic tons)

Region	2009-2010	2010-2011
Ayeyarwady	1,035	1,287
Bago	3,443	3,730
Magway	277	768
Mandalay	3,071	4,301
Nay Pyi Taw	Data not available	Data not available
Sagaing	2,230	3,321

Source: MIMU Baseline dataset

The recorded reductions in timber extraction by the Government and private sector may not reflect better forest conservation and regulation, but may be the result of a reduction in the available resource, falling demand; and changes in land use and forest accessibility (e.g. through an increase in PAs coverage or oil exploration in Magway restricting available forest lands).

5.13 Poverty

The official poverty line, as defined by the GoM, is 1,509 Kyat per adult-equivalent (Myanmar Living Conditions survey, 2017). Tables 5.18 and 5.19 show that the Ayeyarwady Region is the poorest among the FREDIP Regions (with about one third of its population below the poverty line), while Sagaing and Bago (West) have the lowest percentage of residents below the poverty line. A higher proportion of the urban (than rural) population is below the national poverty line in Sagaing, Bago (East) and Ayeyarwady Regions, while the opposite is the case in the other target Regions.

Table 5.18: Poverty head count ratio in target Regions

Region	Total (%)	Urban (%)	Rural (%)
Ayeyarwady	32.2	33.9	23.1
Bago (East)	20.2	20.9	20.1
Bago (West)	15.9	15.6	15.9
Magway	27	15.8	28.2
Mandalay	26.6	14.1	31.6
Nay Pyi Taw	Data not available		
Sagaing	15.1	16	14.9

Source: MIMU Baseline Data Set

Table 5.19: Monthly per capita expenditure in target Regions in 2012 (Kyat)

Region	Urban		Rural	
	Average household size	Per capita expenditure	Average household size	Per capita expenditure
Ayeyarwady	4.1	36,546	4.5	29,281
Bago	4.5	39,388	4.6	33,895
Magway	4.6	37,705	4.5	28,166
Mandalay	4.8	52,066	4.8	34,140
Nay Pyi Taw	4.5	38,072	4.3	31,883
Sagaing	4.8	44,474	5.0	34,089

Source: Data Set Vulnerability Analysis in Myanmar (9 July 2018)

https://themimu.info/sites/themimu.info/files/documents/Report_Vulnerability_in_Myanmar_HARP-MIMU_Jun2018_ENG_Print_version.pdf

The FREDIP will benefit the rural poor by increasing sustainable forest-based income and livelihood opportunities through plantation forestry and reforestation (Component 1), forest-based timber and non-timber production and CF (Component 2), and ecotourism development attached to PAs (Component 3). However, PAs and CF developed under the Project may impose restrictions on economic activity, potentially affecting the livelihoods of the poor. In accordance with the World Bank ESS-5, a Resettlement Policy Framework (ESMF Annex 11) for CF and plantation/reforestation areas and a Process Framework (ESMF Annex 12) have therefore been prepared to mitigate these potential livelihood risks, and will be confirmed through SSSAs with associated plans for economic displacement (refer to ESMF Annex 15 for SSSA ToRs).

5.14 Labour force

- a) **Employment** - An estimated 25 million people in Myanmar were employed in 2019,⁴⁸ indicating a labour force participation rate of 61.5% for men and 47.5% for women.⁴⁹ The latest (2014) information on employment in the target Regions is summarized in Table 5.20.

The unemployment rates for all age groups and gender are in the range of 3-4%, except for Bago Region. Labour participation rates vary, indicating variable willingness or necessity to engage in paid work. The mismatch between available jobs and willingness to take up employment is greatest in Bago. While natural rates of unemployment are not available for Myanmar, cyclical unemployment is most likely very low as a result of robust economic growth of 8% in 2014 and 7% in 2015.⁵⁰

Table 5.20: Labour participation and unemployment rates in target Regions (2014)

Region	Labour participation rate (%)						Unemployment rate (%)					
	Age 10 and over		Age 15 and over		Age 15-64		Age 10 and over		Age 15 and over		Age 15-64	
	F	M	F	M	F	M	F	M	F	M	F	M
Ayeyarwady	37.2	73.2	40.9	82.3	43.5	85.6	4.0	3.4	3.7	3.1	3.8	3.2
Bago	35.7	72.5	38.9	81.5	42.0	85.4	6.1	4.9	5.7	4.5	5.8	4.7
Magway	49.4	73.4	53.8	82.3	58.5	86.8	3.5	3.1	3.5	2.9	3.6	3.1

⁴⁸ data.worldbank.org/indicator/SL.TLF.TOTL.IN?locations=mm

⁴⁹ data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS?locations=mm

⁵⁰ data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=MM&display=graph

Mandalay	44.8	73.2	48.6	81.7	52.4	85.4	3.3	3.2	3.2	3.0	3.2	3.1
Nay Pyi Taw	46.1	75.0	50.8	84.4	53.7	87.1	3.0	3.0	2.9	2.9	2.9	2.9
Sagaing	49.8	73.9	54.7	83.5	59.1	87.5	4.0	3.5	3.8	3.3	3.9	3.4

Source: Department of Population, 2015

- b) Child labour** - Under Myanmar Law, the minimum working age is 14 years, which corresponds with the ESS 2 requirement. However, ESS 2 stipulates that only people over 18 years old may participate in more hazardous activities.

In all the FREDIP Regions, unemployment rates are lower for the group age 15 and over than for the group age 10 and over, indicating that there are many aged 10-14 who are looking for, but cannot find, work. In Myanmar, 1.13 million children aged 5 to 17 years, or 9.3% of the child population, are working as labourers.⁵¹ They are employed mainly in agriculture (60.5%), followed by manufacturing (12%)⁵² and a broad category that includes wholesale/retail businesses, auto repair shops and other commercial enterprises (11%).⁵³ Many of these children work more than 44 hours per week, and half of them are engaged in hazardous work.⁵⁴

Nearly one quarter of the children with hazardous work are 12-14 years old, who put in very long hours than the older group, in contravention of World Bank ESS-2.⁵⁵ The labour force participation rate among children is 23% higher in rural areas than in urban areas, and children from the poorest consumption quintile were 2.3 times more likely to participate in the labour force than the wealthiest quintile.⁵⁶ Armed conflict, poverty, migration, disaster and food insecurity are considered the major drivers of the child labour phenomenon.⁵⁷

According to the International Labour Organization (ILO), child labour is work that deprives children (any person under the age of 18) of their childhood, their potential and their dignity, and that is harmful to physical or mental development.⁵⁸ It also deprives children from educational opportunities. In accordance with ILO and World Bank standards (ESS 2), FREDIP Labour Management Procedures (LMP) are being prepared (ESMF Annex 8). The LMP requires that the Project shall not employ or engage any persons below 18 years. The FD shall closely monitor this in all aspects of the Project.

- c) Labour participation rates** - The labour participation rates for women are consistently lower than for men, with the difference increasing from the age of 15 years old (Table 5.21). This is likely to reflect the increase in household work for adult women, including childcare. High rural populations and limited means of transport in rural areas are important obstacles to labour participation,⁵⁹ especially for women, who tend to lose mobility after childbirth to care for family. The Regions with higher rates of labour participation are consistent across all age groups and

⁵¹ www.irrawaddy.com/news/burma/600000-children-hazardous-work-myanmar-ilo.html

⁵² www.ilo.org/yangon/press/WCMS_712254/lang--en/index.htm

⁵³ www.irrawaddy.com/news/burma/600000-children-hazardous-work-myanmar-ilo.html

⁵⁴ www.irrawaddy.com/news/burma/600000-children-hazardous-work-myanmar-ilo.html

⁵⁵ www.irrawaddy.com/news/burma/600000-children-hazardous-work-myanmar-ilo.html

⁵⁶ Central Statistical Organization, UNDP and WB, 2020. *Myanmar Living Conditions Survey 2017: Socio-economic Report*. Nay Pyi Taw and Yangon, Myanmar: Ministry of Planning, Finance and Industry, UNDP and WB.

⁵⁷ www.irrawaddy.com/news/burma/600000-children-hazardous-work-myanmar-ilo.html

⁵⁸ www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_531953.pdf

⁵⁹ documents.worldbank.org/curated/en/958621536141390299/pdf/129754-Myanmar-Future-Jobs-Main-Report-Final.pdf

gender. However, differences in unemployment rates are relatively small; and the availability of jobs is proportional to demand for all age groups and gender in each Region.

Table 5.21: Age and gender difference in labour participation rate in target Regions

Region	Labour participation rate (%)								
	Age 10 and over			Age 15 and over			Age 15-64		
	F	M	% difference	F	M	% difference	F	M	% difference
Ayeyarwady	37.2	73.2	36.0	40.9	82.3	41.4	43.5	85.6	42.1
Bago	35.7	72.5	36.8	38.9	81.5	42.6	42.0	85.4	43.4
Magway	49.4	73.4	24.0	53.8	82.3	28.5	58.5	86.8	28.3
Mandalay	44.8	73.2	28.4	48.6	81.7	33.1	52.4	85.4	33.0
Nay Pyi Taw	46.1	75.0	28.9	50.8	84.4	33.6	53.7	87.1	33.4
Sagaing	49.8	73.9	24.1	54.7	83.5	28.8	59.1	87.5	28.4

Source: Department of Population, 2015

d) Forced labour - Forced labour has disappeared from the cities of Myanmar, having once been described as "widespread and systematic" by the ILO.⁶⁰ People in rural areas, however, are regularly forced to work as carriers or construction workers for infrastructure facilities by both formal and informal armed forces.⁶¹ These forces employ civilians, including children, to work on roads and bridges, imposing fines or withholding identity cards from those who refuse.⁶² Some instances involve development projects financed by international organizations.⁶³

Other forms of forced labour in Myanmar include: the forced use of people in the repair and maintenance of public structures; forced and underage recruitment into the armed forces; forced use of people in conflict zones to carry military rations and ammunition between locations; forced use of people to be on duty in warfare strategic locations with responsibility for reporting on enemy intrusion; labour created by land confiscation or by threat of confiscation; forced farming of a crop not voluntarily chosen; trafficking; and debt bondage.⁶⁴

It is not expected that the Project will be involved in activities that will bring about forced labour. In accordance with the World bank ESS-2 on labour conditions, there will be no forced labour of any form (as defined above). The FD shall closely monitor this in all aspects of the Project.

To ensure the reduction of such risks including (but not limited to) health and safety, prohibition of forced labour and restrictions on child labour (depending on age up to 18 years old), a Labour Management Procedure (LMP) has been prepared (refer to ESMF Annex 8).

5.15 Water supply and sanitation

(a) Water supply⁶⁵

⁶⁰ www.refworld.org/docid/4fdb2f271a.html

⁶¹ www.reliefweb.int/report/myanmar/forced-labour-still-very-common-burma-%E2%80%93-ilo-must-put-more-pressure-burma

⁶² www.refworld.org/docid/4fdb2f271a.html

⁶³ www.du.edu/korbel/hrhw/researchdigest/slavery/myanmar.pdf

⁶⁴ www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf

⁶⁵ www.wcmt.org.uk/sites/default/files/report-documents/Meehan%20P%20Report%202011%20FINAL.pdf

Water sources for households are largely determined by topography. In the lowlands, rain-fed ponds are the major water source for domestic consumption. An estimated 65-70% of the national population depend on rainfall, either in ponds or rainwater collection tanks. Existing ponds do not collect sufficient water during the rainy season in many areas to sustain supply throughout the year, especially in the delta and the Central Dry Zone. Severe water shortages are therefore common in the months before the monsoon. The situation has been exacerbated by rising temperatures, later arrival of monsoon rains, and salinization after Cyclone Nargis in 2008. Ponds are usually accessible by animals, meaning that water quality in household ponds is generally very poor.

Shallow, hand-dug wells are another water source common in the lowlands, where water tables are high. They are easily accessible, which makes them also easily contaminated. In the coastal areas and in the delta, shallow groundwater sources are highly saline and not fit for human consumption. Tube wells are expensive to build and maintain, but provide better water quality and security than ponds or shallow wells. In the uplands, the most common water sources are springs and streams.

Tables 5.22 and 5.23 show levels of access to improved drinking water sources in the dry season and rainy season. In all Regions, tube wells or bore holes are the main sources of drinking water in the dry season. Bottled water ranks second. During the rainy season, rainwater collection becomes an additional means of accessing drinking water in all the Regions. However, people still rely on boreholes or tube wells as their main source. Bottled water is especially prevalent in Nay Pyi Taw and Mandalay, which have the largest urban areas within the Project Regions, while rainwater collection is common in heavy rainfall areas such as Bago and Ayeyarwady.

b) Sanitation

Table 5.24 shows the percentage of the population with access to different forms of sanitation. In all the target Regions, improved toilets are used by at least 90% of households. The flush-to-pit latrine is the most commonly used improved toilet in all Regions except Magway, where the pit latrine with a slab is more common.

c) Project benefit to water supply and sanitation

The Project is designed to prevent deforestation and degradation of Myanmar's forests, while intensifying forest restoration through various forest development, forest protection and development of livelihood opportunities. Increasing forest covering in water catchments, whether in highland or lowland areas, should decrease water runoff rates, improve water table recharge, improve water quality and raise the water table, potentially reducing water salinity. These factors will contribute to improved water quality for human consumption and indirectly improve sanitation conditions.

Table 5.22: Percentage of population in households with access to improved drinking water in the dry season in target Regions

Region	Improved (%)									Not improved (%)				Total (not improved)
	Piped water into dwelling	Piped water into yard	Public tap	Tube well or borehole	Protected dug well	Rainwater collection	Bottled water	Tanker/ truck	Total (improved)	Unprotected well	Pool	River	Other	
Ayeyarwady	0.0	0.0	0.0	39.3	3.8	2.7	5.3	2.3	53.4	3.0	27.1	16.4	0.1	46.6
Bago	0.4	0.1	0.0	59.1	7.2	1.1	8.0	0.5	76.4	9.9	9.9	2.1	1.5	23.4
Magway	4.3	5.7	0.8	54.8	8.7	1.3	5.6	0.7	81.9	8.7	5.7	3.6	0.0	18
Mandalay	2.5	3.7	0.2	48.0	11.2	2.1	23.7	0.5	91.9	0.5	4.1	3.5	0.1	8.2
Nay Pyi Taw	0.9	1.3	0.2	59.9	5.1	0.3	27.1	0.4	95.2	0.6	0.3	3.9	0.0	4.8
Sagaing	0.6	9.9	1.2	8.0	11.8	0.9	7.6	0.5	40.5	1.6	5.3	2.2	0.3	9.4

Source: Department of Population, 2015

Table 5.23: Percentage of population in households with access to improved drinking water in the rainy season in target Regions

Region	Improved (%)									Not improved (%)				Total (not improved)
	Piped water into dwelling	Piped water into yard	Public tap	Tube well or borehole	Protected dug-well	Rainwater collection	Bottled water	Tanker/ truck	Total (improved)	Unprotected well	Pool	River	Other	
Ayeyarwady	0.0	0.0	0.0	36.0	3.1	41.1	4.5	0.2	84.9	2.0	4.3	8.7	0.1	15.1
Bago	0.4	0.1	0.0	52.9	6.6	21.8	7.3	0.1	89.2	6.5	2.3	1.5	0.7	11
Magway	4.5	6.1	1.0	52.1	7.5	7.7	5.3	0.2	84.4	8.8	2.9	4.0	0.0	15.7
Mandalay	2.5	3.7	0.2	46.1	8.3	8.0	23.4	0.1	92.3	1.6	2.8	3.2	0.1	7.7
Nay Pyi Taw	0.9	1.2	0.1	59.4	4.5	2.1	27.2	0.3	95.7	0.5	0.3	3.6	0.0	4.4
Sagaing	0.6	10.0	1.2	56.7	11.9	3.1	7.6	0.5	91.6	1.3	4.9	1.9	0.2	8.3

Table 5.24: Percentage of population with access to different types of toilet in target Regions

Region	Improved (%)							Not Improved (%)					Total (not improved)
	Flush, to piped sewer system	Flush to septic tank	Flush, to pit latrine	Ventilated improved pit latrine	Pit latrine with slab	Composting toilet	Total (improved)	Pit latrine without slab/open pit	Flush, to elsewhere	Hanging toilet	No facilities, (open defecation, field)	Other	
Ayeyarwady	0.3	6.2	63.7	3.6	14.2	0.0	87.9	4.1	0.8	2.6	4.5	0.1	12.1
Bago	0.2	19.3	72.8	0.7	0.9	0.0	94.0	0.6	0.4	1.3	1.9	1.8	6.1
Magway	0.4	1.3	21.0	0.0	69.0	0.0	91.7	0.8	0.1	0.0	7.5	0.0	8.3
Mandalay	0.8	30.9	45.3	0.0	16.9	0.1	94.0	0.2	1.2	0.1	4.5	0.0	6.0
Nay Pyi Taw	1.4	11.3	75.9	0.2	8.3	0.0	97.0	0.4	1.3	0.0	1.2	0.0	3.0
Sagaing	1.6	13.3	77.6	0.0	0.0	0.1	92.6	1.1	0.5	0.0	5.7	0.1	7.4

Source: Statistical Yearbook (2018)

5.16 Household energy

According to the 2014 Census, there was a big difference between urban (77.5 %) and rural areas (14.9%) in the use of electricity as the main source of energy for lighting. Also in rural areas, up to 80% of households use wood or charcoal for cooking, and only 17% use electricity or liquefied petroleum gas (LPG). The proportion is larger in urban areas at 46% (Table 5.25). Therefore, a majority of households, especially in rural areas, rely on natural resources, especially forest resources for meeting their cooking and heating needs.

Although energy constraints affect entire households, women suffer more seriously since they have primary responsibility for food preparation and cooking. According to some estimates, females spend three times more than men in transporting fuel and water for the household.⁶⁶

The electricity grid is mostly accessible to households within Mandalay and Nay Pyi Taw Regions (by 63% and 51.6% of households, respectively). Ayeyarwady Region has the lowest number of households accessing the public grid (13.7%). Minimal reliance was recorded on community power grids, cross-border power grids, batteries, candles and generators, except in Magway and Ayeyarwady Regions. Solar power systems are becoming more important for providing electricity, especially in rural Myanmar, where candle usage has significantly reduced.

Table 5.25: Percentage of households with access to different sources of electricity for lighting

	Public grid	Border grid	Community grid	Kerosene	Candle	Battery	Generator	Solar lantern	Solar system	Other
Union	41.2	1.5	6.3	1.3	5.1	12.1	1.9	5.4	22.8	2.4
Ayeyarwady	13.7	0.0	4.9	6.2	7.1	35.2	1.4	6.2	24.4	0.9
Bago	35.6	0.0	1.9	1.0	7.4	16.8	1.5	0.4	32.1	3.2
Magway	36.1	0.0	3.4	0.0	3.3	40.0	1.0	1.5	14.5	0.3
Mandalay	63.0	0.0	2.5	0.0	2.3	6.0	1.7	6.7	16.9	0.9
Nay Pyi Taw	51.6	0.0	1.1	0.0	7.5	6.8	1.8	1.8	28.6	0.9
Sagaing	33.5	0.7	8.7	0.0	0.9	6.4	0.6	5.0	39.4	4.6

Source: Statistical Yearbook (2018)

5.17 Urbanization

Mandalay is the country's second largest city and home to about 6.2 million people. With the start of political transition and opening up to the rest of the world in 2010, Myanmar's cities have begun to grow fast and attract an influx of people from rural areas (Table 5.26).⁶⁷

Myanmar is becoming increasingly urbanized and this trend is expected to continue in the coming decades. Myanmar's level of urbanization is similar to that of India and Bangladesh, with about 33.5% of the population living in urban areas. The urban population is growing faster than the population as a whole, and it is expected that 4 out of 10 citizens will live in urban areas by 2030. 38% of the urban population live in the three largest cities, two of which (Mandalay and Nay Pyi Taw) lie within the FREDIP Regions. The remaining 62% of the urban population live in smaller cities, towns and minor urban settlements, indicating that urbanization is taking place across the country.⁶⁸

⁶⁶ [www.undp.org/content/dam/unct/myanmar/docs/unct mm UNWomen Report Gender%20Situation%20Analysis.pdf](http://www.undp.org/content/dam/unct/myanmar/docs/unct_mm_UNWomen_Report_Gender%20Situation%20Analysis.pdf)

⁶⁷ journals.openedition.org/moussons/4844

⁶⁸ www.asiafoundation.org/publication/provision-public-goods-services-urban-areas-myanmar/

Table 5.26: Urban population in target Regions

Region	Total population	Urban population	% Urban
Ayeyarwady	6,184,829	872,600	14.1
Bago	4,867,373	1,072,336	22.0
Magway	3,917,055	588,031	15.0
Mandalay	6,165,723	2,143,436	34.8
Nay Pyi Taw	1,160,242	375,189	32.3
Sagaing	5,325,347	911,335	17.1

Source: Provision of public goods and services in urban areas of Myanmar

5.18 Access to Finance

Myanmar is an agricultural country with enormous potential, given its rich natural resources and favourable geographic conditions. However, with the increase in urbanization and the challenges faced by households and businesses in agriculture, forestry and other sectors, access to finance and credit facilities is becoming more important.

(a) Myanmar Agricultural Development Bank

Among the government institutions supporting the agriculture sector in Myanmar, the Myanmar Agriculture Development Bank (MADB) plays an important role. MADB is the largest financial institution serving rural areas and financing agricultural activities. It provides seasonal loans to farmers throughout the country. A land ownership document (Form 7) and household registration forms are required to qualify for a farming loan from MADB. An individual or entity with customary tenure cannot qualify. The status of MADB support in targeted Regions is shown in Table 5.27

Table 5.27: Agricultural loans by MADB in target Regions

Region	Year	Seasonal loans (million Kyat)			
		Rain	Winter	Pre-Rain	Total
Union Total	2013-2014	933,979	204,919	19,830	1,158,729
	2014-2015	957,063	177,993	32,430	1,167,485
	2015-2016	916,448	156,963	17,993	109,145
	2016-2017	1,401,600	212,662	16,363	1,630,624
	2017-2018	1,416,704	272,223	18,782	1,707,709
Ayeyarwady	2013-2014	243,563	91,143		334,706
	2014-2015	245,478	98,111		343,589
	2015-2016	232,462	90,196		322,658
	2016-2017	357,984	131,596		489,580
	2017-2018	322,390	125,600		447,991
Bago	2013-2014	219,293	35,588	4,642	259,522
	2014-2015	219,086	17,813	13,813	250,712
	2015-2016	213,510	15,899	5,672	235,081
	2016-2017	333,437	14,564	2,264	350,265
	2017-2018	313,196	45,053	1,536	359,758
Magway	2013-2014	44,268	4,772	864	49,904
	2014-2015	47,261	4,288	1,310	52,859
	2015-2016	50,858	3,989	1,223	56,069
	2016-2017	70,808	5,107	1,285	77,199
	2017-2018	97,165	9,115	1,680	107,960
Mandalay	2013-2014	67,898	11,769	2,937	82,604

	2014-2015	70,082	7,694	2,688	80,463
	2015-2016	66,265	5,834	1,693	73,792
	2016-2017	93,880	7,827	3,006	104,713
	2017-2018	116,624	11,826	4,729	133,180
Nay Pyi Taw	2013-2014	13,493	734	1,077	15,304
	2014-2015	13,693	187	545	14,424
	2015-2016	14,022	71	134	14,227
	2016-2017	20,297	67	117	20,481
	2017-2018	20,456	206	119	20,781
Sagaing	2013-2014	122,228	32,173	5,721	160,122
	2014-2015	130,126	22,227	9,034	161,387
	2015-2016	129,577	17,409	6,052	153,038
	2016-2017	196,790	21,227	4,872	222,889
	2017-2018	217,057	34,353	5,515	256,925

Source: Statistical Yearbook (2018)

Among the targeted Regions, Ayeyarwady, Sagaing and Mandalay have the largest share of agricultural loan. In every targeted Region, the value of agricultural loans is increasing each year. However, the pre-rainy seasonal loan is absent in Ayeyarwady Region.

(b) Mya Sein Young Programme

The Mya Sein Young Programme is implemented by the Department of Rural Development under the MoALI. This programme supports rural households that rely upon agriculture, livestock, vocational works and small trading for their livelihoods. Selected villages within the Mya Sein Young Programme target areas receive 30 million kyats in the form of revolving funds aiming to increase the income of rural communities and support community development. The Programme's implementing status in the FREDIP Regions is summarised Table 5.28

Table 5.28: Implementation status of Mya Sein Young Programme in target Regions

Region	No. of townships with Mya Sein Young Programme	No. of villages benefitting
Ayeyarwady	24	866
Bago	25	287
Magway	24	260
Mandalay	21	456
Nay Pyi Taw	8	80
Sagaing	33	437

Source: GAD Township Profiles (MIMU)

(c) Non-agricultural credit

It is notable that access to non-agricultural credit is much lower than access to agricultural credit in all of the target Regions. Non-agricultural business in Bago (East) have the highest access to credit, followed by Ayeyarwady and Magway Regions (Table 5.29). According to the Myanmar Living Condition Survey, the main source of credit for both rural and urban populations is informal (74% of urban population and 55.2% of rural population) (Figure 4).

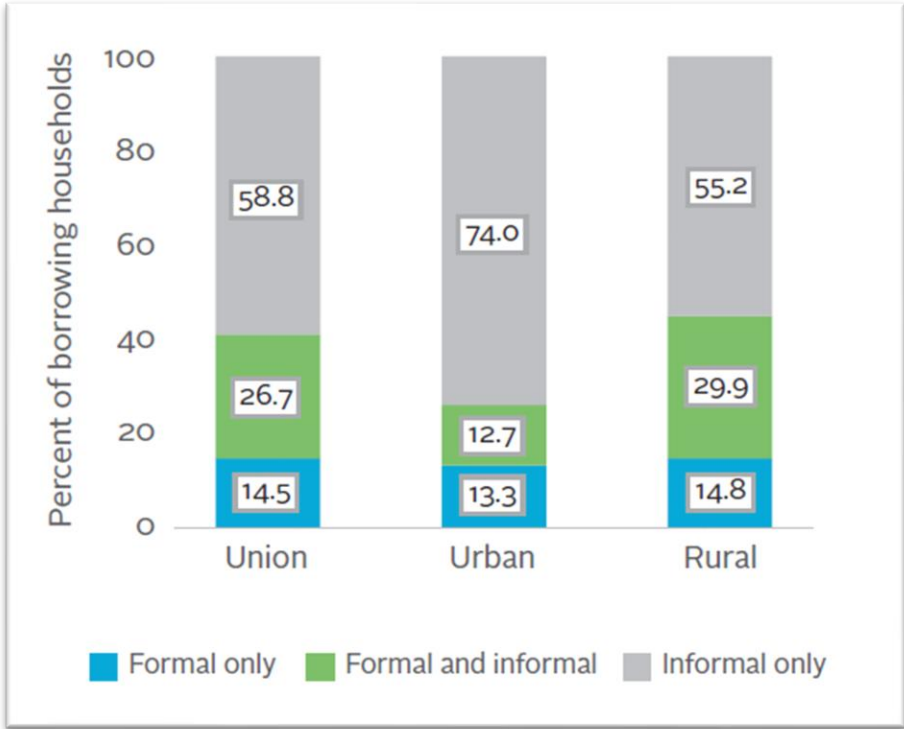
Table 5.29: Proportion of population with access to credit for non-agricultural business (2010)

Region	Percentage of population which can access to agricultural credit	Percentage of population which can access to credit in non-agricultural business
Ayeyarwady	54%	16.3%
Bago (East)	47.1%	20.3%
Bago (West)	31.7%	5.5%
Magway	34.8%	13.3%
Mandalay	34.3%	7.9%
Nay Pyi Taw	No data available	No data available
Sagaing	31.8%	7.2%

Source: MIMU Baseline Data Set

Through Component 1.1 and Component 2, the FREDIP will be providing revolving fund loans for small-scale development. This may be accessible to people with forest-based formal and informal livelihoods. It is recommended that forest-based customary tenure activities are also included, partially filling the gap left by the above-mentioned funds. The official credit sources described are all designed for agriculture and small-scale enterprises, leaving a gap in supply of credit for forest-based livelihoods

Figure 4: Access to formal and informal credits by urban and rural households⁶⁹



5.19 Social protection

Table 5.30 summarises the main forms of vulnerability experiences in Myanmar, ranging from the individual scale to the community and the Region and nation. The Project aims to contribute to a reduction

⁶⁹ Myanmar Living Condition Survey, 2017.

in vulnerability, albeit at small scale under Components 1 and 2, by providing opportunities for women, men and disabled people to take part in forestry activities, such as seedling production, CFE development, NTFP-based livelihoods and employment in plantation forestry. Forest development also provides protection from natural disasters such as flooding, drought and landslides, and has water quality benefits/

In contrast with other low-income countries, female-headed households in Myanmar were not found to be consistently poorer than other households,⁷⁰ though they do have lower average incomes.⁷¹ Low-income households appeared to have the potential to escape poverty if there is a family member with good education, low economic dependency ratio and underemployment rate.⁷² Socioeconomic conditions vary by Region, especially in areas with non-Burma ethnic groups, and their pattern of vulnerability may differ. Table 5.31 provides statistics related to social protection needs, such as dependency ratio, the proportion of population with disability, labour force participation and unemployment rates for the target Regions.

Table 5.30: Types and levels of vulnerability

Type of vulnerability	Level		
	Individual or household	Community or group	District, State, National, Regional or global
Health	<ul style="list-style-type: none"> • Illness • Accident • Disability • Ageing • Death 	<ul style="list-style-type: none"> • Epidemics/pandemics 	
Social	<ul style="list-style-type: none"> • Crime • Domestic violence • Discrimination • Divorce, separation, death or migration of main income earner • Family exclusion due to gender or disability • Lack of funds for education 	<ul style="list-style-type: none"> • Crime, gang violence • Exclusion based on ethnicity, language, religion, political affiliation, gender, sexual orientation 	<ul style="list-style-type: none"> • Ethnic and civil conflict or war • Other social upheaval • Displacement/resettlement
Economic and Financial	<ul style="list-style-type: none"> • Unemployment • Underemployment • Employment instability (casual labour) • Lack of access to land and other inputs for production 	<ul style="list-style-type: none"> • Displacement • Resettlement • Crop failure • Animal epidemic/pandemic 	<ul style="list-style-type: none"> • Economic downturn • Financial system failure • Changes in terms of international trade • Sudden increase of prices of essential goods

⁷⁰ Nishino, Y. and Koehler, G., 2011

⁷¹ www.fao.org/3/a-bl834e.pdf

⁷² Nishino, Y. and Koehler, G., 2011

Type of vulnerability	Level		
	Individual or household	Community or group	District, State, National, Regional or global
	<ul style="list-style-type: none"> Indebtedness 		
Natural and Environmental	<ul style="list-style-type: none"> Loss or pollution of water sources, land and other natural resources 	<ul style="list-style-type: none"> Flood Drought Landslide Other weather-related irregularities Community/group scale resource loss or pollution 	<ul style="list-style-type: none"> Cyclone Earthquake Flood Drought Landslide Other wide-scale natural calamities Pollution

Source: Adapted from Nishino, Y. and Koehler, G., 2011

Table 5.31: Social protection-related aspects in target Regions

Region	Dependency ratios			Proportion of population with any form of disability (age 15-64) (%)	Labour force participation (age 15-64) (%)	Unemployment rate (age 15-64)
	Total	Child	Old age			
Ayeyarwady	54.5	45.5	9.0	7.6	63.8	3.4
Bago	53.3	43.6	9.7	4.2	62.4	5.1
Magway	51.9	41.0	10.9	5.2	71.3	3.3
Mandalay	47.3	38.2	9.1	3.3	67.9	3.1
Nay Pyi Taw	48.8	41.9	6.9	3.2	69.8	2.9
Sagaing	53.5	44.0	9.5	3.3	72.3	3.6

Source: Department of Population, 2015

5.20 Cultural Heritage

Table 5.32 presents the cultural sites in the target Regions nominated as UNESCO World Heritage Sites.

Table 5.32: UNESCO's tentative World Heritage Sites in target Regions

Region	Name of site	Year of listing	Location and notes
Ayeyarwady	None		
Bago	Mon cities: Bago, Hanthawaddy	1996	Bago and Nandawgon Townships
Magway	Wooden monasteries of Konbaung Period: Ohn Don, Sale, Pakhangyi, Pakhanng, Legaing, Sagu	1996	Yesagy and Mindu Townships
	Pondaung anthropoid primate palaeontological sites	2018	Myaing Township
Mandalay	Ayeyawady River corridor	1996	n.a.
	Ancient cities of Upper Myanmar: Innwa, Amarapura, Sagaing, Mingun, Mandalay	1996	n.a.
	Shwe Kyaung wooden monastery	1996	

Nay Pyi Taw	None		
Sagaing	Ancient cities of Upper Myanmar: Innwa, Amarapura, Sagaing, Mingun, Mandalay	1996	n.a.
	Hukaung Valley Wildlife Sanctuary	2014	Includes in both of Kachin State and Sagaing Division
	Pondaung and Ponnya anthropoid primate palaeontological sites	2018	Pale Township

Source: UNESCO, 2020

There are many additional cultural heritage sites and festivals in the target Regions (Table 5.33).

Table 5.33 : Additional cultural heritage sites in target Regions

Region	Name of site	Located places
Sagaing	Shwe Si Gone Pagoda, Moh Nhyin Than Boke Day Pagoda, Baw Di Ta Htaung, Kyauk Kar Shwe Gu ni, Hsu Taung Pyae Pagoda	Monywa Township
	Shwe Ba Tuang and Phoe Win Taung caves and temples	Phoe Win Taung Archeological zone, Salingyi Township
	Myo Daung Zay Di	Shwe Bo township
	A Laung Taw Ket Thapa Pago	Pale township
	Sagaing Hills comprising Soon Oo Pone Nya Shin Pago, Oo Min Thonze, Padamya Ceti and about 536 chaungs (places of religious retreat)	Sagaing township
	Anyar Thiha Taw Pago Da	Khin Oo township
	A Laung Taw Kathapa Pagoda	Kani township
	A Laung Taw Kathapa National Park (one of Asean Heritage Parks)	Kani and Minkin townships
Magway Region	Mya Tha Lun Pagoda,	in Magway
	Kyauk Ser Yone,	Yay Nan Chaung township
	San Da Ku Nany Tha Kyaung Taw Yar Pago	Pwint Phyu township
	Tant Kyi Taung Pagoda	Pakokhu township
	Shwe Tant Tit Tharakhan Pagoda	Pakokhu township
	Thi Ho Shin Pagoda	Pakokhu township
	Set Kain Tel Pago	Minbu township
	Min Hla Fort	Min Hla Township
	Shwe Set Taw Pago and festival	Minbu (Sagu) township
	Yoke Sone Wooden Monastery	Sale Township
	Pakhangyi and Pakhanngge Wooden Monasteries	Yay Sa Gyo Township
Yoke Sone Wooden Monastery	Legaing	
Yoke Sone Wooden Monastery	Minbu (Sagu) Township	
Mandalay	Mandalay Hill	Mandalay
	Mahamyat Muni Pagoda	Mandalay
	Mya Nan San Kyaw Palace	Mandalay

Region	Name of site	Located places
	Bagan archaeological zone comprising 3595 recorded monuments including stupas, temples and other structures for Buddhist spiritual practice, extensive archaeological resources, many inscriptions, murals and sculpture	Bagan
	Shwe Si Gone, A Lo Taw Pyae, Ar Nanda, Thet Ba Nyu, Ka Tawt Palin, Bu, Hti Lo Min Lo, Ma Har Baw Di, Ma Nu Har, Mya Zay Di, Damma Yarzaka, Tu Yin Taung, Hgnet Pyit Taung, Dama Yan Gyi, Su Lar Muni, Pyet Thet Gyi, Dama Yangyi, Law Ka Nandar	Nyaung Oo
	Shwe Kyet Yey Pagoda and Shwe Kyet Kya Pagoda	Amarapura Township
	Yan Kin Taung Pagoda, Shwe Ser Yan Pagoda, Mya Kyauk Pagoda, Tha Khin Ma Mountain, Eain Shin Ma Htan Taw	Patheingyi
	Mway Pagoda	Sint Kaing
	Ta Gaung Archaeological Zone	Thabeikkyin
	Popa Taungkalat Monastery	Popa Hill, Kyauk Pa Daung township
	Shwe Thein Taw, Shwe Tha Lyaung, Ta Mote Pin Shwe Gu Gyi	Kyauk Se
	Shwe Mu Htaw Pan Eaing Pagoda	Ma Hlaing
	Phaung Taw Oo Pagoda	Meikhtila
	Mel Nu Monastery, Nan Myint Mhyaw Sin, Bar Ka Yer Monastery, Sin Kyone Fort	Inn wa archeological zone in Ta Da Oo
Bago	Shwe Maw Daw Pagoda, Shwe Thar Lyaung, Mya Tha Lyaung, Sein Tha Lyaung, Ko Thein Ko Than, Mahar Zaydi, Kyike Pon, Day Sun Pa, Kan Baw Za Thar Di Palace in Bago archaeological zone	Bao township
	Shwe San Taw & Tha Yay Khit Ta Yar Archeological Zone Kay Tu Ma Ti Palace	Pyay Township Taungoo township
Ayeyarwady	Myo Tha Gyi Pagoda	Hinthada Township
	U Par Yel Pagoda	Hinthada Township
	Shwe Mhu Taw Pagoda	Patheingyi Township
	Man Aung Myin Pyi Taw Pyan Pagoda	Zalun township

Source: GAD Township Profiles (MIMU)

A Cultural Heritage Management Procedure has been prepared in accordance with ESS 8, to ensure that these cultural heritage structures and traditions are fully covered under the Project, including procedures for cultural heritage chance finds (refer to ESMF Annex 14).

5.21 Healthcare services

Among the FREDIP Regions, only Mandalay has specialist hospitals. In the other Regions, specialist services are provided in general hospitals. General hospitals are not found in all townships. Stations are the most prevalent type of health facility in the target Regions.

Table 5.34: Ratio of doctors and health workers to population in target Regions

Region	Number per 1,000 population	
	Doctors	Healthcare Workers
<i>National average</i>	0.37	1.47
Ayeyarwady	0.22	1.30

Bago	0.23	1.32
Magway	0.31	1.67
Mandalay	0.35	1.29
Nay Pyi Taw	0.6	1.62
Sagaing	12.7	8.8

Source: Saw, Y. M. et al., 2018

Table 5.35: Public Hospitals in Targeted Regions in 2015-2016

Region	Specialist hospital		General hospital					
			With specialist service		Other		Station	
	No.	Scheduled beds	No.	Scheduled beds	No.	Scheduled Beds	No.	Scheduled beds
Ayeyarwady			5	1,000	25	1,075	80	1,280
Bago			3	600	29	1,082	73	1,168
Magway			5	950	28	948	60	960
Mandalay	15	3,325	9	3,650	40	1,866	59	944
Nay Pyi Taw								
Sagaing			4	800	37	1,441	79	1,264

Source: Statistical Year Book (2018)

5.22 Communication

During the period of the COVID-19 pandemic, consultation and awareness raising activities, including group activities, have been conducted through on-line services and mobile phone messaging. In the target Regions, 50-62% of females use mobile phones compared with 60-75% of males. Similarly, a higher proportion of males (35) have access to the internet than females (21%), albeit at low levels for both sexes (Table 5.36).

However, this still leaves over 40% of females and 25% of males lacking mobile phone access and over 65% of the population in the Project Regions having no internet access. Consultations and awareness raising during the SSSAs and during Project implementation will therefore not be able to rely on electronic means along.

Table 5.36: Percentage of population aged 15 and above using mobile phone and internet

Region	Mobile			Internet		
	Total	Female	Male	Total	Female	Male
<i>Union</i>	62	57	68	24	19	29
Ayeyarwady	64	62	67	15	11	19
Bago	61	55	69	21	17	27
Magway	59	54	65	17	13	23
Mandalay	66	59	74	26	19	34
Nay Pyi Taw	64	57	72	26	21	32
Sagaing	56	50	64	19	14	25

Source: Myanmar living conditions survey (2017)

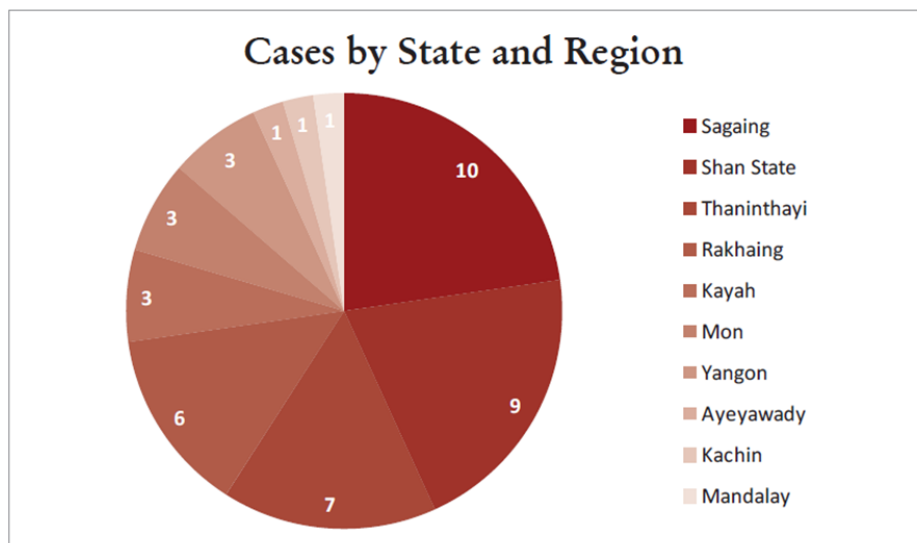
5.23 Gender-based violence

The CEDAW SHADOW Report (2016) highlighted that violence against women is a widespread and institutionalized problem in Myanmar. Women face violence both at home and in public, and there is no legal framework to protect them. The military and police are also preparators of sexual violence against

women, both in conflict and in non-conflict areas. The report records the incidence of violence against women over a nine-month period in 2015 and 2016 (Figure 5). About 300 cases were recorded in only 40 villages. They included cases of domestic violence, non-state actor violence and state-sponsored sexual violence. Of these 300 cases, 44 involved sexual violence.

According to the 2015-2016 Myanmar Demographic and Health Survey, 15% of women aged 15-49 have experienced physical violence since the age of 15. The rate was highest among women who had never received any formal education and those from poor households. Physical violence against married women was also recorded, mostly perpetrated by their husbands. For women who had not married, violence was most commonly perpetrated by their parents. 3% of women aged 15-49 have experienced sexual violence, with their current or former husbands the most common perpetrators.⁷³

Figure 5: Cases of sexual violence in Myanmar by non-State actors (July 2015 to April 2016)⁷⁴



5.24 Climate change vulnerability in Myanmar

According to the Global Climate Risk Index 2020, Myanmar has had the highest weather-related losses in the past two decades, alongside Puerto Rico and Haiti. It is said that Myanmar is also one of the countries most vulnerable to climate change. More frequent and intense flooding events have been seen in recent years and 2008’s disastrous Nargis cyclone caused over 100,000 deaths and affected the lives of millions. The cyclone was the worst natural disaster recorded in Myanmar’s history.

The Central Dry Zone is home to nearly a third of the country’s population. This Zone includes all or part of Magway, Mandalay and Sagaing Regions. According to media reports, temperatures there are projected to rise by up to 3°C after 2040. In the Irrawaddy delta in the south, the mid-level projection for sea-level rise is up to 40 cm by 2050.

⁷³ www.reliefweb.int/sites/reliefweb.int/files/resources/Myanmar%20RGA_Covid-19_Report_FINAL.pdf

⁷⁴ Source: CEDAW SHADOW Report (July 2016)

Based on a 2017 report titled, 'Assessing Climate Risk in Myanmar' by the Worldwide Fund for Nature (WWF), agriculture is the main economic activity in Myanmar and the largest employer of the labour force. The rise in temperature has already severely affected the agriculture sector. The WWF report concludes that crop productivity could decline, as some crops are especially vulnerable to temperature rises. The incidence of drought will likely increase as well, affecting agriculture, livestock, wildlife and communities as they struggle with declining water availability resulting from increased evaporation.

The Irrawaddy delta is a fertile area for rice growing and was once called the 'rice bowl' of the British Empire. Myanmar could at one time feed its entire population and generate a surplus. Unfortunately, cyclone Nargis in 2008 flooded paddy fields with sea water, damaged irrigation systems and destroyed seed supplies. The United Nations Food and Agriculture Organization (FAO) estimated that the cyclone impacted 65% of the country's paddy fields. This is one of the many examples of how the climate crisis can affect food security and the livelihoods of farmers and the public in general. Other issues faced by farmers as a result of climate change include an increase in weeds, diseases and insect pests that may find the new climate more hospitable.

Based on a paper published in the Munich Personal RePEc Archive in 2019 entitled, 'Economic Assessment of Climate Adaptation Options in Myanmar's Rice-Based Farming System', the Central Dry Zone suffers significantly from climate variability due to droughts and floods, resulting in crop destruction and increased vulnerability of farm households.⁷⁵

The FREDIP aims to increase reforestation, forest protection and sustainable community use of forest areas. The ecological result will be positive, in terms of climate change impacts, reducing rates of run-off and increasing groundwater recharge, which in turn impacts on severity and incidence of severe floods; reducing soil erosion; and improving protection from wind hazards and storms.

⁷⁵ <https://theaseanpost.com/article/myanmar-risk-extreme-climate>

6. STAKEHOLDER ANALYSIS AND ENGAGEMENT

Due to COVID-related restrictions, it was not possible to undertake travel or organise large meetings or face-to-face stakeholder engagement in the Project Regions of the type that would normally be a central part of a Social Assessment. Virtual meetings and phone conversations were arranged instead. This section describes the process of virtual stakeholder engagement and the main findings arising. Annex 1 provides a record of the people and groups consulted; Annexes 2 and 4 contain summary notes; Annex 3 contains the questionnaire that was used.

6.1 Stakeholder Engagement Plan

A Stakeholder Engagement Plan (SEP) has been prepared for the FREDIP. It includes a summary of stakeholder engagement process, the components of a grievance redress mechanism (GRM) and a description of how stakeholders will be engaged during implementation. In addition, prior to the commencement of any field activities, an SSSA will be necessary. This will include stakeholder engagement at community, Ward/village, township, District and Regional levels (refer to ESMF Annex 15, TORs for SSSA).

6.2 Stakeholder identification

Two categories of stakeholder were identified for consultation during the SA, in accordance with the World Bank's ESS 10:

- a) Project-affected groups (being individuals or groups who are affected or who are likely to be affected by the project); and
- b) Other interested stakeholders (individuals or groups who may have interest in the project).

The identified groups are summarised in Table 6.1, and included local communities, FDs and PA Rangers, CSOs and NGOs, private sector associations and private companies. In order to understand the potential impacts of CF development, different categories of people within local communities (CF members, non-CF members, ethnic groups, poor people, older people and women) were involved.

Table 6.1: Stakeholder summary

Project-affected groups	Other interested stakeholders
Community members	Regional Government
Women	NGOs and CSOs
Vulnerable people	Politicians
The poor	Media
Ethnic groups	Donor institutions
Forest Department	Plantation associations
PA Rangers	Myanmar Timber Enterprise
Wood-based industries	Agricultural Land Use and Statistics
Consulting agencies	Department
Herbal medicine traders and brokers	Department of Rural Development
NTFP traders and brokers	General Administrative Department
NGOs and CSOs	Microfinance Institutions

6.3 Stakeholder engagement

The assessment engaged with the identified groups to understand the socio-economic conditions and forest use and management regimes in the target Regions, the coordination and support structures provided by CSOs, NGOs and FDs, the nature of forest product processing and trade by the private sector,

the opinions of FDs and CSOs/NGOs regarding the drivers of unsustainable forest management and their suggestions on improvement of forest management.

Invitation letters for the consultations were sent via email five days in advance of the requested interview dates. The engagements were carried out using Zoom or mobile phone, using the questionnaire in Annex 3 where applicable. The findings were integrated into Section 5. Also refer to the SEP for summary findings of the stakeholder engagements conducted across the Project to date.

6.4 Need for further stakeholder engagement during Project implementation

Due to the restricted consultations that could be conducted, a second round of stakeholder engagement will take place in January 2021 with invited representatives of various stakeholder groups. This will again take places ‘virtually’ on a Region-by-Region basis, ensuring that the additional views of different stakeholders (community, CSO, NGO, government officers, etc) are exchanged and discussed. Invitations will be sent out early, and prior to these consultations, documents shall be disclosed on the FD website. Although many of the main documents might be disclosed in English, Executive Summaries will be translated into the Myanmar language and ethnic languages spoken in the respective Region.

The SSSA will require consultation with community members from different social and livelihood backgrounds, both male and female, from different ethnic groups, as well as community leaders, prior to Project implementation. Communities will be informed about the Project and its background, and the GRM mechanisms for different stakeholders and types of grievances, followed by an open dialogue and interactions between the team and the community members. The consultations will be conducted in a culturally appropriate manner. Letters of invitation will be sent out at least five working days in advance, together with an information pack on the proposed Project activities. These will be in the Myanmar language and other ethnic languages, as appropriate for the locations of each consultation.

Many of the FREDIP activities are designed to address the specific needs and concerns of vulnerable groups. The CF programme, for example, will take into account the economic and livelihood concerns of the poor in general, as well as the more specific needs of potentially marginalised sub-groups such as women, ethnic minorities, the elderly and people with disabilities. CF planning procedures and CF management measures are intended to be inclusive, although these aspirations may not always be achieved in practice. The main strategy of the CF activities under the FREDIP is to ensure that planning initiatives and CFUGs do a better job of identifying and targeting disadvantaged and vulnerable groups within a community, and to improve the ability of FD facilitators or supporting NGOs to pro-actively involve such groups. In addition, the Project recognizes the risk of so-called elite capture of benefits and will ensure that planning processes and the monitoring of implementation includes specific indicators to guard against this risk.

6.5 Disclosure

Disclosure of Project information, anticipated impacts and mitigation measures and public consultations with various stakeholders covering the Project-affected parties and interested parties will be carried out in the target Regions, and the comments and suggestions of stakeholders will be collated.

Approved documents (and any updates) that are endorsed by the FD and confirmed by World Bank shall be disclosed on the FD website.⁷⁶ The World Bank shall disclose the published documents on its own

⁷⁶ www.forestdepartment.gov.mm

website after FD disclosure. These documents and/or other adequate information, in the form of Executive Summaries shall be made available to the affected communities and other stakeholders, in a timely manner at accessible locations in the Myanmar language and other relevant local languages, such as Village/Ward/Township administration offices. There may also be a need for verbal disclosure through awareness meetings with vulnerable stakeholders.

Information for disclosure might include, but will not be limited to, the sub-Project description; specific activities and site-specific reports, GRM and rights of stakeholders, and the implementation schedule in the form of a leaflet or booklet, which will be disclosed before the determination of any compensation and resettlement assistance.

7. GRIEVANCE REDRESS MECHANISM

7.1 General

Project-related grievances can often be resolved through clarification at a local level or through clarifications by the Project management. In Myanmar, a GRM already exists, built into each administrative level from the community (Village/Ward) and up to the Presidential (Union) level, as well as via the courts. This provides a known route for community members to submit grievances and potentially allow for community members complaints to be dealt with at a local level.

Rural communities still prefer community-based dispute resolution mechanisms, as these are recognized mechanisms for them that are simple, fast, culturally relevant and appropriate to the local context. Under these mechanisms, agreement is sought via informal talks or negotiations. If a resolution is not achieved between the parties, community leaders or elders generally assist in coming to an agreement. If one of the parties in the dispute is a government entity, then community leaders discuss with the relevant official for a solution. Only when such efforts fail is the issue then raised to the administrative levels for formal resolution. The appearance of specific conflict resolution mechanisms in the recent years, coupled with a lack of accessible and affordable formal dispute resolution mechanisms, means that communities favour traditional mechanisms of resolution.

The existing GRM in Myanmar does not necessarily allow for Project-specific issues to be resolved by the Project management itself, unless they are invited into the system or the grievance is passed across to the Project management to resolve. Furthermore, it may not necessarily incorporate specialized considerations for complainants that are related to an ethnic group(s). To ensure all Project stakeholders have a tailored mechanism by which grievances may be submitted, fully addressed and resolved, and in compliance with the World Bank ESF requirements, the Project will have several GRMs. They will include GRMs tailored towards overall Project grievances, involuntary land acquisition/process framework (ESS1 and ESS5); Project-related workers (ESS2); and mechanisms tailored to the needs of indigenous people and ethnic groups, especially in the context of the CPPF (refer to the SEP for more detail along with specific plans for the LMP (ESMF Annex 8), RPF (ESMF Annex 11) and CPPF (ESMF Annex 13).

7.2 Grievance register

A grievance register will be established for each GRM. This will provide a documented Quality Control system for all Project-related complaints and grievances to be registered and categorized, in order that they can be reported, monitored and resolved rapidly and transparently.

This section outlines the recommended approach to accept, record and resolve complaints coming from the public through the Project and, as necessary, resolving these at Project level and through the documented Myanmar system. FD district/township representatives and staff at PMU level will follow up each complaint to make sure it is being dealt with in accordance with the specified timeframe of the GRM and to ensure that the complainant is notified regularly of the progress of complaint resolution. The register should ideally be checked and updated every two weeks, and not more than every three weeks.

The following information shall be required for grievance registration:

- Grievance registration number
- Date
- Name (not required if complainant prefers to remain anonymous)
- Address
- Contact number
- Gender

- Description of grievance
- Name of person who took grievance:
- Type of grievance
- Directed to?
- Status of resolution
- If resolved, state resolution

8. POTENTIAL SOCIAL IMPACTS

This Social Assessment is based on information gathered from secondary sources, as well as views from virtual stakeholder engagement. The assessment has not identified any significant adverse long-term social concerns arising from the FREDIP, although there may be localized short-term impacts that can be mitigated during final design and implementation. This section presents the social impacts that have been identified, classified according to various socioeconomic categories (rather than by Project components). The SSSAs and SSESAs that will be conducted at the start of implementation should focus on these identified impacts and mitigation measures.

8.1 Livelihoods

The great majority of people in the Project Regions, especially those neighbouring or living within forest areas, rely on agriculture, forestry and fishery for their livelihoods, followed by various forms of trade. Therefore, the FREDIP, which is supporting sustainable forestry, forest-based livelihoods, CF and forest protection, will make an important contribution to the largest livelihoods sector in these Regions.

Forests are an important economic resource for men and women in agricultural communities and provide income and resources for shelter, household economies and food security. Both women and men use forest areas to support different aspects of household livelihoods.

The FREDIP Components will provide significant benefits to males and females in activities supporting the sustainable use of forests and CF management, which will in turn sustainably add value to existing forest-related activities as well as introducing new activities, with potential for increased income generation. All three FREDIP technical Components include activities that support reforestation, sustainable extraction of wood and other forest products, including through private enterprise, which may benefit both male and female participants from local communities. Component 3 activities, which will be implemented in selected PAs already gazetted, will provide further benefit through increased employment opportunities in forest protection and management, as well as not impacting on existing community activities in buffer zones.

8.2 Ethnicity

Myanmar has a diversified ethnicity, with 135 ethnic groups residing in the seven ethnic states and in the seven other Regions that are mainly populated by the Bamar majority. However, they are not necessarily vulnerable or likely to be negatively affected through the FREDIP.

Some activities may involve non-Bamar ethnicities and will require cultural traditions in relation to forests and forest use to be examined and taken into account during SSSAs, and incorporated into activity design and implementation. With an effective community development approach in the CF component, 'forest-dependent' ethnic groups may participate in Component 1 and 2 activities, where sustainable forestry production, plantation and CF development may need to consider building more sustainability into these groups' forest-dependent activity.

To reduce the risk of excluding ethnic groups, a Community Participation Planning Framework (CPPF) has been prepared in accordance with ESS 7 of the World Bank ESF Standards (ESMF Annex 13). The CPPF provides information on potential impacts and mitigating measures to cover both the ethnic populations and the majority Bamar who will be involved in the Project.

8.3 Gender

The number of females is higher than the number of males in the target Regions, as it is for the nation as a whole. The Project has prepared a Gender Action Plan to encourage women's active participation.

8.4 Disability

Close to 5% of Myanmar's total population reported some form of disability in 2014, and the percentage was higher for women than for men across various levels of severity. Disability is classified as a vulnerability in terms of economic marginalization, and people with disabilities should be considered for inclusion in the Project's income generating activities, especially Component 2 where forest product livelihood development and ecotourism allows the integration of people with disabilities; and in Component 1 in activities such as raising tree seedlings.

8.5 Land use and tenancy

Component 1.1 and Component 2 activities will be limited to certain types of land tenure, by Myanmar law.

The Project will work in the following tenure categories:

- Forest land
- Protected Areas under gazettelement

The Project will not work in the following categories:

- Freehold lands
- Grant land
- Farmland
- Town land
- Cantonments
- Village land
- VFV land

Project activities for strengthening PA management will be conducted only in PAs that are already gazetted and are managed by the FD.

8.6 Poverty reduction

The design of the FREDIP is such that, although small, the Project will provide benefit to the rural poor through increased, sustainable forest-based income and livelihood opportunities through plantation forestry and reforestation (Component 1), forest-based timber and non-timber production and CF (Component 2) and ecotourism development linked to PAs (Component 3). However, PAs and CF developed under the Project may impose restrictions that prevent economic activities from taking place, thus risking the livelihoods of the poor. In view of this potential risk, a Resettlement Policy Framework (ESMF Annex 11) for CF and plantation/reforestation areas and a Process Framework (ESMF Annex 12) have been prepared, and will be confirmed through SSSAs with associated plans for economic displacement, as relevant.

8.7 Labour

The population in the Project Regions is categorised as young. This highlights the importance of encouraging employment and income generating opportunities, given that a large population is, or will remain, within working age for the next 30 years or more.

a) Occupational health and safety risk of workers. There is a risk, although minimal, of impacts through construction-related activities, such as:

- Dust emissions from construction trucks, affecting community health;
- Risks of accidents;
- Risk of HIV/AIDS and human trafficking if there is influx of workers; and

- Unsafe space and risk of gender-based (sexual) harassment, exploitation, abuse, violence and other inequalities .

Appropriate mitigation measures are recommended in the Labour Management Procedures (LMP) prepared for the Project (refer to ESMF Annex 8).

- b) Lower payment and reduced employment opportunities** for community labour compared with skilled migrant workers. The Project, by design, will encourage community participation in all activities. This can be further enhanced by encouraging local employment for contracted construction works and for Component 1 related to forest plantations, including the need for equal pay for equal position/work.
- c) Child labour.** Under Myanmar Law, the minimum working age is 14 years, which corresponds with the ESS 2 requirement. However, ESS 2 also stipulates that only people over 18 years old may participate in hazardous activities and the Project LMP states that only workers aged over 18 will be hired for the Project. There may be occasions where children above 14 may help their parents or accompany their parents in carrying out activities related to CF, including collection of NFTP or planting of trees, as part of a broader family task-sharing. This is not considered child labour when occurring outside school hours and not interfering with education. The Project LMP includes screening and monitoring procedures for child labour.
- d) Labour participation rates.** The labour participation rates for women are consistently lower than those for men. The gap increases from the age of 15, probably due to a larger household workload for women, including childcare. Combining high rural population and limited means of transportation in rural areas are some of the important obstacles,⁷⁷ especially for women, who tend to lose mobility after childbirth to care for their family. The Regions with higher rates of participation are consistent across all age groups and gender. However, the difference in unemployment rates is much smaller; and availability of jobs is proportional to demand for all age groups and gender in each Region.
- e) Forced labour.** It is not expected that the Project will be involved in activities that will cause forced labour. In accordance with the World Bank ESS-2 on Labour Conditions, there will be no forced labour of any form (defined above). The FD shall closely monitor this in all aspects of the Project.

The Labour Management Procedures (LMP) prepared for the Project (refer to ESMF Annex 8) set out the way in which Project workers will be managed and cover the above aspects.

8.8 Communications and consultations

Although literacy and numeracy are relatively high in the Project Regions, there is a 50% reduction in enrolment at high school level compared to primary/middle school levels. This will impact on the level of skilled and semi-skilled people of working age, including during the life of the FREDIP.

Over 40% female and 25% males lack mobile phone access and over 65% of the population in the target Regions have no internet access. Consultations and awareness requirements for the SSSA, and subsequently during Project implementation, will therefore not be able to rely on electronic channels.

Care must therefore be taken to ensure that consultation, disclosure and community-based activities are conducted in such a way that those with low literacy or numeracy, that are more marginalized and lack

⁷⁷ documents.worldbank.org/curated/en/958621536141390299/pdf/129754-Myanmar-Future-Jobs-Main-Report-Final.pdf

access to electronic communication can benefit from awareness and Project development activities as much as the literate and well connected.

Religious affiliation can be an important consideration in initial entry for developing community groups and raising awareness within local communities. The Project will need to consider the religion(s) of target populations and will develop appropriate awareness materials and training activities, as well as identifying some of the key cultural heritage structures and requirements during implementation. The Stakeholder Engagement Plan prepared for the Project sets out key consultation principles.

8.9 Water and sanitation

In all the target Regions, many households can access improved drinking water in the rainy season, mostly from tube wells or boreholes. However, in some areas, due to higher water tables, the water supply becomes saline and undrinkable. The Project is designed to prevent deforestation and degradation of Myanmar's forests, while intensifying forest restoration through forest development, protection, and livelihood opportunities. Increasing forest in water catchments can decrease runoff rates, improve water table recharge, improve water quality and reduce water salinity. These will contribute to improved water quality for human consumption and will indirectly improve sanitation conditions.

8.10 Energy

A significant number of households in rural areas, and to a lesser extent in urban environments, use firewood and charcoal as their main energy source. According to some estimates, females spend three times as much time as men transporting fuel and water for household use. Therefore, there is still a reliance on wood products for energy, which can have an impact on biomass depletion in some forest areas.

While this points to a need to reduce the reliance on forest firewood and charcoal resources, this would also impact on people reliant on these supply chains, such as firewood and charcoal sellers. The Project's CF and plantation components allow for sustainable forest development, but at the same time providing scope for potentially managing the quantity of wood products that can be harvested for energy, among other uses. In the cases where forest areas are closed for the extraction of firewood and other products, then either the Process Framework (ESMF Annex 12) or the RPF (ESMF Annex 11) will be applied.

8.11 Climate change

Myanmar is one of the countries likely to be most affected by climate change. At least three of the FREDIP Project Regions are a part of the Central Dry Zone, which is being affected by more frequent and intense floods and droughts, which impact agriculture productivity, income, health and household livelihoods. The FREDIP aims to increase reforestation, forest protection and sustainable community use of forest areas. The ecological results will be positive in terms of climate change impacts, including reducing rates of run-off and groundwater recharge, which in turn will reduce the severity and incidence of severe floods, reduce soil erosion and give improved protection from wind hazards and storms.

8.12 Sustainable private sector plantation development

The Project is expected to promote enabling conditions for investments in private plantations (Component 1), providing significant benefits to private investments in sustainable forestry and plantation forest development. However, there are risks associated with the project that were identified by during the Social assessment. The FD have their own legal framework, internal policies and screening procedures that are designed to avoid social risks such as potential of land-use and other conflict with local communities and their livelihoods. However, there are risks associated with enabling conditions for

investments in private plantations, which are only likely to occur, if certain conditions identified below, are not met. These include, as follows:

i) Moderate to Substantial risk, depending on:

- The composition, roles and functions of the working groups
- The scope and content of policy and regulatory reforms proposed
- The extent and nature of spatial planning for plantations
- ii) Substantial risk if:
 - the stakeholder engagement is not carried out in open and transparent manner
 - Stakeholders do not fully understand the purpose of mapping and delineation and do not support the activity moving forward
 - Physical and/or economic displacement takes place. (In March 2020, the FD have issued a department instruction that requires FD staff conduct a field survey before approving any private plantation establishment in Reserved Forests and Protected Public Forests. The instruction clearly guides to check existing land use of any proposed land for private plantation establishment by the investors. If the land is already occupied by encroached agricultural farming, the land is avoided for private plantation establishment. If unavoidable, the encroached agricultural area is set aside to prevent social conflict or any type of displacement. Hence the physical and economic displacement are unlikely to happen under the project. The project will also do screening before selecting specific sites for project activities and consider that physical and/or economic displacement impacts will be put in the negative list.)

iii) Moderate risk that:

- Access to information may favour more advantaged groups.

A Stakeholder Engagement Plan (SEP) has been prepared and shall be updated, if needed, to set out conditions for consultation, participation and disclosure of plans. A Grievance and complaints redress mechanism will also be set up. Stakeholder awareness campaigns will be regularly conducted (refer to the SEP). Community Participation Planning Framework (refer to ESMF Annex 13) shall be updated and implemented to ensure vulnerable, ethnic and indigenous and other disadvantaged groups are included in consultations and information disclosure.

8.13 Community Forest areas

Component 1 supports the empowering responsible stewardship of forests by communities and creating enabling conditions for Community Forestry; and Component 2 is designed to support new and existing CF and CFUGs in terms of livelihoods activities. These both are expected to provide significant benefits to local communities in sustainable forestry and forest development. However, there are risks associated with the project that were identified by during the Social assessment. The FD have their own legal framework, internal policies and screening procedures that are designed to avoid social risks such as potential of land-use and other conflict with local communities and their livelihoods. However, there are risks associated with the Community Forestry components. The risk levels, identified below, are only likely to occur, if certain conditions identified below, are not met. These include, as follows:

a) Increased forest cover through support to CF

If stakeholder (including ethnic group) engagement is weak during consultations for CF establishment, then the newly reformed CFUGs may not effectively benefit the local community. There is a risk that:

- CF may not be sufficiently adapted to local conditions;
- There may be a lack of trust or confidence in the system, creating conditions unfavourable to expansion of CFs in a socially sustainable manner; and
- If benefit sharing from CFE is not inclusive manner, this will have negative social implications including increasing wealth gaps and putting marginalized groups at risk.

A Guideline for Environmental and Social Risks and Impacts Management in Community Forest Management Planning Processes has been produced (ESMF Annex 3). Based on the existing Standard Operating Procedures for CF, this covers a community-based approach to CF, to reduce the risk of CF activities not benefitting local communities.

b) Facilitation and support to the establishment of new Community Forests (up to 1,000 CFUGs)

The capacity of CFUG members in community forest management will be improved and communities will have improved safety from forest fires. There is a risk of:

- Conflicts on area demarcation between communities
- Loss of income of hunters, farmers and other community members who depend on the CF areas for their livelihoods and may be marginalized by restrictions placed on CF activity; and
- Insufficient FD staff to adequately establish and support CF activities, resulting in ineffectiveness of CFUGs formation and loss of community trust in CF.

c) Support to strengthening existing CFs (up to 2,000 CFUGs)

There is a Low to Substantial risk that

- Re-demarcation may result in conflict between villages and communities, if access to land and livelihood opportunities is restricted as a result.
- The population interested in purchasing CF products is limited and it proves difficult to establish a market for CF enterprises in the initial period; The risk is Substantial if it takes time to establish a strong market.
- User confidence is lost because viable livelihood activities cannot be identified by the CFUGs, or if livelihood stability is uncertain, affecting the sustainable management of CF areas by CFUGs.

A Guideline for Environmental and Social Risks and Impacts Management in Community Forest Management Planning Processes has been produced (ESMF Annex 3).

d) Support to incubating new or strengthening existing CFEs

The following potential impacts were identified:

- Limited market size and weak competitiveness may hinder CFEs from penetrating the market and competing with the existing suppliers. As a result, the livelihood stability of CFE members may be affected, especially if they lack diversified income sources.
- The viability of clusters created to supply the private sector will be at risk if the private sector cannot guarantee the quantity of the timber they will purchase, and cannot commit to long-term purchase agreements.
- Access to information may favour more advantaged and less vulnerable groups, meaning that vulnerable people (e.g. women, poor and the disabled) may not benefit from value chain information access.
- In forming the association and clusters of CFUGs around the private sector, vulnerable people may be marginalised in participation and decision-making, or may not benefit from being member of those association and CFUGs.
- If funding is not used properly used or misused, there may be risks of conflict among CFUG members.
- If funding is over-exploited by influential members of CFEs, benefit sharing will not be equitable among the members.
- Since members of CFEs are basically members of CFUGs, and many of them lack experience in value-added processing and marketing of forest products, they may lack the necessary confidence and capacity to work effectively with private sector buyers.

- CFE members may be exposed to hazardous working environments with noise, and polluting particulate matter.
- The community may be exposed to fire risk during production processes or the storage of raw materials and products.
- Community members may be exposed to water-borne and vector-borne diseases due to poor sanitation and drainage from forest product processing activities.

The SEP includes procedures for information access, disclosure, and transparency:

- The Community Participation Planning Framework (ESMF Annex 13) will be applied to ensure appropriate engagement with ethnic groups that meet the criteria under ESS7.
- A Community Health and Safety Plan has been prepared to avoid, reduce or mitigate the potential adverse risks and impacts on community health and safety (ESMF Annex 10).

8.14 Support to CFUG revolving funds

- Revolving funds should in most cases be self-sufficient, but can become dependent on outside support; access to funds may not be determined in a socially fair manner; funds may be used for short-term commercial gain and there may be misuse, especially in areas where microfinance programs are running; there may also be elite capture or unfair distribution of funds.
- If funding is not used properly or misused there may be risks of conflict among CFUGs members.
- If funding is exploited by influential members of CFEs, benefit sharing will not be equitable among the members.

To mitigate these risks, operating procedures for the management of revolving funds and fund policies have been prepared. The identification of potential livelihood opportunities will be conducted before the revolving funds are supported. Support and training on the marketing of products will follow an inclusive approach that includes vulnerable people. A monitoring and grievance redress mechanism will be established to control misuse of the funding.

8.15 Protected Area forest management

PA areas differ in the level of forest use or enforcement capacity is allowed of local communities. FREDIP Components 3 and 4 will need to consider, as part of implementation, how to enforce protection of the designated forests, at the same time avoiding or reducing risks to local community forest-based livelihoods coming from the PAs. Some of the positive and negative impacts identified through this SA include:

- Development of ecotourism will take place in selected PAs.
- PA management will be more effective if there is increased facilities support to PA rangers.
- Conservation of PAs will be improved as a result of community participatory enforcement.
- The capacity of PA rangers will be improved in PA management, species monitoring, participatory communication with the community and increased interpretation skills.
- In the demarcation of PA boundaries, the access of communities for livelihood purposes may be restricted.
- Buffer zone areas with existing agriculture or agroforestry activities may continue or may need to be acquired.
- With increased tourism, there is a risk of increased generation of waste that will require disposal.

- There may be a threat to the cultural heritages of the local community from an influx of visitors, which may be mitigated through improved capacity of community members in handicraft, traditional activities, tour guiding and hospitality management.
- The capacity of PA staff in eco-tourism and will be enhanced.
- There will be increased employment opportunities for local community members.
- More domestic and international visitors will come to Project0supported eco-tourism sites, leading to increased income to the local communities and community based eco-tourism enterprise and related commercial activity such as accommodation, restaurants, markets and shops.
- Tax revenue from eco-tourism will be generated for the government.

To mitigate potential negative impacts:

- A Process Framework approach has been prepared (ESMF Annex 12) in the event that PA management restricts resource access, although it is recommended that communities be involved in PA management and sustainably use of PAs.
- A Security Management Plan (ESMF Annex 9) has been prepared to ensure that in situations where Project activities may require the use of security personnel to protect people, property or community assets, the Project establishes principles, protocols and procedures to avoid and minimize unnecessary use of force, intimidation or harassment.
- Labour management procedures, including occupational safety mitigation measures, have been prepared (ESMF Section 8.7 and Annex 8).
- A Waste Management Plan (ESMF Annex 7) has been prepared that encourages waste separation and composting (reduce, reuse and recycle).
- The Environmental Code of Practice (ESMF Annex 2) describes practical actions during Project implementation to avoid, minimize and mitigate negative environmental impacts.

8.16 Detection and prevention of illegal forest activities

Component 3.2 of the Project will contribute to the detection and prevention of illegal forest activities by strengthening capacity to curb unauthorized timber extraction from high value natural forest areas and strengthening mechanisms that assure legal timber supply chains.

There are **low to moderate risks** to be addressed under this sub-component:

- The GoM and FD may take time to develop and approve a strengthened legal framework and policies that control unauthorized extraction.
- The extent of capacity building of relevant forestry staff and the enforcement of policy regulations on the ground may be insufficient.
- It may be difficult to sustain effective enforcement of regulations and policies over time, due to lack of available FD officers and lack of empowerment of FD officers in the field.
- Continued demand for high value natural forest products in the marketplace will encourage continued illegal forest resource extraction.

Positive social impacts identified through this SA include:

- The capacity of FD officers in the field will be built, leading to improved identification and enforcement of the law in curbing illegal or unauthorized forest product extraction.
- There will be increased detection and prevention of illegal forest product extraction, especially logging, which may reduce the risk of child or forced labour.
- The Environmental Code of Practice (ESMF Annex 2) describes basic technical guidelines to inform practical actions to avoid, minimize and mitigate negative environmental impacts.

There is a **moderate to high risk** to be addressed, particularly in cases where illegal forest activities are detected and FD enforcers move to curb such activities:

- There is a security risk to FD enforcers charged with detecting, preventing and curbing illegal forest extraction activities, who may face dangerous conflict situations targeted against them by those conducting illegal forest extraction activities. Conversely, although a low risk, FD enforcers and any security personnel accompanying them may resort to unnecessary use of force.
- Due to reduced health and safety practices by those conducting illegal forest activities, FD enforcers may be placed in dangerous, unsafe environments.

The following mitigation measures are proposed:

- A Security Management Plan (ESMF Annex 9) has been prepared to ensure that in situations where Project activities may require the use of security personnel to protect FD enforcement personnel, the Project establishes principles, protocols and procedures to avoid and or minimize unnecessary use of force, intimidation or harassment by such personnel, at the same time as ensuring their protection.
- The Labour Management Procedures (ESMF Annex 8) set out the way in which Project workers will be managed, in accordance with the requirements of national law and World Bank's Environmental and Social Framework, specifically ESS2: Labour and Working Conditions. This will ensure that Project-funded workers (full-time or temporary) comply with occupational safety mitigation measures. This is especially important for security personnel and FD enforcers on the ground, who may be faced with reduced occupational health and safety measures practised by those conducting illegal forest extraction.
- Labour management procedures, which also include and occupational safety mitigation measures, have been prepared (ESMF Section 8.7 and Annex 8).

8.17 Access to finance

Myanmar is an agricultural country with enormous potential, given its rich natural resources and favourable geographic conditions. However, with an increase in urbanization and the challenges faced by households and businesses in agriculture, forestry and other sectors, access to finance and credit facilities is becoming more important.

- The Myanma Agriculture Development Bank (MADB) provides access to credit for rural areas, though this is mainly focussed on agricultural activities and does not serve households with customary tenure.
- The Mya Sein Young Programme (implemented by the Department of Rural Development under the MoALI) supports rural households which rely upon agriculture, livestock, vocational works and small trading for their livelihood.

Through Component 2, the FREDIP will be providing CFUG revolving fund loans for small-scale livelihood development. These will be accessible to CFUG members within forest-based formal and informal livelihoods.

8.18 Social protection

The Project aims to contribute to reducing vulnerability through contributions under Components 1 and 2, by providing opportunities for women, men and disabled people to engage in forestry activities, such as seedling production, CFE development and NTFP-based sustainable livelihoods and, indirectly, employment in plantation forestry. Forest development also provides protection from natural disasters such as flood, droughts and landslides, and brings water quality benefits.

9. RECOMMENDATIONS

This Social Assessment has presented information on the legal and institutional framework of the forest sector in Myanmar, together with baseline data, Project-related impacts and benefits to stakeholders, a recommended GRM and a stakeholder engagement and disclosure strategy.

While Section 8 presented the expected social impact and benefits, together with mitigation recommendations, this section summarizes the impacts and related Plans and Frameworks developed in accordance with World Bank ESS requirements, either as stand-alone documents or attached as Annexes to the ESMF (Table 9.1).

Table 9.1: Issues, plans and ESF-ESS compliance

Issues	Mitigation plan/framework	ESF-ESS compliance
The target locations for various Project activities, except for PAs, are still to be identified. Several site-specific issues still require attention, including stakeholder engagement, site-specific tailoring of activities and task design, consideration of ethnic group participation and potential resettlement impacts and required social mitigations (see also sections 5 and 8 above).	To ensure that implementation at each site is tailored to benefit the local community, and that impacts are identified with mitigation measure incorporated in implementation, and in compliance with the World Bank ESF, SSSAs are recommended. Terms of Reference for SSSAs are in ESMF Annex 15	ESS 1, 2, 5, 7, 8 & 10
All Project Components require engagement of community stakeholders, in capacity building, CF planning, PA development, etc. There are also a number of Government stakeholders, CSOs and NGOs who can provide useful points of views, identify potential impacts and propose mitigation suggestions.	A Project Stakeholder Engagement Plan (SEP) has been prepared that includes a summary of stakeholder engagement conducted, requirements of GRMs and planning for how stakeholders will be engaged during implementation.	ESS 1, 2, 5, 7, 8 and 10
The SA found cases of underage labour and forced labour of various types. In forestry and associated activities, there are requirements to maintain minimum labour conditions. The SA has also identified gender inequalities that may overflow into the workplace, including gender-based (sexual) harassment, exploitation, abuse and violence.	To ensure a safe, secure and healthy work environment that complies with ESS 2, Labour Management Procedures have been produced. To ensure that there is no prejudice in the workplace, based on gender, religious, race, ethnic background, an Anti-Discrimination Policy will also be included as part of the Plan (ESMF Annex 8)	ESS 2
Physical relocation or acquisition of land or structures is not anticipated. However, there may be some economic displacement in CF and plantation forest areas. This may have an impact on	To cover economic losses in forest areas, except for PAs, a Resettlement Policy Framework (RPF) has been prepared. If a resettlement impact is identified	ESS 5

Issues	Mitigation plan/framework	ESF-ESS compliance
<p>livelihoods, resulting in income losses. Most of these will be picked up by the Project by encouraging participation in Project activities, with long-term benefits for affected households.</p>	<p>during the SSSA process, then a Resettlement Action Plan will be triggered, to be prepared in accordance with Myanmar’s legal framework and the World Bank ESF (ESMF Annex 11).</p>	
<p>In PA buffer zones, the strengthening of management may lead to more rigorous policing of boundaries and restrictions on forest resource use. This may result in reduced access by communities living in the forest buffer zone.</p>	<p>If the SSSA and SSESIA identify hindrances in access to natural resources in gazetted PAs, a Process Framework will be applied (ESMF Annex 12).</p>	<p>ESS 5</p>

ANNEXES

Annex 1 - Summary of Consultations

I. Discussions with Forest Departments of Sagaing, Magway, Bago and Ayeyarwady Regions

Important considerations for forest conservation

- Public participation is important in forest conservation.
- Creation of alternative livelihood activities is essential to reduce the extraction of forest products for income.
- Electricity supply and support of wood-burning concrete stoves shall be carried out as much as possible to replace the fuel wood production from the forests which are taken every day.
- Law enforcement should be strong in controlling the illegal logging activities.
- Value-added product production activities should be promoted and encouraged for providing employment opportunities and for increasing the income of community people to reduce the reliance on forest products for their livelihood.
- Industrial development shall also be favoured to reduce the reliance on forest products by creation of employment opportunities for community people.
- Shifting cultivation should be replaced by creation of sustainable income generation activities for shifting cultivators.
- Mobilization trainings are required to provide to FD staff so that the staff can mobilize and persuade well the community members for conservation of forests
- Facility support and some allowance are required for FD staff to enable implementation of CF activities.

Challenges of Forest Departments

- Limited staff to carry out various activities
- Unable to reach the target CF establishments in every year since majority of local people are struggling for their daily livelihood and unable to concentrate in CF management.

Opinion on the impacts to accessibility of cultural heritages by CF establishment

- They do not suppose CF establishment may have impact to the accessibility to cultural heritages by the ethnic groups, vulnerable people.

Experience of FD staff dealing with ethnic groups

- FD staff expressed their opinion upon participation of ethnic groups that ethnic groups get equal access to be CF member and equal right to get benefited from CF. They shared the information that the participation of ethnic groups in CFs of some townships is higher than Bamar in Ayeyarwady Region.

Opinion of FD staff on NGO support

FD staff supposed that NGO support are good in CF activities. They have enough budget and can use resources well. FD staff can also co-ordinate with NGOs and can share their inputs in coordinated CF activities.

FD staff suggested the followings should be improved in NGOs' support for CF:

- (i) Instead of supporting for the initial establishment cost such as digging cost, seedling costs, transport cost etc, the fund support would be more effective if it can be provided according to the success of the maintenance by CF members as per age of the plants grown in CF. That would be sustainable.
- (ii) NGO projects are normally short term. After withdrawal of NGOs, CFs can not run well since they do not have fund. They do not have any production activity that can support for sustainable CF management. Therefore, for sustainability of CF, support of livelihood

development activities should be created for CF members. In addition to supporting of livelihood activities, market linkage shall be established with the Project support to CF members.

- (iii) In some NGO support project, CF members misunderstand that they get the money from planting of trees in CF. They do not get the ownership sense due to the weak approach of the moderator staff from NGOs.
- (iv) In establishment of CFs, the varieties which can be marketed in the short term shall be considered so that CF members can get income fast and can manage well CF activities.
- (v) In supporting for value-added training provisions by NGOs, the raw materials to be used should be available easily and abundantly in the local level. The materials used in making value-added products shall be easily accessible to purchase in local level.
- (vi) The type of the value-added products to be produced from CF enterprises should be local demanded products so that the market for selling these value-added products can be easily accessible for CF members

II. Discussions with PA Rangers from Sagaing Region and Magway Region

These issues and opinions are discussed by PA Rangers from Sagaing and Magway Protected Areas-

Challenges in Protected Area Management

- Insufficient staff for patrolling and conserving in the protected areas
- Lack of skill labours
- Lack of facility support for patrolling around the protected area in Magway, however, in some PA where receive NGO's support such as Chat Thin Wildlife Sanctuary area, the staff receive the motorbikes for patrolling, but still have the difficulty in cost of petrol and maintenance cost of motorbikes.
- Lack of aid facilities for conserving, for example – good camera support is not received and the PA staff cannot take the photo records.
- Extraction of illegal forest products production by the adjacent villages of PAs for the livelihood
- Farming inside PAs

Potential ecotourism activities in PAs

- Bird watching inside the PAs at which the quite large lakes are present inside PAs. (In both of Chat Thin and Shwe Set Taw PAs, there are big lakes)
- Golden deer watching-based ecotourism
- Abundant of wildlife animals are present including the rare animal species in PAs and this fact can be attractive for the domestic and international tourists.
- Road communication are quite good nowadays and it favours to reach the PAs in the short time. Till to PA areas, good road infrastructures have been improved in these days.
- Some guest houses and motels are already established in some protected areas
- Experience of PA staff dealing with ethnic groups
Sagaing-Chat Thin PA Rangers said that ethnic groups would like to conserve the forests and wildlife protected areas with their own management, they do not allow government staff in their conservation areas. Very restrict in conservation even under the same ethnic groups, one sub ethnic group does not allow another sub-ethnic groups to go inside its controlled area. Due to their unwillingness to coordinate, PA Rangers could not manage PA conservation activities in such areas, e.g. Kachin area.

III. Discussions with CSOs and NGOs working for CF and protected area conservation

These issues and opinions were discussed by GEDA, Friends of Wildlife, POPA Lover Association, and Bago Yoma Lover Association.

Major factors encouraging the unsustainable forest management

- Increased expansion of agricultural lands accompanied with increasing population
- Extraction of non timber forest products and some minor woods (e.g.myaw by community members for their basic needs
- Occurrence of frequent forest fires
- Illegal hunting
- Cattle grazing in forest area
- Weak law enforcement
- Poor educational standard of majority of community people not be able to have the awareness easily to maintain the forest
- Unsustainable extraction practices of forest resources
- Lack of the community awareness to maintain the forests
- Lack of the interests of community members due to uncertain benefit from forest management activities
- Less number of CSOs and NGOs working for forest conservation and management
- Corruption of the staff
- Lack of access to electricity favouring to depletion of forest products resulting in deforestation
- Hunting in forest area
- Very limited human resources (FD staff) is challenging for sustainable forest management. Sometimes, the FD staff cannot take the legal actions strongly since they have to worry about their safety even though they found the illegal logging.
- Limited number of staff and some of them are old aged which is incompatible to making forest management and patrolling activities
- Normally, women are good in financial activities like accounting, auditing and they should be provided these responsibilities.
- Women take places normally in nursery management and planting activity

Important actions to be taken for forest management

- Many of reforestation activities are still required to be conducted.
- Awareness raising to community for conserving the forest

Important actions to be taken for PA conservation

- Strong patrolling is important to conserved PAs.
- Law enforcement needs to be strengthened.

Important actions to take for sustainable forest management

- Government led forest plantations activities will have to be implemented as much as possible.
- Broadly implementation of community forestry in the community area is also important.

- Encouraging of community to plant the trees in the home backyards to replace the forest products production as well as to get the foods for households.
- FD needs to make aware of forest laws and regulations to community so that the community can follow these rules and regulations.
- Coordination between the departments is poor and the land map is not identical among the departments. Therefore, there is difficulty in approving the land for CF area.
- In distribution of fuel woods from village supply fuel wood plantations, it should be taking care of even distribution among the community members.
- Illegal logging is important to control of. Law enforcement should be strong.
- Establishment of specialized zones for shifting cultivations should be developed for shifting cultivators to make long settlement of those people and to be able to emphasize on the production of the value-added products based on those bamboo and potential trees for their stable livelihood. In this way, the people from these zones may not move to another area and deforestation will be reduced significantly. The important thing is the plants to be grown in the specialized zone should be short season plant so that the products from these plants can be harvested within short time and the people do not need to wait to get income.
- There are some cases of CFs selling to the private sector. Getting rid of this action is very important to control the forest. Otherwise, the private sector will take out the timber illegally and there will be consequences of deforestation.
- FD provided 20,000 acres of natural bamboo forests to private sector for conservation as CF. However, these private sectors do not focus on conservation at all and they just take out the bamboo from these areas. Some of these private sectors themselves are bamboo distributors/suppliers and hence, they just cut down the bamboo plants and sell. In connection with these private sectors, charcoal making and hunting become prevalent in the forests.
- Community people knows who is doing illegal logging. They know the information on illegal logging and the conduct of illegal logging. But, they did not report these activities and information to the related department- FD. Therefore, involvement of community is important for sustainable forest management.
- The rights to the people who conserves the forests should be created more for the interest of the community people in forest conservation and forest management.
- Hunting in the forest should be prohibited more. The information on hunting and the list of the hunters shall be collected and the strict measures should be conducted to control the hunting in the forest.
- There are some encroached people who make farming, harvest of bamboo, charcoal making, hunting of wildlife animals and other forest products and staying inside the reserve forest areas. When a land is intended to use as new CF area, negotiations with those encroached people challenges for CF establishment. They do not want to leave from the reserved forest areas.

Opinion on the participation of women in CF

- Men normally take the leadership role
- Women also involve in CF, but proportion is much lower than men. Women themselves suppose these forest management works are not relevant with them, some women have interest, but they cannot involve due to household works, some women assume CF

activities cannot provide benefit in the short term and also management works are generally voluntary basis and they do not get money from that.

Opinion on participation of ethnic groups in CF

- Ethnic groups involve in CF as other community members. They get the equal opportunity from CF management, CF access, and in decision making and in receiving of benefit sharing like other CF members. In CF management committees, their involvement is not much prevalent, but is more common as CF members.
- In the area where majority are ethnic people for example, in Ayeyarwady Region, Kachin State and Rakhine area, the involvement of ethnic people is quite high from 70% to higher.

Impact on ethnic groups by CF establishment by CF establishment

- CSOs and NGOs do not suppose there is no impact to ethnic groups by CF establishments.

Annex 2 - List of People Consulted

(a) Consultations with CF villages from four targeted Regions

(i) Pa Dauk Ngote CF, Net Mauk Township, Magway Region, 22 September 2020

No.	Name	Gender
1	U San Htun	Male
2	U Hla Htay	Male
3	U Myint Aung	Male
4	Daw Aye Thwe	Female
5	Daw Mya Yee	Female
6	Daw Tin Tin Kyaing	Female
7	Daw Hla Mel	Female
8	Daw Nyo Wine	Female
9	U Tun Tun Win	Male
10	U Soe Min	Male
11	U Soe Myint	Male
12	Daw Lel HMee	Female
13	U Soe Nyunt	Male
14	U Thein Lwin	Male
15	U Khin Zaw	Male
16	U Tin Shwe	Male

(ii) Bawt CF, Myo Thit Township, Magway Region, 23 September 2020

No.	Name	Gender
1	U Myint Shwe Gyi	Male
2	U Khin Mg Aye	Male
3	U Kyi Khine	Male
4	Daw Myint Myint Thein	Female
5	Daw Tin Lei	Female
6	Daw Ohnmar Khine	Female
7	Daw Hla Hla Win	Female
8	Daw Swe Swe Thinn	Female
9	U Zaw Lin Htun	Male
10	U Kyaw Aung	Male
11	U Aung Ko	Male
12	U Win Myint	Male
13	U Ohne Hlaing	Male
14	U Tun Mya	Male
15	U Myint Wai	Male
16	U Kaung Nyunt Sein	Male
17	U Kyi Mg	Male
18	U Aung Kyaw Soe	Male

(iii) **Shwe Daung Ngwe Daung** CF, Pauk Khaung Township, Bago Region, 24 September 2020

No.	Name	Gender
1	Naw Tin Hla	Female
2	Saw Pan Shwe	Male
3	Naw Aye Mel Tin	Female
4	Saw Maung Tin	Male
5	Saw Aye Saung	Male
6	Naw Min Kyet	Female
7	Naw Tee Nar	Female
8	Salai Kyaw Niang	Male
9	Naw Ma Khine	Female

(iv) **Border** CF, Pauk Khaung Township, Bago Region, 24 September 2020

No.	Name	Gender
1	U Khin Mg Win	Male
2	U Than Aye	Male
3	Daw Naw Htay	Female
4	U Win Htut	Male
5	Ko Zaw Min Oo	Male

(v) **Wa Kone** CF, Pyapone Township, Ayeyarwady Region, 25 September 2020

No.	Name	Gender
1	U Hla Thein	Male
2	U Aye Thein	Male
3	U Naing Lin Htike	Male
4	Daw Zin Mar Lwin	Male
5	U Win Myint	Male
6	U Thaung Oo	Male
7	U Khin Sein	Male
8	Daw Tin Moe Khine	Male
9	U Myint Khine	Male
10	U Thaung Oo	Male
11	U Khin Sein	Male
12	Daw Tin Moe Khine	Female
13	U Myint Khine	Male
14	U Thaung Aye	Male
15	Daw Aye Maw	Female
16	Daw Mar Mar Tin	Female
17	Daw Maw Maw Win	Female
18	U Kyaw Win	Male
19	U Yan Naing	Male

(vi) **Ka Nyin Kone CF, Pya Pone Township, Ayeyarwady Region, 26 September 2020**

No.	Name	Gender
1	U Aung Win	Male
2	U Tint San	Male
3	U Than Hlaing	Male
4	Daw Cho Cho Khaing	Female
5	Daw Zin Mar	Female
6	U San Nyunt	Male
7	Daw Phyu Phyu Thein	Female
8	U Saw Bo Ni Lay	Male
9	U Tin Htay	Male
10	U Kyi Soe	Male
11	U Than Soe	Male
12	U Thein Tun	Male
13	U San Win	Male
14	U Lin Mg	Male
15	U Hla Win	Male
16	U Zaw Min Than	Male
17	U Ko Ko Aung	Male

(vii) **Hnaw Pin Pyant CF, Kant Ba Lu Township, Sagaing Region, 21 September 2020**

No.	Name	Gender
1	U Kyi Aung	Male
2	U Pho Taw	Male
3	U Soe Tint	Male
4	U Aung Tun	Male
5	U Moe Moe	Male
6	U Aung Naing Win	Male
7	Daw Win	Female
8	Daw Tin Mar Khine	Female
9	Daw Khin Mya Hnaung	Female
10	Daw Thidar Win	Female
11	U Nay Soe Aung	Male
12	Daw Myint	Female
13	U Aung Kyaw Wai	Male

(viii) **Ma U Taung** CF, Shwe BoTownship, Sagaing Region, 22 September 2020

No.	Name	Gender
1	U Zaw Khin	Male
2	U Aung Kha	Male
3	U Tin Shwe	Male
4	Daw Ye	Female
5	Daw Wine	Female
6	U Aung Min	Male
7	U Tun Oo	Male

(b) Protected Area villages from two targeted Regions

(i) **Eaing Ma** village, Minbu (Sagu) Township, Magway Region, 24 September 2020

No.	Name	Gender	Category of FGD
1	U San Thaung	Male	Bamar Ethnic
2	U Hla Kyi	Male	Bamar Ethnic
3	U Mg Yi	Male	Chin Ethnic
4	U Win Naing Lay	Male	Bamar Ethnic
5	U Aye Zaw Min	Male	Bamar Ethnic
6	U Soe Khaing	Male	Bamar Ethnic
7	U Zaw Win	Male	Bamar Ethnic
8	U Kyaw Win	Male	Bamar Ethnic
9	Daw Mu Mu San	Female	Bamar Ethnic
10	Daw Ye Win	Female	Bamar Ethnic
11	Daw Soe Aye	Female	Bamar Ethnic

(ii) **Chat Thin** village, Kant Ba Lu township, Sagaing Region, 23 September 2020

No.	Name	Gender
1	U Win Hlaing	Male
2	U Win Zaw Lun	Male
3	Daw Thin Thin Naing	Female
4	Daw Mya Mya Thwin	Female
5	Daw Pyar Cho	Female
6	U Cho Lwin	Male

(c) Private sector

No.	Name	Organization/ Company	Consultation date
1	U Zaw Win	Private Plantation Association	29 Sep 2020
2	U Kyaw Thu	Myanmar Rattan and Bamboo Entrepreneur Association	29 Sep 2020
3	U Ye Min & U Mg Mg Naing	JK MZZ Paper Co.	30 Sep 2020
4	U Soe Win Zaw	Pounamu Bamboo Private Sector Co.	1 Oct 2020

(d) NGOs/ CSOs

No.	Name	Organization/ Company	Consultation date
1	U Kyi Lin	Popa Lover Association (CSO)	21 Sep 2020
2	U Nay Myo Win	Sein Lai Myaing CSO	22 Sep 2020
3	U Thein Saung	GEDA	23 Sep 2020
4	U Myint Aung	FOW (Friend of Wildlife)	22 Sep 2020
	Daw Khin Khin Swe	FOW (Friend of Wildlife)	22 Sep 2020
	U Win Ko Ko Naing Tun	FOW (Friend of Wildlife)	22 Sep 2020

(e) Forest Departments

No.	Name	Designation	Office	Date
	Sagaing Region			
1	U Win Zaw Lun	PA Ranger	Chat Thin Wildlife Sanctuary	15 Sep 2020
2	Daw Kyawt Kyawt Aung	Assistant Director	Regional FD Office, Sagaing	
3	U Myat Win Kaung	Assistant Director	Shwe Bo District FD Officer	
4	U Win Htun Naing	Staff Officer	Kant Ba Lu Township FD	
	Magway Region			
5	U Soe Win Myint	Assistant Director	Regional FD office, Magway	16 Sep 2020
6	U Thet Wai Aung	FD staff	Nat Mauk Township FD office	
7	U Win Aung	Staff Officer	Minbu Township FD office	
8	Daw Tin Moe Swe	PA Ranger	Shwe Set Taw Wildlife Sanctuary	
	Bago Region			
9	U Kyaw Soe Hlaing	Staff Officer	Pauk Khaung FD	17 Sep 2020
10	Daw May Thu Aung	Forest Staff	Regional FD Office, Bago	
11	Daw Khin Pyae Sone Kyaw	Forest Staff	Regional FD Office, Bago	
	Ayeyarwady Region			
12	U Mg Mg Aye	Assistant Director	Regional FD office, Ayeyarwady	18 Sep 2020
13	U Zaw Min Tun	Staff Officer	Pyawone Township FD office	
14	U Jet Mg Mg	FD staff	Pyawone Township FD office	

Annex 3 - Virtual Consultations Questionnaire

A. General Socio-Economic

We would first like to get some understanding of people's everyday activities.

- About how many people are in your community? In about how many households?
- What are the main livelihood activities in the community?
- What are the main crops people grow?
 - Any other crops? Vegetables? Fruit?
- What animals do people raise? For food, for other uses?
- Where else do people get food? Fishing, hunting, foraging, purchase?
- Are there any households who face food insecurity (that is, they do not have enough food throughout the year)? Do they suffer from food insecurity only part of the year, or all year? If only part of the year, what months? What are the causes of their food insecurity?
- Do people earn cash income from those activities? (regular or occasional) Please explain.
- Do people earn income from any other sources? (i.e., salaries, daily wages, remittances, handicrafts, forest products)
- Does anyone in the community process foods or other products for sale (value added activities)? If so, what are they? Where or to whom do they sell those products?
- What percent of households have electricity? Part of the national grid? Mini-grid (if so, what source – hydro, diesel, solar, bio-material, or a mix)? Household solar or other? Is there any difference between groups (ethnic, vulnerable, etc.)?
- What do people use to cook their rice (wood, charcoal, gas, electric rice cooker)? Other food? Is there any difference between groups (ethnic, vulnerable, etc.)?
- Does the community have a school? What level? (primary, secondary?) If not, where do children go to school? How far away? Is there any difference between groups (ethnic, vulnerable, etc.)?
 - About what percent of boys finish primary school? About what percent of boys attend secondary school? Beyond secondary school?
 - About what percent of girls finish primary school? About what percent of girls attend secondary school? Beyond secondary school?
- Does the community have a health center? If not, where do people go for medical treatment? (nearby health center, local practitioner)?
- What religions do people practice in the community? Is there any difference between groups (ethnic, vulnerable, etc.)? [Buddhist, Christian, Muslim, Tribal, etc.]
- Are there any major differences in wealth between CF members and non-members, or between ethnic groups? If so, why do you think this is?
- What % of total population are the different minority groups ? Please specify each group in percentage.

(These above questions will be asked to Community Leaders and community representatives)

B. Land Tenure

We would now like to ask some questions about land use. [should find out in advance from government agencies what is the status of legal land holding in the community, and revise the questions accordingly]

- Do people in the community have any legal land title or other land rights documents? About what percent?
- What are the customary rules in the community regarding land tenure?
 - Ownership
 - Control
 - Inheritance
 - Rental
 - Seasonal use (for example, if fields left fallow, can animals graze freely)
- Does anyone practice shifting cultivation? If so, what group(s)? What type of shifting cultivation? Pioneer type (clear and use plots exhaustively before moving to another site – common in Thailand among Hmong, Lisu, Lahu, Akha, Yao)? Rotational type (established/permanent swidden cultivation – common in Thailand among Karen, Lua, Khamu, H'tin)
- Does anyone live or farm inside the forest? Who? Is it in CF area or protected area? How long have they lived or farmed there? Do they have any legal rights?
- If people practice agriculture inside the forest, how large are their lands? What crops do they grow?

C. Forest and Water Resource Use

- What are the sources for your household water use?
 - Drinking water
 - Washing and bathing
 - Washing clothes
- Are there any irrigated fields? What are the sources for that water? Do you have a water user group?
- What forest products do people in your community use? From what type of forest (CF, reserved forest, protected public forest, protected area system [national park, wildlife sanctuary])? Is it available all year or only seasonal? Do mostly men or women collect each of these?
 - Timber and Bamboo
 - For house construction
 - For other uses (furniture, carts, tools)
 - Fuelwood
 - Charcoal making
 - Wood or other plants (such as rattan, other vines, tree bark) for handicrafts

- Plants for food, such as mushrooms, bamboo shoots (give some examples)
- Plants for medicine (give some examples)
- Animals / animal products for food
 - Collecting insects / honey
 - Hunting
- Leaves or other materials for fodder / or allow animals to forage
- Other (describe)

D. Forest Access, Use and Management

- If there is a CFUG, about what percent of households in the community are members? How does one become a member of the CFUG?
- Does everyone have access to the forests and these products? Or are there differences between members of the CFUG and others, or a difference between ethnic groups?
 - (If unequal access) What are the differences?
 - (If unequal access) Should everyone be allowed the same access?
- Are there any customary rules regulating forest use and management by members of the community? What are those rules? Do they apply to everyone, or just some people? If just to some people, which group(s)?
- Are there any protected public forest areas nearby?
 - If so, how large is that area?
 - If so, does the community have a role in helping conserve that area? How are the responsibilities shared among community members?
- Is there any difference in forest use and forest management between men and women? If so, describe some of the differences?

E. Extraction, Marketing and Trade of Forest Products

- Does the availability of forest products change year after year? Why?
- Do people sell any of the forest products that they collect or harvest?
 - Which products? Rank in order of importance.
 - Are any of these value-added products (handicrafts, process foods, etc.)?
 - For each product:
 - Who makes the decision to sell, the CFUG, the household? Men, women?
 - Does any particular group (ethnic minority, women, etc.)
 - Harvest and sell the product?
 - Make the value-added product for sale?
 - Is the product sold by a group or by an individual household
 - To whom or where do they sell? (what market channels)
 - How much (in quantity) do they sell?
 - What was the most recent price for that product?
- What are the challenges in marketing the forest products?

- Do others from outside the community extract any of the forest products? If so, who, and what products do they extract?
 - People from other, more distant communities
 - Commercial enterprises
 - Small scale, local
 - Large scale, regional or national
 - Do they extract large amounts of each type of product?

G. Support received

- Has the community received any forest related resources (technical assistance, seedling inputs etc) from Government, Donor, NGOs in the past?

H. Any landmine/ UXO risk in the area (to ask in Bago and Sagaing region)

- Any incident of landmine explosion in the area? (Bago and Sagaing Region) How severe of it?

I. Limitations of CF

- Does CF area demarcation limit on the accessibility of CF members, non CF members, vulnerable people, ethnic minorities to non-timber forest products (honey, medicinal plants etc) collection?
- Does CF area demarcation limit on the accessibility of the cultural heritages of ethnic minorities, CF members and non CF members?
- Does CF area demarcation limit on the accessibility of water resources of CF members, non CF members, ethnic minorities and vulnerable people?
- Do CF establishment make advantages/ disadvantages to CF members/ non CF members/ ethnic minorities? If yes, how?

J. Environmental Management

- Do forest Fire happen frequently in the forest? What are the cause of forest fire? Are there any practice for preventing forest fire?
- What do you do with the waste? (Burn/ Bury/ Reuse/ Release into the water resources)
- Do you use herbicides and other synthetic chemicals, including fertilizer, in the forests? In agricultural fields?

Section II. Specific Questions to CF members

Access to forest and Forest Resources

- What kind of CF are your group managing? (agro forestry, mangrove, monoculture plantation, native forests, native forest with crops etc)
- What is the purpose of forming CF group and what are your functions?
- How many of men and women involved as CF members?
- How many of ethnic minorities, disabled, poor, aged are involved as CF members? From which role?
- What are the rules and regulations of CF members in managing the forest, in extracting the forest resources?
- Does everyone have access to the forests and these products? Or are there differences between members of the CFUG and others or between ethnic minority CF members and non-ethnic minority CF member?
 - (If unequal access) What are the differences?
 - Is there any difference in forest use and forest management between men and women in CF group? If so, describe some of the differences.
- How the decisions are made in CF groups? Does all members get the decision making power equally?
- What is the organizational structure and the composition of men and women in your CF group?
- What are the major obstacles for sustainable management of CF by your group?
- How establishment of Cf affect CF members positively and negatively?
- What kind of conflicts present between CF members and non CF members? Why they happened?
- Do forest Fire happen frequently in the CF area? What are the cause of forest fire? Are there any Community Forest Management Plan to prevent forest fire?

Section (III) Questions asked to ethnic minorities' representatives

- Cultivation practices – do they include shifting cultivation or swidden agriculture?
- If they practice shifting cultivation, do they clear new forest lands, or do they go back to areas that were used some years ago?
- If they practice swidden cultivation, how many years do they leave a field fallow before they clear and cultivate it again? How many fields do they have for rotation?
- Do they face any problems now with their traditional forms of cultivation?
- What other livelihood activities do they practice?
- What products do they use from the forests? (see list under Section I)
- Do they harvest, extract, gather these products only for their own use, or also for sale? Which products do they sell? Who sells them (men, women)? How do they sell the products and to whom?
- Has their access to forest land and forest products been restricted in recent years? What do they see as the causes of those restrictions?
- If a CF has been established in their area, do they have access to it?
- Are they able to be members of the CFUG? If not, why not?
- Has the establishment of the CF, or protected forest, led to any changes in their social or cultural practices?

Section (IV) Questions to vulnerable people from CF group & non CF members

(a) Vulnerable people from CF group

To Disabled from CF group

- Do you have the ownership right to the community forest?
- Could you provide your decision in your CF group? Are your decisions are well considered?
- Do you get the equal benefit like other members of CF group from CF?
- Could you able to harvest community forest products in the same way like other CF members?

To poor from CF group

- Do you have the ownership right to the community forest?
- Could you provide your decision in your CF group? Are your decisions are well considered?
- Do you get the equal benefit like other members of CF group from CF?
- Could you able to harvest community forest products in the same way like other CF members?

To aged from CF group

- Do you have the ownership right to the community forest?
- Could you provide your decision in your CF group? Are your decisions are well considered?
- Do you get the equal benefit like other members of CF group from CF?
- Could you able to harvest community forest products in the same way like other CF members?

(b) Vulnerable people from non CF group

To Disabled from non CF group

- o Could you be able to participate in capacity building trainings as other community members? If not, why?
- o Could you be able to participate in community development activities like other community members? If not, why?
- o In making community based decisions, your decisions and suggestions can be provided? Is well considered?
- o Could you get the equal benefit like other community members when there is external support for your community?
- o -Could you be a member of CF? If not, what restricted you to be a member?

To poor from non CF group

- o Could you be able to participate in capacity building trainings as other community members? If not, why?
- o Could you be able to participate in community development activities like other community members? If not, why?
- o In making community based decisions, your decisions and suggestions can be provided? Is well considered?
- o Could you get the equal benefit like other community members when there is external support for your community?
- o -Could you be a member of CF? If not, what restricted you to be a member?

To aged from non CF group

- o Could you be able to participate in capacity building trainings as other community members? If not, why?
- o Could you be able to participate in community development activities like other community members? If not, why?
- o In making community based decisions, your decisions and suggestions can be provided? Is well considered?
- o Could you get the equal benefit like other community members when there is external support for your community?
- o -Could you be a member of CF? If not, what restricted you to be a member?

Section (V) - Specific Questions to Non CF members

- Why you are not a member of CF group?
- Would you like to be CF member? Why or Why not?
- Do community members use the forests differently before and after the registration as CF?
-If yes, why? How?
- Do the changes affect non CF members of the community in positive and negative? How?
- What kind of conflicts present between CF members and non CF members? Why they happened?

Section (VI). Specific Questions to women

- What is the role of women in household, agricultural works, community based decision making and forest management?
- Whether women use the forests differently than men? How?
- Could women get the rights to control over the forest resources?
- Who benefit more between men and women from registration of CF?
- Are women involved in making important decisions about forest use?
- Could you be able to participate in capacity building trainings as other community members? If not, why?
- Could you be able to participate in community development activities like other community members? If not, why?
- In making community based decisions, your decisions and suggestions can be provided? Is well considered?
- Could you get the equal benefit like other community members when there is external support for your community?
- Could you be a member of CF? If not, what restricted you to be a member?

Section (VIII): Questions to CSOs and NGOs working for CF

(NGOs'/CSO's on-the-ground involvement in CF establishment and management)

- How do you support for Community Forest Establishment and Management? (technical/ logistic/ administrative etc)
- How do you support for sustainable forest management?
- Do you collaborate with forest departments and other departments for CF establishment and management? How?

- In your opinion, what is the most important action that forest department take considered for sustainable management of forest?
- In your opinion, what is the most important action that the community take considered for sustainable management of forest?
- What is your role in the management of PA?
- In your opinion, what are the major factors encourage the unsustainable forest management?
- In your opinion, how is the participation of women in capacity building activities? Is there any difference between women and men? If yes, Why there is different participation?
- Do you observe the shifting cultivations in your implementation areas? If yes, how is their rotational system? What kind of crops are grown on those lands? What kind of customary tenure systems are practiced there? Are women recognized in these customary tenure system?
- Do you have experience in working with ethnic minorities in CF establishment? Please share your experience in working with them on the following points.
- Do ethnic minorities participate in CF as other community members? If yes, how many percentage of CF members are ethnic minorities and from which role? If not, why they do not participate?
- Does the CF members of ethnic minorities get equal opportunity in accessing the CF, manage the CF and decision making for CF management and forest resources as other non ethnic minorities of CF members?
- Have you ever observed that the ethnic minorities are affected by establishment of CF?
- If yes, what kind of adverse impacts are caused to ethnic minorities?

X. Questions to Forest Departments

a)FD's contribution to rehabilitation, reforestation, afforestation and pro-forestation

- What are the contributions of the FD in rehabilitation, reforestation, afforestation and pro-forestation (protection of old forests)?
- In your opinion, what kind of economic activities affect the forests in your township?
- In your opinion, what are important to consider for sustainable forest conservation?

b)FD's on-the-ground involvement in CF establishment and management

- What kind of the support FD provide for CF establishment and management?

- What kind of forest management trainings are provided to the CFUGs by FD?
- Which function of forest department needs strengthening?
- Which functions are missing in activities of Forest Department for CF establishment and management? Why those are missing?

(c) FD's technical capacity, financial/human resources to assess and manage risks and impacts

- Do FD support in forest fire management of community? What kind of support are provided?
- How many staffs in your local forest departments? Mention the number of staffs as per division of assignments?
- What kind of support are providing by NGOs and CSOs for CF establishment? training, registration, others?) In your opinion, how is the support of NGOs and CSOs to CF establishment?
- Does local forest department have the experience in handling of the environmental and social risks of project implementation?

- Does local forest departments have trainings programs for improving the capacity in environmental and social management? If yes, who provided? When? What kind of trainings received? How many of staffs joined in those programs?
- What kind of the assets or services were provided by FD to the community in the previous five years?
- (regarding with agro forestry, timber and non-timber forest production and processing)
- Do you have experience in working with ethnic minorities in CF establishment? Please share your experience in working with them on the following points.
- Do ethnic minorities participate in CF as other community members? If yes, how many percentage of CF members are ethnic minorities and from which role? If not, why they do not participate?
- Does the CF members of ethnic minorities get equal opportunity in accessing the CF, manage the CF and decision making for CF management and forest resources as other non ethnic minorities of CF members?
- Have you ever observed that the ethnic minorities are affected by establishment of CF?
- If yes, what kind of adverse impacts are caused to ethnic minorities?

List of the information to be collected from Regional FD department

- How many percentage of cultivating land in the protected forest area?
- Is animal grazing allowed in CF?
- Is hunting is allowed in CF?
- List of private wood based enterprises and their capacity of production /their source of raw materials for processing/ access to market to sell the timber products/ profit from timber processing/ employment in timber industry
- Land Use especially forest cover area according to different type of the forests (protected area, public protected area etc)
- Total area of CFs in township
- Types of CF (natural forest, plantation forest, etc)
- CFs in the forestland area; CFs in other areas
- Forest area brought under management plans
- Number of CFs in township; Number of active CFs in townsh
- Time taken for approval/registration of CF
- How many CF enterprises are present in the region? What kind of enterprises are they-raw materials supply or value added products producing enterprises? Where is the buyers of those products?
- People employed in production and processing of forest products (number)
- How many area of private owned plantation forests are present? What type of trees are grown in those plantations?

- is there any information on ethnic minority involvement in CFs?

Section – X: Questions to PA rangers

- Do you collaborate with NGOs and CSOs for protect area conservation and management? If yes, what kind of collaborations are done? How do you support each other?
- In your opinion, what inhibits the protected area conservation? How they can be improved to conserve the protected forests?
- What kind of economic activities are detrimental to forests in the protected area?
- What are your challenges to manage the protected area- human resources, facilities, weather conditions etc?
- In your opinion, which inconveniences to the local community may be caused by boundary demarcation and signage in PA? In positive way, what benefits can be achieved to community and Protected areas from such activities?
- What kind of eco-tourisms are present in your implementation area? What are they? Are they community led eco-tourism or private led? Who (researchers, students, etc) visited there mostly and how many of the people visited there in a year?
- What kind of eco-tourisms are potential to develop in your implementation area? What are the main strengths of that area to develop eco-tourism activities?
- What sorts of experiences do you have working with or dealing with ethnic minorities? Do you view the ethnic minority use / management of forests positively or negatively? Why?

Section. XI. Questions to Myanmar Timber Enterprise / NFTP buyers/ Wood Based Industries

- Which commercial activities in the township use wood?
- What kind of the value added forest products are produced from wood based industries? Among them, how many percentage is from private and how many is from CF enterprise?
- How many of the wood based industries (either CF enterprise or private) distributing locally and exporting?
- Where do you sell your products?
- Who are your customers?
- Do the private wood based enterprises get the regular flow of timber?
- How many people are employed by each commercial activity using wood?

- What kind of occupational health and safety plans are carried out in your industry?
- What kind of social protections (health/life insurance, severance pay, etc.) are provided to your employees?
- Income earning per year from your industry
- What kind of value added products are produced and distributed?
- Which non timber forest products are bought by outsiders? Their buying prices?
- What is the role of the women in wood processing, marketing, harvesting?

- How will establishment of CFs/CFEs affect MTE?
 - Facilitate MTE activities? Why, or why not?
 - MTE's involvement timber harvesting in CFs?
 - MTE's involvement in CFEs?

- What are the challenges for micro, small- and medium-scale forest-related enterprises?
 - Administrative? Technical? Commercial knowledge/skills? Access to markets (physical/commercial contacts)?

Annex 4 - Socio Economic Profile of surveyed areas

In virtual consultations, the questionnaires were used to assess the specific socio-economic information of CF villages and Protected Area villages. This specific information is described in accordance with different targeted Regions. The CF and Non-CF communities were selected in by the FD as representative communities. The information presented below were used, particularly in the Socioeconomic Baseline (Section 5) to confirm secondary data collection, present more specific information, and analysis where it required. It has been applied as representative socio-economic information of targeted Regions in determining the potential impacts and risks that may be affected by Project activities.

(a) Socio Economic Profile of sample surveyed areas in Sagaing Region

(i) Socio Economic Profile of CF villages in Kant Ba Lu Township, Sagaing Region

o Demographic Information

In Hnaw Pin Pyant village, about 51 households stay. All of the household members are Bamar and 100% Buddhism.

o Livelihood

The main livelihood of this village is agriculture especially in dry land farming. There is no shifting cultivation at all. The crops grown in the dry lands are beans, maize and sesame. There are some wage labours too who are working in banana and watermelon plantations of another area as migrants. There is no value-added productions such as processed food and other products based on the forest products.

o Livestock

Cattles are raised to be used in farming. There is no raising of other livestock. As foods, the villagers purchased the meat of chicken, pork and ducks from nearby village- Nghant Pyaw Taing village.

o Food Security

Many households are poor and village lands are not suitable to grow paddy. Therefore, these households face food insecurity in some short period almost every year normally from April to June. They try to cope this food insecurity by taking the money from others and purchasing the foods. When they receive the money after harvesting of the crops, they give back that money to the borrower.

o Access to Education

The village does not have the government primary school. Only self-help basic primary school is present in the village. Only about 30% of boys and 20% of the girls completed primary education. None of the boys and girls continue studying in middle school level and high school level.

o Access to Health

Villagers go to the nearby village- Hgnant Phaw Taing for health treatment since there is no rural health care Centre in the village. It is about 4 miles far away. Traditional practitioner is also present in that village.

o Electricity Access

Electricity is not accessible in the village. Maize residuals and fire woods are used for cooking in the village.

o Land Use and Land Tenure

None of the people in this village has agricultural land ownership document. This village' agricultural lands

are in the reserved forest area and hence, these encroached farm lands have been collectively established and recognized as CF to protect the farmers legally and to conserve the forests with the involvement of the community. However, only about one third of the farmers involve in CF and the land of the left farmers are still lack of legal recognition. Customary rules and regulations are not set up in managing and decision making over these legally unrecognized lands. Under the lack of legal recognition to the lands owned by the farmers, they can manage their land to grow the crops what they would like to grow without any requirement of involvement of village leaders and village committees. They can hire their lands to others in their own decisions.

Grazing is allowed in both of the farmlands inside CF and outside of CF area.

Forest Access by CF members/ non-CF members/ Women/ Ethnic groups/ by disabled/ old persons

In CF area, both of CF members and non-CF members can access, but regarding with extraction of forest products, only CF members are allowed.

Forest Use by CF members/ non-CF members/ Women/ethnic groups/ disabled/ old persons

Customary rules and regulations for forest use is not set up by members of community.

CF area is bare degraded land and hence, there is no big forest trees. This CF was just established in 2019 and hence, no forest products is available yet. Even fuel wood are collected from the public protected forest area which is about 2 miles distance from the village.

In non-CF forest area (public protected forest area), all of the villagers including the CF members and non-CF members collect wood for construction purpose. Bamboo is not available in this area. Charcoal production is not practiced at all since it is legally prohibited. Bamboo shoots and mushrooms are available sometimes, however, due to very low rainfall, these are available only very few times. Some medicinal plants such as Sin Tone Ma Nwel. Sin Hngar Maung, and Nu Sat are sometimes available from public protected forest area. Insect collection, honey collection, hunting and grazing are not done in forest areas.

In terms of gender, both of men and women collect the medicinal plants and foods from the public protected forest area, however, in the matter of wood production for construction purpose, men do the cutting of the trees.

Forest Management by CF members/ non-CF members/ Women/ ethnic groups/ disabled/ old persons

Similar to forest use, there is no customary rules and regulations for forest management by members of community.

Inside CF area, since CF was very recently established, the CF members can do the works of planting the seedlings and taking care of these seedlings. Both men and women share the responsibility in planting- men in digging holes, transport works and women in planting and carrying of the seedlings. Another CF maintenance works such as pruning thinning cannot be done yet since this area is recently established and no big trees are present inside CF areas. Due to being bare land, forest fire lanes are not required to develop.

(iii) Socio Economic Profile of Protected Area Village in Sagaing Region

o Demographic Information

1007 households stay in the surveyed village (Hnaw Pin Pyant).94% of them are Bamar and the left are mixed blood of Bamar-Indian. All the Bamar are Buddhism Religion and the mixed-blood Indian are Muslim.

- **Livelihood**

Agriculture is the main livelihood. In terms of crops, the villagers grow rice, maize, peanut, sesame, and green gram as cash crops. The main income is from agricultural farming. There are some daily construction workers too in the village and these people do not get regular income since construction activities are occasional. Some people went to Mandalay and Yangon and send the remittance money to their family members. But, they cannot send back that remittance money regularly.

- **Livestock**

Cattles and Buffalos are raised for use in farming. Fowls and chickens and ducks are only for home consumption. Pigs raising is mainly intended for income and is consumed in home as well.

- **Food Security**

There is not food insecure household in this village.

- **Access to Water Resources**

Tube wells inside the village are main water sources for accessing to drinking and household use water. There are some reservoirs in the village, however, due to water scarcity caused by droughts and less rain happening in the recent years, these reservoirs are not relied much. Farming is only rain-fed and hence, no irrigation is done at all. Water User groups are not formed in the village.

- **Access to Education**

The village has the high school in the village. School attendance is found nearly the same between boys and girls- 100% of boys and girls in primary education level, 60% of boys and 50% of girls in middle school level, 25% of boys and 20% of girls in high school level.

- **Access to Health**

Inside the village, sub township hospital is present and hence, accessibility to Health Care Service is said to be easy.

- **Electricity Access**

About 65% of the households in the village access to government supply electricity from National Grid. Since there is some contributions to be contributed by each household in accessing the government supply electricity, some poor households could not access to electricity. The electricity accessible households use electricity for cooking whereas the left 35% poor households use the firewood for cooking.

- **Land Use and Land Tenure**

Nearly 85% of the farming households have land ownership documents in hand. The left 15% do not have land tenure documents, however, there is a custom of recognizing the land developing farmers who also had been continuously growing in the same land for several years as the owner of that land and even he does not have any legal documents. Under this customary tenure, that land owner can manage the land by his own management without the requirement of community decision. In Myanmar culture, men dominate and take the leading role not only in household level but also in community level. Therefore, land ownership titles are under the name of men in almost all of the households. Either in legally recognized land ownership or informally customary land ownership, the children can inherit the land from their parents when their parents passed away or when their parents hand over the lands to the children. Similarly, when husband passed away, women can inherit too.

Settlement in the forest

Some people live in the public protected forest area and there is no living in the reserved forest area. The settlers are people from these townships (Kantbalu, Khin Oo and Shwe Bo). They do not have any legal ownership. They are farming inside the public protected forest areas. These people grow beans, maize and sesame inside these public protected areas.

Forest Access, Forest Use, Forest Management and Forest Production in Protected Area village

Forest Access by CF members/ non-CF members/ Women/ Ethnic groups/ by disabled/ old persons

Since the area is being protected area, all of the people are restricted not to enter the protected area.

Forest Use by CF members/ non-CF members/ Women/ethnic groups/ disabled/ old persons

Due to being protected area, forest product extraction is strictly prohibited. The villagers from this surveyed village follow these rules. Exception is only in the collection of fire wood for household consumption. Hence, there is no production of forest products from protected area.

Forest Management by CF members/ non-CF members/ Women/ ethnic groups/ disabled/ old persons

There are no customary rules and regulations to manage the forest.

Settlement in Forest

There is no settlement in Protected area since it is legally prohibited.

b) Socio Economic Profile of sample surveyed areas in Magway Region

(i) Socio Economic Profile of CF villages in Sagaing Region

Two CF villages from Magway Region were consulted for Social Assessment- (i) Pa Douk Ngote CF village from Natmauk Township and Bawt CF village from Myothit Township.

o Demographic Information

In Pa Dauk Ngote CF village, there are 137 households and all are Bamar. In Bawt CF village, there are 188 households. Both of the villages has Bamar ethnic people as majority. No ethnic people is in Pa Dauk Ngote and only one Mon ethnic people in Bawt CF village as a migrant family member arrived this village after marriage.

o Livelihood

In Pa Dauk Ngote village, about 70 % of the households are agriculture-based households. The left households work as casual workers and migrants – to Thailand and domestic (10 households) and to Yangon (2-3 households). Grocery shop opening in the village and mobile vendor to other villages is also done for livelihood, by just few households (about 5% of total households). There are some households whose family members are working as government staff (about 10% of total households).

In Bawt village, about 50 % of the households are agriculture-based households. The left households work as casual workers and migrants (40%) and small scale of trading (10%).

o Livestock

In Pa Dauk Ngote village, chicken, pig, cattle are raised in the village. Chicken and pig are raised mainly for consumption. Buffalo and Cattle are raised with the purpose of carrying the harvested crops from shifting cultivated farms, carrying of the harvested bamboos and fuel woods. There is no raising of the cattle for selling purpose. General, about 4-5 cattle are owned by a household in average. About 70% of the

households have the cattle. Chicken is raised at least 5 to 20 in a household. Chicken is raised in almost all of the households. Pig is not reared in every household. Only about 50% of the households have the pig. Pig is not reared in high numbers, just 1-2 in a household.

In Bawt village, cattle, pigs and goats are raised in the village for selling purpose. Almost all of the houses rear the cattle and pig. A household has about 5 pigs and about 15 cattle in average. There is only one household that raise the goat where about 50-60 number of goats are raised.

- **Food Security**

Pa Dauk Ngote villagers purchase foods (vegetables and meat) from Nat Mauk town which are about 7 miles distance,. Some households grow the vegetables (Pumpkin, Bottle guard and lady finger) in home and some purchase. In the case of the vegetables which are not able to grown in dry zone are purchased from mobile vendors and from Nat Mauk. Vegetable growing in the village is just for household consumption and to share to neighbour. Its not for commercial purpose.

Similarly, in Bawt village, the people access the foods from the mobile vendors as well as from Myo Thit Town.

In both of the surveyed villages, there is just some minor food insecurity for poor households in the village. However, lack of food is not faced by these households. These households borrow the money from their neighbours or they take the food by credits from the sellers to get the food for them while they do not have money in hand.

- **Access to Education**

In Pa Dauk Ngote village, middle school is opened in this year. Until last year, only post primary school (grade 7) was present in the village. High school is present in the nearby village, however, instead of going there, the high school students in this village continue studying in Nat Mauk high school (town school) since the educational standard is better there and the teachers in that school are better in teaching. About 80% of the high school aged students completed middle school. In the past, the drop rate in middle school is high. Only about 30% of the middle school aged students could continue studying in middle school due to poor livelihood status. In the current, many of the households (about 75% of total households) out migrate to other places within Myanmar in summer season to get income. In continued studying, girl proportion is higher than boy. In high school level, about 30% of the boys and 50% of the girls could continue studying.

In Bawt village, Middle School is present in the village. Except the children who are not in good health, all of the children in the village complete the middle education. In High School level, there is no high school in the village and nearby villages. The high school students go to towns (Myo Thit, Taungtwingyi) and stay there for long months. Almost all of the high school students continue studying in high school levels even the schools are far from their village. Their parents support their children for continuation of high school as much as they can.

- **Access to Health**

In Pa Dauk Ngote village, Rural Health Care Centre is present in the nearby village of 3 miles distance. In Bawt village, Rural Health Care Centre is present inside the village.

- **Electricity Access**

In Pa Dauk Ngote village, the villagers could not access to government supply electricity (national grid). About 80% of the households rely on solar energy. Some of the solar were supported by department of rural development in 2015 as well as some are purchased with their own money. Only about 30% of the

households have solar with high capacity that can be used for watching TV and for lighting. The left 50% has the small solar that can be used only for lighting. One electricity company communicated to village administrator to supply the electricity with their own project, but that company looks not so good and hence, the village does not accept. In 2021 government budget, the electricity supply to this village is targeted to include. Cooking is done only with the fuel wood.

In Bawt village, the village receive the electricity support from NEP Project of Department of Rural Development. All of the households has solar electricity.

Forest Access, Forest Use and Forest Management of Pa Dauk Ngote and Bawt CF villages in Magway Regions

According to the focus group discussions with the community members from surveyed CF villages (Pa Da Ngoke CF village from Net Mauk Township and Bawt CF from Myo Thit township) within Magway Region, the following findings were observed-

Forest Access by CF members/ non-CF members/ Women/ Ethnic groups/ by disabled/ old persons

In non-CF area, everybody can access non-CF area, even the villagers from the far distant area. There is not any discrimination for access to non-CF area based on wealth, age, gender, physical strength.

Similar to non-CF forest area, CF area is accessible by CF members and non-CF members of the village and there is no discrimination too.

Forest Use by CF members/ non-CF members/ Women/ethnic groups/ disabled/ old persons

In CF villages within Magway Region, forest areas are found to be used for extracting the forest products and for collection of the water from the water resources which are inside the forest area.

In terms of forest use in the area of non-CF forest area, there is no difference between CF members and non-CF members in both of Pa Dauk Ngote CF village and Bawt CF village. All of the villagers from two surveyed villages take out myaw (a kind of wood pole), bamboo, bamboo shoots for selling purpose mainly and fuel wood and mushroom are collected for household consumption. In Bawt CF village, Gone Gar (a spice) is also collected for income. Wood extraction is not done in non-CF area as well as CF area.

Only when the villagers need some minor volume of wood for making agricultural equipment and for some minor construction purpose, non-CF members extract some wood from non-CF forest area whereas CF members harvest some of the natural trees grown in each of individually assigned plots within CF area for this purpose. In the matter of heavily use of woods, the villagers from the surveyed villagers go to town and purchase the wood from wood based industries.

Regarding with the forest products extraction from CF area, only CF members can collect the minor forest products such as bamboo shoot, mushroom, etc. Even CF members, these members are also restricted not to extract the bamboo and wood from the CF area.

Hunting is not done in both of CF area and non-CF area since it is restricted too. The above restrictions are applied same to all of the villagers. There is no discrimination in forest use regarding with being ethnic groups, poor, disabled, and old. The only one discrimination in forest use is based on the fact of being CF member.

In terms of gender, there is a bit difference in types of the extracted forest products collected by men and women from the forest. Women collect the minor forest products (bamboo shoots, mushrooms etc) and fuel wood for getting the income and for household consumption whereas men extract the wood for minor construction purpose, for making some agricultural equipment and bamboo and gone gar for selling purpose.

There is no value-added forest products production from CF area as well as from non-CF forest area. All of the forest products currently extracting are extracted as raw materials.

Forest Management by CF members/ non-CF members/ Women/ ethnic groups/ disabled/ old persons

Except in CF area, there is no community conserved forest management.

CF area management is mainly led by CF management committees in both surveyed villages. This committees involve only the men. Women inclusion is found only in CF membership especially who replaces the role of their husbands who passed away. Normally, Myanmar women favour the men to take the leading role and only when their husbands passed away, they take the membership role even though invitation to be membership welcomed to everybody regardless of gender. According to the discussions with some women in the survey, women expressed their seasonal migration as one reason for their inability to join in CFUG as CF member. They are migrating to another areas to get income in the off season and hence, they cannot share their time in CF management despite of their willingness in participation. This reason was given by the disable persons discussed in the virtual survey.

Women take the responsibility of developing the seedlings in the seedbeds, planting activity and weeding in the CF area in the rainy season. Men share the responsibility of digging the holes for planting in the rainy season and pruning works and making the forest fire control lanes inside CF area in the winter season.

In both of surveyed villages in Magway Region- Pa Dauk Ngote and Bawt, almost 100 % of the community members are Bamar ethnic people and very few percentage of ethnic people- about 1 percent. These minorities are migrants who married with the family members from Bamar households from these villages. These minorities are also welcomed for participation in CFUGs. Though these ethnic people do not involve in CFUG, their family members took part as CFUG members. Similar to another CF villages, the participation in CFUG is based on the willingness and the dedicated commitment to follow rules and regulations stipulated for CF members. Every person can be a member despite of their ethnicity, gender, wealth, physical strength. Every member of CFUGs have the equal opportunity in decision making and in getting the benefit from CF.

(ii) Socio Economic Profile of Protected Area Village in Magway Region

One village - Eaing Ma village which is nearby Shwe Set Taw wildlife Sanctuary area - was consulted for the social assessment.

○ Demographic Information

There are 198 households in total. Almost 100% are Bamar ethnic people and only one Chin ethnic people is present who arrived after marriage. As religion, all of the villagers are Buddhism.

○ Livelihood

Main Livelihood of this community is production of forest products. About 75% of total households engaged in the livelihood of harvesting of forest products- bamboo, myaw, thetke throughout the year except in rainy season. Bamboo shoot harvesting and selling is another kind of livelihood which is engaged by about one third of the households in this village.

During the recent decade, Migration become another important income source since agricultural production coupled with the irregular climate and insecure market causes the farmers severe losses in farm profits. About one fourth of the households have the migrants going to Thailand and about 6% of total households have family members migrating domestically especially to Yangon.

- **Agriculture**

In the past, the main livelihood of about 50% of the households in the village was agriculture. Now, only about one third of the households continue working in agriculture.

- **Access to Water Resources**

For household drinking and using, the water is available from Man Chaung Stream throughout the year. It is beside the village.

For irrigation purpose, the villagers apply pump irrigation by digging the borehole in the farms.

- **Food Security**

There is none of the household who are not food secure throughout the whole year. However, there are some few cases of food insecurity for some few months especially in the poor households. These poor households tried to solve this problem by money borrowing from the neighbours or from a Micro Finance Programme (Pact Myanmar Microfinance). Some tried to solve by taking money in advance from another source so they repay to the collectors.

- **Access to Education**

Middle school was opened recently in 2019-2020 and hence, accessibility to middle education is easy. However, school attendance rate is very poor. Only in primary level, high schooling is observed in both of boys and girls with 80%, and in the middle level, it is significantly reduced to 10% of boys and 20% of girls, since majority of households in this village is poor. In accessing to high school which is about 10 miles from the village, the attendance rate was very low in both of boys and girls –only 3% in the former and 5% in the later.

- **Access to Health**

There is a Rural Health Care Centre in Let Pa Daw village, 1 mile from this village. In the coming year, a rural health centre will be established in this village too.

- **Electricity Access**

Electricity will be able to access in the coming year. Currently, the village rely only on solar energy. Among all households, about 50% of HH own the higher power of solar energy (100Watt) and the left poor households can use the low power solar energy (50 Watt).

- **Land Use and Land Tenure**

Land Ownership document is legally recognized in Myanmar for owning the land and for doing management on that land. Many people in this village has this document in hand and they can get loan from government agricultural development bank by giving this document as a collateral. There are some farmers who do not have that document. Even though in the absence of the legal land ownership documents, this village practices of customary tenure that recognizes the continuing cultivators as the owners and the inheritance rights to his children.

Forest Access, Forest Use and Forest Management of Protected Area village in Magway Region

- **Access to Forest**

This village is inside Shwe Set Taw Wildlife Sanctuary Area. Even though it is legally prohibited the extraction of forest products and wildlife animals from protected area, the villagers are heavily accessing this protected area for their daily livelihood since their main livelihood depends on the income received from

selling of the forest products. Everybody has the equal right to access and to collect the forest products. There is no customary rules and regulations regarding with access to forest and extraction of forest products.

- **Forest Use**

From Shwe Set Taw Wildlife Sanctuary area, the villagers collect the bamboo, myaw (poles), fuelwood, thetke intensively throughout the year for getting income purpose. Not only from this village, but also from other adjacent villages, the people come and collect these products year round. Bamboo shoots is also collected, however, it is mostly available only in the rainy season.

Respondents mentioned that they make the furniture with the wood collected from the protected area and sell if there is customer' order. But, its seldom and not frequent.

As minor use, few amount of woods for making agricultural equipment to be assembled in bullock cart and few amount of the medicinal plants are extracted from this Shwe Set Taw Wildlife Sanctuary area.

Grazing is done inside this area too to feed the cattle. Hunting is also done despite of prohibited activity in protected area. However, the hunting here is not for commercial purpose. Its just done for household consumption and sharing of meat to neighbours.

There is no use of water from water resources within PA area. The village get the drinking water from the stream beside the village. For irrigation, they use pumped water received from boreholes in the farms.

- **Forest Management**

Only extraction of forest products is done in the protected area by the community. No community conservation activities are practiced by community members.

- **Settlement in PA**

There is no settlement in the protected area at all since all of the encroached people in the protected area were taken action strongly in the past.

c) Socio Economic Profile of sample surveyed areas in Bago Region

Socio Economic Profile of CF villages in Bago Region

Two sample CF villages were surveyed for social assessment – Shwe Daung Ngwe Daung CF village and Border CF village. Both of them are from Pauk Khuang township.

There are 101 households in Shwe Daung Ngwe Daung CF village and 75 households in Border CF village. The overwhelming majority of the residents in Shwe Daung Ngwe Daung village is Karen about 98%. Chin and Bamar are found as people in Shwe Daung Ngwe Daung with only 2 Chin ethnic people and 5 Bamar people.

Contrast to Shwe Daung Ngwe Daung, overwhelming majority of Border CF village is Bamar which constitutes of 97% of total population. As ethnic groups, only one Narga,1 Chin,1 Kayin are observed.

- **Livelihood**

In Shwe Daug Ngwe Daung village, main livelihood of all households in this village is **shifting cultivation**. Second most important livelihood is extraction of Boma Yazar, Elephant Yum and bamboo from the forest. Boma Yazar and Elephant Yum are available only in the rainy season, but bamboo is harvested throughout the year. Another livelihood are remittance money and working as government staff, but these proportion are very less. Family members from only 2 households went to Singapore as international migrants, however, domestic migration is a bit higher with about 14-15 households to other cities of Myanmar to

work in garment factories and other companies. There is only 3 government staff in this village -1 teacher, 1 village administrative staff and 1 security guard in village school.

In Border village, main livelihood of all households is **shifting cultivation**. Second most important livelihood is extraction of Boma Yazar, Elephant Yum and bamboo from the forest. Boma Yazar and Elephant Yum are available only in the rainy season, but bamboo is harvested throughout the year. These forest products are sold to the collectors that come to the village and collect. There is no migration either international or domestic. None of the value-added products is produced and sold since majority are poor and they cannot invest. There are no staff working in government and private sector at all in this village

- **Food Security**

In Shwe Daung Ngwe Daung village, the villagers access the food from (vegetables and meat) mini track and motorbike vendors that come to villages and sell every day. They also grow some vegetables in their home backyards for household consumption. This majority of the population in this village is poor and hence, food insecurity is prevalent to many HH in some period, however, this is not severe until starvation happened. At that period, they borrow the money from their neighbour villagers and solve this problem.

In Border village, the villagers access the food from (vegetables and meat) mini track and motorbike vendors that come to villages and sell every day. They also grow some vegetables in their home backyards for household consumption. This majority of the population in this village is poor and hence, food insecurity is prevalent to many HH in some period, however, this is not severe until starvation happened. At that period, they borrow the money from their neighbouring villagers and solve this problem.

- **Access to Education**

In Shwe Daung Ngwe Daung village, Middle school is present in the village. It has been established in 2017. Before that, only post primary education (Grade 7) is accessible in the village.

In Bawt village, Middle school is present inside the village. It has been established in 2017. Before that, only post primary education (Grade 7) is accessible in the village. Primary School is present in the village. Middle School is in Shwe Daung Ngwe Daung village which is about 2-3 miles distance and High school is in Pauk Khaung town which is about 27 miles distance. Almost all of the children in the village complete the primary education. However, the school completion rate is reduced in middle school, about 80% of the middle school aged children completed the middle school since middle school is not in the same village and some drop out to help their parents. The high school attendance rate is very low since it is very far to go to Pauk Khaung and the students have to stay in camps for long months throughout the study years. It costs a lot (about 1,300,000 kyats) to stay in camps and to continue studying in high school level. Therefore, only about 3% of high school aged students can continue the high school level.

- **Access to Health**

In Shwe Daung Ngwe Daung village, Rural Health Care Centre is present in the village.

In the case of Border CF, Rural Health Care Centre is present in Shwe Daung Ngwe Daung village which is 2-3 miles far from the village. There is no health staff in this village.

- **Electricity Access**

In Bawt village, there is no electricity available from national grid. About 50% of the households use the solar energy in the current. There are some few poor households who cannot afford to purchase the solar and battery. In the previous five years, the villagers received the donated solar. At that time, only the households who received household registration forms could access that donated solar. Therefore, only 48 households get the donated solar. After 5 years, some of those donated solar are damaged due to the

poor maintenance of the villagers and hence, some need again the solar. Now, Department of Rural Development is trying to support the solar to the villagers by subsidize approach (the villagers has to contribute 50,000 to 100,000 kyats per household depending on the capacity of the solar). However, due to COVID-19 impact, the international ships could not transport the solar to Myanmar and this programme was cancelled. The poor households who cannot access the solar by their own money are still lack of electricity in their home and still relying on the fire for the light in house.

Forest access, Forest Use and Forest Management of Shwe Daung Ngwe Daung and Border CF in Bago Region

Forest Access by CF members/ non-CF members/ Women/ Ethnic groups/ by disabled/ old persons

CF area is accessible by CF members and non-CF members of the village. The accessibility to CF area does not discriminate on the marginal vulnerable people (women, disabled, old persons , the poor and ethnic groups)

In non-CF area, everybody can access non-CF area, even the villagers from the far distant area. Similar to CF area, there is not any discrimination for access to non-CF area based on wealth, age, gender, physical strength.

Forest Use by CF members/ non-CF members/ Women/ethnic groups/ disabled/ old persons

According to the consultation with FGDs with Bawt and Shwe Daung Ngwe Daung community, the following were observed.

In CF villages within Bago Region, forest areas are found to be used for extracting the forest products and for collection of the water from the water resources which are inside the forest area.

Regarding with the forest products extraction from CF area, accessibility is different between CF members and non-CF members. In CF area, only CF members are allowed to collect minor forest products such as some medicinal plant (Bome Ma Yar Zar) and foods (Elephant Yum etc). However, the extraction of major forest products (wood, bamboo), hunting, charcoal making and grazing are prohibited inside CF area to both of CF members and non-CF members to conserve the CF area. No production of wood is yet done in CF area since their CFs are young- around 3 years old.

In non-CF forest area, minor forest products and bamboo are harvested and collected by all of the villagers from surveyed villages as well as by other villagers from other villages for getting their income. They all collect the fuel wood also, but its for only home consumption. Wood extraction from the forests is rare and it happens only when the villagers need for house construction and repairing, and for making furniture for their homes. Illegal extensive logging of fuel wood, wood and making of charcoal are not conducted by the villagers from the surveyed villages in non-CF area since it is legally prohibited.

Hunting is not done in both of CF area and non-CF area since it is restricted too.

The above restrictions are applied same to all of the villagers. There is no discrimination in forest use regarding with being ethnic groups, poor, disabled, and old. The only one discrimination in forest use is based on the fact of being CF member.

In terms of gender, there is a bit difference in types of the extracted forest products collected by men and women from the forest. Women collect the minor forest products and fuel wood for getting the income and for household consumption whereas men extract the wood for construction purpose and bamboo for selling purpose.

There is no value-added forest products production from CF area as well as from non-CF forest area. All of the forest products currently extracting are extracted as raw materials. The minor forest products

(medicinal plants and foods) are sold to the mobile vendors coming to the village for receiving the household income. Bamboo is sold to the collectors who come to the village.

Forest Management by CF members/ non-CF members/ Women/ ethnic groups/ disabled/ old persons

Except in CF area, there is no community conserved forest management. Only in CF area, CF members conducts the planting of the seedlings and other maintenance works such as weeding, fertilizer application, pruning, thinning and fire control lanes development works.

In CF management, the women are found less participated as members. Due to the men dominated culture of Myanmar, normally, men involved as members and only in the women headed houses, women involve as CF member. Women take the responsibility of developing the seedlings in the seedbeds, planting activity and weeding in the CF area in the rainy season. Men share the responsibility of digging the holes for planting in the rainy season and pruning works and making the forest fire control lanes inside CF area in the winter season.

In two of surveyed villages- Shwe Daung Ngwe Daung and Bawt, Shwe Daung Ngwe Daung village is comprised of Kayin ethnic people by about 95%. The remaining minor proportion includes Chin ethnic people and Bamar ethnic people. That proportion is different in Bawt village at which majority of village population is Bamar. In both of the surveyed villages, the participation as CF members is based on the willingness and the dedicated commitment to follow rules and regulations stipulated for CF members. Every member of CFUGs have the equal opportunity in decision making and in getting the benefit from CF. Currently, not much benefit in monetary value is received from CF except in selling of pruned branches from CF area. When these pruned branches to non-CF members for used in village ceremonies, CF members receive monetary benefit. In addition to money benefit, CF members could use these pruned branches when pruning is done in CF area.

Not only the CF members, but also non-CF members get benefited from CF establishment since the pruned branches are sold to them with discount price which is about one third lower than the market price.

d) Socio Economic Profile of sample surveyed areas in Ayeyarwady Region

Socio Economic Profile of CF villages in Ayeyarwady Region

Two sample villages were surveyed for social assessment – (i) Wah Kone CF village and Ka Nyin Kone CF village. Both of them are from Phya Pone Township.

o Demographic Information

194 households stay in Ka Nyin Kone village. Among them, 85% are Barma and the left is comprised of 10% Karen ethnic people and 5% Rakhine ethnic people. In Wa Kone village, there are only 95 households. In terms of ethnicity, 98% is found as Bamar. Ethnic groups are very few in this village- only 1% of Karen and 1% of Rakhine.

o Livelihood

Gardening of coconuts is the main livelihood of Ka Nyin Kone village. This coconut gardening provides the regular income to the villagers. There are some households that are working as casual labours and working as migrants in Yangon. These remittances are seen as another important income source for the households in Ka Nyin Kone village, but not regular since these migrants cannot send back the money regularly.

In Ka Kone village, fishing, catching crabs, gardening and casual labours in fisheries are found as the main

livelihood activities.

- **Agriculture**

The main crops grown in **Ka Nyin Kone** village are cucumber, gourd, and roselle. Mango and pineapple are grown in the home gardens. In **Wa Kone** villages, cucumber, gourd, roselle and beans are mainly grown. Another crops grown inside the home gardens are coconut, areca nut, bana, mango and guava. Rice cultivation was done in these villages intensively, however, due to the destructions of saline water as a result of being located in costal area, their paddy farms were affected by saline water and the losses were suffered a lot.

- **Livestock Rearing**

For getting income, fowls, ducks and pigs are raised in Ka Nyin Kone village. As home consumption livestock, the villagers raise chicken. Ducks and pigs are also used in home consumption sometimes.

The nature of livestock raising is similar between Ka Nyin Kone village and Wa Kone Village. Fowls are raised in Wa Kone village for selling purpose mainly. Pig and duck are for both of home consumption and selling purposes. Chicken is only for home consumption purpose.

- **Food Security**

In Ka Nyin Kone village, most of the people are working on seasonal works, after finishing the seasonal jobs, they become jobless. They suffer food insecurity in the off season of growing season. Normally, between May to October, most people suffer food insecurity.

Similar to Ka Nyin Kone village, most of the people from Wa Kone village are seasonal works and hence, they become jobless after the growing season. They suffer this food insecurity in off season period.

The reason of food insecurity of both villages are observed that these people do not have enough land for rice cultivation. Also, there is a lack of modern techniques for rice cultivation. Pests and Disease infestations in the crops as a result of climate change become severe and hence, the people suffers the losses and faced the problem of food insecurity in the off season.

- **Access to Education**

In Ka Nyin Kone village, middle school is present and hence, the children in this village could access the middle education easily. Among boys, about 80% completed the primary school level,40% completed middle school level. In the high school level, only about 10% of the boys reach the high school level. The girls' attendance was significantly lower in this village compared with the boys especially in which primary level.

In Wa Kone village, there is the middle school in the village as in Ka Nyin Kone village. However, the schooling attendance is lower in this village compared with Ka Nyin Kone village with 35% of boys completed primary level, and 5% of boys in middle school level. There is no boy student continued studying in high school level yet. The rate of the school attendance at different levels – primary, middle and high is observed nearly the same between the boys and the girls staying in this village.

- **Access to Health**

Rural Health Care Centre for Ka Nyin Kone Village is accessible in the nearby village- Bawathit which is about 6 miles distance.

Likewise, there is no rural health care Centre in Wa Kone village. The villagers can access to the rural health care service in the village which is about 2 miles distance from Ka Nyin Kone village.

- **Electricity Access**

Ka Nyin Kone village could not access the government supply electricity. As well as, many of the households could not apply the solar energy.

In Wa Kone village, the villagers rely on the solar energy. Only about 50% of total households could apply solar energy.

Forest Access and Forest Use in CF villages of Ayeyarwady Region

Forest Access by CF members/ non-CF members/ Women/ Ethnic groups/ by disabled/ old persons

CF area is accessible by CF members and non-CF members of the village. The accessibility to CF area does not discriminate on the marginal vulnerable people (women, disabled, old persons, the poor and ethnic groups)

There is not non-CF forest area in the surroundings of surveyed villages. These surveyed villages are encroached villages situated in reserved forest area and the surrounding forest area around these surveyed villages had been recognized as CF area.

Forest Use by CF members/ non-CF members/ Women/ethnic groups/ disabled/ old persons

According to the consultation with FGDs from Ka Nyin Kone CF village community and Wa Kone CF village of Pyapone township within Ayeyarwady Region, the following were observed.

Regarding with the forest products extraction from CF area, both of CF members and non-CF members get equal opportunity to take out the NFTP and fuel woods. As well as, fishing and finding crabs inside CF area is allowed to all of the community members covering both of CF members and non-CF members. In accessing and use of forest products, only CF members are allowed. The respondents from both of surveyed villages also expressed that the social support system is well established between CF members and non-CF members by the means of selling or supporting of some forest products from CF area to non-CF members when they need.

It was understood that the adjacent villages come to CF area and steal the wood and firewood from CF area for their requirement on fuel and home use. But, these are just for small scale of extraction.

Restriction in extraction of forest products depend only on the fact of being membership. There is no discrimination based on ethnicity, gender, wealth, age, physical extraction.

In terms of gender, there is a bit difference in types of the extracted forest products collected by men and women from the forest. Women collect the minor forest products and fuel wood for getting the income and for household consumption whereas men extract the wood for construction purpose and bamboo for selling purpose.

Forest Products Extraction and Marketing

There is no value-added forest products production from CF area. All of the forest products currently extracting are extracted as raw materials.

In Ka Nyin Kone CF, the following forest products are collected and sold by CF members– (i) poles (myaw) (ii) firewood (iii) seeds of mangrove trees. Among them, firewood is the most selling item. In general, CF committee decide to sell these forest products, and sometimes, the decisions are made together by all of CF members. However, selling is done by individual CF member for their household income, not by group basic. The customer of firewood is found to be fisherman from the nearby villages.

Similar to Ka Nyin Kone CF, CF members collect the poles and firewoods as well as some seeds of

Mangrove trees (Byu Shwe Wah and Tha Mae trees). What the difference to Ka Nyin Kone CF is these CF members focus more on collection and selling of Mangrove trees' seeds rather than selling of the poles (myaw) and firewood.