

Republic of the Union of Myanmar

Myanmar Flood and Landslides Emergency Recovery Project

Environmental and Social Management Framework (ESMF)

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Abbreviations

ADB	Asian Development Bank
BP	Bank Policy
CBDRM	Community-Based Disaster Risk Management
CDD	Community Driven Development
CIU	Component Implementation Unit
DRD	Department for Rural Development ((Ministry of Agriculture, Livestock, and Irrigation)
DRM	Disaster Risk Management
EA	Environmental Assessment
ECOP	Environmental Codes of Practice
EMP	Ethnic Minority Plan
EMPF	Ethnic Minority Planning Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
GoM	Government of Myanmar
GRM	Grievance Redress Mechanism
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IPF	Investment Project Financing
IRM	Immediate Response Mechanism (IDA)
IST	Implementation Support Team
JICA	Japan International Cooperation Agency
MOALI	Ministry of Agriculture, Livestock and Irrigation
MOC	Ministry of Construction
MOPAF	Ministry of Planning and Finance
M&E	Monitoring and Evaluation
PDNA	Post-Disaster Damage and Needs Assessment
NGO	Non-Governmental Organization
OP	Operational Policy
RAP	Resettlement Action Plan
RCC	Recovery Coordination Committee
RPF	Resettlement Policy Framework

I. Background

1. **While resource-rich, Myanmar remains one of the poorest countries in Southeast Asia.**¹ Although significant reforms have been introduced in the recent years, the economy remains centered on extractive industries and agriculture.² With a population of 51.4 million, the country has a per capita GDP of US\$1,105 (2013/2014). In 2010, the rate of poverty was estimated to be between 25.6 and 37.5 percent, concentrated particularly in rural and conflict-affected areas.³ At least 70 percent of Myanmar's poor live in rural areas, and agriculture plays a critical role for both inclusive growth and poverty reduction, generating over half of employment in the country and accounting for 37 percent of its gross domestic product (GDP).⁴ In the past years, Myanmar experienced a rapid economic boom, growing at an estimated rate of 5.3 percent in 2010/2011 and of 8.5 percent in 2014/2015, with growth anticipated to continue over the medium term.⁵ From July to September 2015, the country suffered from severe floods and landslides, which are estimated to impact economic growth by 0.8 percentage points.

2. **Following the elections held in 2010, the Government launched a series of profound reforms, which resulted in a dramatic increase in political and civil liberties.** Political prisoners were freed, media controls relaxed, armistices with ethnic groups were sought. In the subsequent election in November 2015, the National League for Democracy (NLD), led by Daw Aung San Suu Kyi, won 79.4 percent of the contested seats. A new Parliament was seated in February 2016 and a new Cabinet was formed in March 2016. The majority of the 18 ministers, who took office in April 2016, are members of the NLD. Addressing the emergency effectively is important for the new Government to ensure support to communities affected by the disaster.

3. **From July to September 2015, Myanmar's people and its economy were severely impacted by floods and landslides.** The disaster had disproportionate impacts on the population, affecting those who even before the disaster were poorer than the rest of Myanmar's population. Half of the most-affected 40 townships are in the two poorest states in Myanmar: Rakhine and Chin, which have poverty rates of 78 and 71 percent respectively. Loss of income and livelihoods has been compounded by loss of assets and reduced access to social services.⁶ The disaster is estimated to impact economic growth by 0.8 percentage points. It is expected that at least 9.4 million workdays will be lost, along with US\$16.9 million in personal wage income, due to the disaster.⁷ In terms of per capita effects, Chin State sustained the highest value of damages and losses, followed by Rakhine State and the Ayeyarwady Region, which has the largest absolute number of poor in the country.⁸

¹ World Bank 2014. Myanmar—Ending Poverty and Boosting Shared Prosperity in a Time of Transition: A Systematic Country Diagnostic. Washington, DC, World Bank.

² World Bank 2015. Myanmar: Empowering People for Inclusive Growth. Country Partnership Framework for the Period 2015–2017.

³ Estimate depends on methodology used, see World Bank 2014. A Systematic Country Diagnostic.

⁴ World Bank Development Indicators 2015.

⁵ World Bank. 2015. Myanmar Economic Monitor. October 2015.

⁶ World Bank. 2015. Myanmar Economic Monitor. October 2015

⁷ Government of Myanmar. 2015. -Disaster Needs Assessment of Floods and Landslides July–September.

⁸ World Bank 2014. Myanmar—Ending Poverty and Boosting Shared Prosperity in a Time of Transition.

Emergency Context

4. **The floods were a rare event with the largest disaster impacts since Cyclone Nargis in 2008.** Depending on the location, the floods have an estimated return period of 20–50 years. They were accompanied by landslides, particularly in the Chin State.⁹ Torrential rains started on July 16, 2015, saturating the ground. On 30 July, 2015 Cyclone Komen made landfall in Bangladesh, bringing strong winds and additional rains to Chin and Rakhine States, and Sagaing, Magway and Bago Regions.¹⁰ In Chin State, the monthly rainfall of July measured at the weather station in Hakha was equal to a 1-in-1,000-year rainfall. The combination of heavy rainfall, high soil saturation, and unstable soils in hilly areas caused widespread and devastating landslides. Up to 5.2 million people were exposed to heavy floods, strong winds and landslides in the 40 most heavily affected townships. Over 1.6 million people were temporarily displaced, 525,000 houses were impacted, and 132 lives were lost. The On July 31, 2015, Myanmar's President declared a state of emergency in Sagaing, Magway, Chin, and Rakhine, designating them as disaster-affected zones, in accordance with Article 11 of the Natural Disaster Management Law.

5. **A Post-Disaster Needs Assessment (PDNA) was undertaken by the GoM between September 24 and October 12, 2015 to assess the impact on key sectors, understand the scale of the economic impact, and support the process of recovery and reconstruction.** The PDNA estimated that the total economic value of the effects of the floods and landslides was approximately US\$1.5 billion, equivalent to 3.1 percent of the GDP in 2014/2015.¹¹ Of this, US\$615.6 million was attributed to damages and US\$892.9 million to losses. GDP growth could drop by 0.8 percentage points in 2015/2016 if recovery efforts are not undertaken. In addition, the current account deficit is expected to increase to above 8 percent of GDP and the fiscal deficit is projected at just under 5 percent of GDP.¹² Landslides had a major impact on road connectivity and the transport sector accounts for about 50 percent of the total damages in the public domain.

6. **Myanmar's transport infrastructure was extensively damaged by the flooding and landslides, particularly in Chin, Sagaing and Rakhine.** Damages are mainly concentrated in Chin, Sagaing, and Rakhine, representing nearly 60 percent of the total damage and loss in the transport sector. Access to essential services in large towns and State capitals was cut off as a result of the flooding and landslides, with destroyed bridges blocking even the most basic mode of transport—foot traffic. Road infrastructure remains vulnerable to further damage and total failure until permanent repair works can be completed. The disaster has worsened the existing poor accessibility in rural areas and has resulted in even longer travel times for vulnerable rural populations. The lack of access on the rural road network also restricts the delivery of emergency supplies, and will continue to hamper recovery efforts for the most-affected communities.

7. **On August 10, 2015, the Recovery Coordination Committee (RCC) was formed by the Government and tasked to manage the recovery planning and implementation.** The RCC consists of 28 members from line ministries and is chaired by the Ministry of Construction (MOC), which is also responsible for the overall coordinating of the proposed project. The RCC highlighted

⁹ Government of Myanmar. 2015. PDNA. Based on analysis conducted by Deltares. 12 October 2015.

¹⁰ Government of Myanmar. 2015. Situation Report 1. National Natural Disaster Management Committee.

¹¹ Government of Myanmar. 2015. PDNA.

¹² Based on Myanmar's fiscal year 2015-2016 (April to March).

the needs of the transport and agriculture sectors, and the overall urgency to support the livelihood of affected populations. In August 2015, the Vice-President outlined a national recovery coordination mechanism, and guiding principles for building back better. Based on the multi-sectoral PDNA results and recommendations, these principles have been followed by the outgoing Government, and their implementation is expected to continue under the new Government.

8. Financial constraints and the change of Government have impacted the recovery process. As of October 6, 2015, the Government had allocated US\$59.5 million from its own resources to respond to the disaster.¹³ As of March 1, 2016, support from development partners totaled US\$203 million¹⁴. For example, in Chin State, the ADB provides US\$12 million in grants to support rural infrastructure rehabilitation and income generation. Overall, a shortfall in the assistance for floods recovery was noted. Nearly one year after the severe flooding, many poor communities in rural areas are still facing major problems, including food shortages. The change of Government had implications on the processing timelines of the reconstruction efforts, including the proposed project. The outgoing Government decided not to commit to major investments on behalf of the new Government and the proposed project was approved by the new Parliament. The new Government is determined to address the remaining recovery needs of the population and works closely with the international community to access financing.

9. The World Bank's response to the floods and landslides includes a package of interventions using several instruments to meet Myanmar's reconstruction and recovery needs. Following a request from the Government, the World Bank provided technical support for the multi-sectoral PDNA to inform recovery and reconstruction planning. Through the project portfolio, reallocations were made under the National Community Driven Development Project to affected communities, and under the Decentralizing Funding to Schools Project to transfer funds to schools ahead of schedule to respond to the disaster impacts on households. Moreover, the World Bank is assisting the GoM in the mobilization of the IDA Immediate Response Mechanism (IRM) which allows countries to access up to 5 percent of the undisbursed IDA portfolio of effective projects which include a contingent emergency response component.¹⁵ In line with the PDNA results, the IDA IRM will support the recovery of the agriculture, fisheries and livestock sectors, financing a positive list of goods, including fertilizer, seeds, animal feed and fishing gear, and operating expenses needed for the distribution and use of the procured goods, in the amount of approximately US\$55 million. With a view on the medium- and long-term disaster risks, the World Bank is preparing a separate Disaster Risk Management (DRM) Project which will focus on building climate and disaster resilience through a range of flood risk management investments.

10. The Flood and Landslide Emergency Recovery Project responds to the priority sectors and geographic areas identified in the PDNA. First, the project will help to close the financing gap in the transport sector, which was the hardest-hit public sector. It will focus on the geographic areas that experienced the highest damages in the transport sector. Second, livelihood support through labor-intensive rehabilitation and maintenance of rural roads will help alleviate

¹³ Government of Myanmar / National Natural Disaster Management Committee. 2015. Situation Report 6. October 6. Since then, the Government has not released updates on allocations to the disaster response.

¹⁴ OCHA Financial Tracking Services and bilateral information.

¹⁵ World Bank Immediate Response Mechanism website: <http://www.worldbank.org/ida/immediate-response-mechanism.html>.

the suffering of the most-affected segments of society with both immediate and long-term benefits of income generation, capacity building, increased connectivity as well as business opportunities. Third, the project will support the recovery in the agricultural sector by financing a positive list of goods, including seeds and animal feed, through a contribution to the IDA IRM. The project areas of intervention were selected based on the following criteria: (i) the level of impact sustained as documented by the PDNA, (ii) the number of poor and vulnerable populations, and (iii) consideration of recovery interventions by development partners. The project interventions will focus on the States and Regions which experienced the highest per capita damages, namely Chin, Rakhine, Ayeyarwady, Sagaing and Bago. In the preparation of the proposed project, the World Bank is closely cooperating with the ADB and the Japan International Cooperation Agency (JICA) in particular to avoid overlap and ensure investment synergies.

II. Project Development Objective

11. The project development objective is to support the recovery in priority areas affected by the 2015 floods and landslides in Myanmar and, in the event of another eligible crisis or emergency, to provide immediate and effective response to said eligible crisis or emergency.

III. Project Description

12. The project will support the resilient rehabilitation and reconstruction of infrastructure in the disaster-affected areas using principles of building back better to avoid recreation of vulnerabilities that contributed to the floods and landslides. Critical infrastructure will be rebuilt to a higher standard to reduce the risk of their destruction from future events. The project will rebuild public and community infrastructure, including roads and bridges that have been damaged or destroyed by the floods and landslides, using labor-intensive approaches to create employment and income generation opportunities for the affected communities.

13. The project will benefit the population affected by the 2015 floods and landslides across most-affected states and regions as well as social groups. Under Component 1, direct beneficiaries will include inhabitants in Chin and some people in Rakhine through restored national road access and a safer road network. Under Component 2, inhabitants of Ayeyarwady, Bago, Magway, Sagaing, and Yangon will benefit from livelihoods-supporting activities consisting of labor-intensive works, and restored rural roads and bridges. Under Component 3, direct beneficiaries will include some members of the farm households from disaster-affected Regions and States, who lost their crops, livestock, and fishery gear as a result of the floods and landslides. Vulnerable groups will be targeted as the design will include criteria such as number of poor people and high level of flood impact. Women will represent 50 percent of project beneficiaries.

14. The project consists of four components: (i) Resilient Rehabilitation of National Roads, (ii) Resilient Rehabilitation of Rural Roads and Livelihoods Support, (iii) Emergency Response, and (iv) Project Management and Knowledge Support..

Component 1: Resilient Rehabilitation of National Roads (US\$105 million)

15. The objective of this component is to support the climate-resilient rehabilitation of damaged national road infrastructure. The target areas will benefit from improved connectivity and restored access to markets and social services, which will contribute to the economic growth. The restored roads and bridges will also serve as supply and rescue lines in the event of a disaster. This component will be implemented by the MOC on road segments predominantly in Chin and Rakhine, including the Kalay-Falam-Hakha Road and the Ngathainggyaung-Gwa Road.

- *Rehabilitation and maintenance:* The project will rehabilitate national roads and bridges. Traffic safety facilities will complement the activities. Routine maintenance of the rehabilitated roads will be conducted towards the end of the project.
- *Climate resilience:* The project will finance elevating flood prone road sections, drainage improvement, slope stabilization, landslide protection, and bio-engineering techniques.
- *Capacity building:* To build the capacity of MOC in supervision and quality control, the project will finance equipment for technical laboratories.
- *Design and supervision of civil works:* Technical assistance for design, supervision, and quality assurance for the investments will be supported.

Component 2: Resilient Rehabilitation of Rural Roads and Livelihoods Support (US\$70 million)

16. The objective of this component is to (i) rehabilitate rural roads that have been destroyed during the floods, and (ii) support livelihoods and create jobs through the use of labor-intensive works, where appropriate. The repairs will indirectly regenerate farmer's agricultural production and increase sustainable access to basic needs and services. The component will be implemented by DRD in Ayeyarwady, Bago, Magway, Sagaing and Yangon.

- *Rehabilitation and maintenance:* The rehabilitation of rural roads and bridges through labor-intensive methods will be supported. These works will be complemented with traffic safety measures and routine maintenance to ensure sustainability. The concept of CBDRM will be introduced as part of the maintenance strategy.
- *Climate resilience:* A build-back-better approach will be taken, with sound engineering designs, sufficient drainage, and greening approaches applied to enhance the resilience.
- *Capacity building:* To build the capacity of DRD in supervision and quality control, the project will finance equipment for technical laboratories, and select machinery to support sustainable road maintenance practice and emergency response.
- *Design and supervision of civil works:* Technical assistance will focus on surveys and road designs as well as quality control and supervision of the works.

Component 3: Emergency Response (US\$15 million)

17. *Subcomponent 3.1 Contribution to IDA IRM (US\$15 million)* will support a pass-through contribution to the IDA IRM response to the 2015 July-September floods and landslides. It will finance expenditures from an approved list of goods in line with the draft Contingent Emergency Response Implementation Plan (CERIP), which is being developed for the IDA IRM activation, and the IDA IRM Operations Manual, developed by the GoM and approved by the World Bank. This sub-component will support the recovery of the agriculture, fisheries and livestock sectors through essential goods for farm households from disaster-affected Regions and States, including storage and construction materials, vehicles, medicine, small industrial machinery, seeds, animal feed, and fuel products. It will not finance any works or incremental operating costs. This component will be overseen by the Ministry of Planning and Finance (MOPAF) and MOALI.

18. *Subcomponent 3.2 Contingent Emergency Response (US\$0)* will allow for a reallocation of credit proceeds from other components to provide emergency recovery and reconstruction support following any future eligible crisis or emergency including the support activation of IDA IRM for a future event, or channel additional funds in response to an emergency. It would finance public and private sector expenditures on a positive list of goods and/or specific works, goods, services and operating costs required for given emergency recovery. A CERIP developed for the specific eligible disaster will apply to this sub-component, detailing financial management, procurement, safeguard and any other necessary implementation arrangements.

Component 4: Project Management and Knowledge Support (US\$10 million)

19. This component will support MOC and DRD in project management and implementation.

- *Project management:* This would include operational capacity-building, coordination, implementation expertise, preparation and monitoring of safeguards instruments, operating costs, monitoring, evaluation and reporting, and office equipment.
- *Knowledge Support:* Studies on strengthening disaster and climate resilience and improving road maintenance; and technical capacity-building for Government staff at national and local levels and for local contractors will be included. A Strategic Maintenance Framework for Roads and Bridges will be prepared to help MOC and DRD strengthen the maintenance operations under the country's limited resources. Technical assistance will be provided to help MOC and DRD to review and improve the current Design Standards for Road and Bridge under the climate change context. Innovative approaches such as application of information and communication technology (ICT) or use of geographic information system (GIS) data will be explored.

IV. Project Locations and Some Salient Social and Environmental Characteristics

1. The proposed project will support resilient rehabilitation of national roads and bridges in Chin State and Rakhine (Component 1); resilient rehabilitation of rural infrastructure through labor-intensive reconstruction and maintenance in Ayeyarwady and Magway, Bago, Sagaing, and Yangon (Component 2); and providing emergency support across affected States and Regions (Component 3). A map of the project investments is included in Annex 1.

20. In Chin State, the project will focus on the affected Kalay-Falam-Hakha Road, Hakha-Gangaw Road. The Kalay-Hakha road connects Chin State with the Sagaing Region and the Hakha-Gangaw road connects Chin State with the Magwe Division. Landslides are frequent in this area but the 2015 rainy season, a one in a thousand year event, has exacerbated this trend. The Chin Hills and mountains are generally fragile and vulnerable to landslides and erosion. The population along the Kalay-Falam-Hakha Road and the Hakha-Gangaw Road corridor is mostly rural, with a number of relatively small settlements along the road including Falam and Lumbang. The Kalay-Falam-Hakha Road and the Hakha-Gangaw Road run through a hilly forested area, mostly consisting of Pine and Oak forests, in overall good condition – most of the clearings observed are located around the human settlements or caused by the landslides. There are no Natural Protected Areas limiting with the alay-Falam-Hakha Road and the Hakha-Gangaw Road.

21. The project will support the Gwa-Ngathaingchaung Corridor (approximately 78km), which connects the south of Rakhine State to the Irrawaddy Region. Rakhine State was severely affected by the disaster and experienced the third highest losses in the transport sector after Chin State and Sagaing State. Overall, the Gwa- Ngathaingchaung corridor runs through hilly areas covered in semi-evergreen and evergreen forest. Some of the tree species include teak, pikandoo and other hard wood trees, as well as Kayhin bamboo and the locally called Mountain Mango. The road limits to the north in certain areas with Protected Public forest, which is concessioned out to private holders in 30-year leases. The Yoma Elephant Range, a Wildlife Sanctuary located north of the Gwa- Ngathaingchaung Corridor, homes a wide range of wildlife such as elephants, Asian black bear, deer, gibbons, and the Arakan Forest turtle, which was believed to be extinct but was just recently found again in this area.

22. The project will support rural roads rehabilitation and temporary/maintenance employment opportunities in Rakhine, Sagaing, Ayeyarwady and Magway, Bago and Yangon. These states and regions are located in the Central Valley, along the Irrawaddy River, and the Arakan Mountains in the west (Rakhine). The specific areas and townships supported by the project in each state and region are yet to be determined as well as the particular salient environmental features surrounding the proposed project sites.

23. Diverse ethnic minority groups live in project areas. The Chin ethnic group constitute the majority in Chin state, including along the Kale-Hakha corridor. Some smaller ethnic groups who broadly belong to Chin group such as Hakha, Falam, Sentshaung, Zo, Tawr and Baulkhaw people are also known to be present along the Kale-Hakha corridor. Component 1 will also be implemented in Rakhine state where some two-thirds of the population are Rakhine and approximately one-third are Muslim, along with smaller populations of Chin and other ethnic groups. Component 2 will be implemented in: (i) Sagaing State where the majority are ethnic Bamar people, although other ethnic groups such as Chin and Shan people also live there, (ii) Ayeyarwady region where the majority are ethnic Bamar but also Kayin people and other small ethnic groups live there; (iii) Bago region where ethnic Bamar, Kayin, Mon and Shan people live; and (iv) Yangon.

24. Due to military and civil conflicts there are internally displaced populations in some areas of the country, for example in Kachin, Rakhine and Shan states. Migrants and disaster-affected populations constitute other vulnerable groups. This includes post-disaster communities in the

Delta region, and seasonal migrant workers in Mon State who come from central Myanmar to work in rubber plantations; migrants in Mon State may account for up to 20% of the population. In addition, there are returnees from Thailand who fled previous conflicts in the border areas but who in many cases have not been able to return to their original villages. Many of them are poor and vulnerable, face language and cultural barriers, and have limited access to social services and livelihood opportunities. There is a risk that they may be missed out when the project identifies potential project beneficiaries.

25. The social characteristics of Rakhine State present a particular set of challenges and opportunities. Social relations among its Rakhine and Muslim populations have long been fragile, driven by differences in perspective over history, culture, identity, and exacerbated by poverty and underdevelopment. This led in 2012 to conflict and widespread displacement. The state faces several challenges in emerging from conflict, including around reconciliation, citizenship, return and resettlement of IDPs, access to services, and land. These will create sensitivities around post-disaster assistance, but also opportunities: such assistance, if perceived to be equitable across communities, has the potential to help build social capital and trust.

V. Possible Social and Environmental Impacts/Risks

26. The Component 1 and 2 will support the rehabilitation and maintenance works on national and rural roads and bridges which will be mostly implemented within the existing road's right of ways. In certain areas, the rehabilitation and maintenance works could entail minor realignments and strategic widening of the road to two lanes. The project will support analytical work (e.g. geologic and hydrologic surveys, landslide risk assessments, feasibility studies, environmental and social instruments) to support the design and location of the investments and minimize environmental and social impacts. Significant, irreversible and unprecedented environmental impacts are not anticipated and mitigation measures are expected to be readily available.

27. The project will support build-back-better approaches for the affected infrastructure. Some of these build-back-better approaches could include physical works for landslide protection such as improved drainage and slope stabilization; as well as technical assistance such as design reviews or feasibility studies for long-term landslide protection measures. Build back better approaches are expected to contribute positively by promoting the integration of resilient and innovative ideas/technologies for road infrastructure, on case by case basis, e.g. re-use of salvaged material safer locations, flood resistant structures, etc.

28. Materials for road construction are generally sourced locally – the Kale- Gangaw and the Gwa- Ngathaingchaung corridors have quarries along the road – an Environmental Code of Practice for Quarries management is included in Annex 8. Local extraction of construction material (e.g. sand, gravel, clay, wood) could increase vulnerability to landslides and soil erosion. In addition, better connectivity could increase the pressure on local resources, including forestry. Small-scale construction works have risks related to health and safety and can cause temporary air and water pollution due to the handling of construction material. Occupational health and safety of construction workers is a widespread issue in Myanmar. The ESMF includes measures to manage the environmental and social impacts of road rehabilitation and maintenance works. Cultural sites could be located in the vicinity of the Project-supported sub-projects (e.g. burial

sites, shrines) and could be affected by them – Chance Find procedures are included in Annex 11. Inadequate disposal of goods supported by Component 3 Immediate Response Mechanism (IRM) could cause negative environmental impacts – an Environmental Code of Practices (ECOP) for Waste Management is included in Annex 10. Some of the possible environmental and social impacts and risks of the project are summarized below.

29. Environmental Impacts:

- (a) The construction of road infrastructure could put pressure on the existing forest resources and local resources, due to increased access to markets and for extraction of construction materials (rick, gravel, sand, wood, etc). Better connectivity could increase the likelihood of land use change, soil erosion and landslides;
- (b) Occupational and community health and safety risks related to rural road construction, workers camps and road safety;
- (c) Impact on environmental health and sanitation due to removal and disposal of debris/demolition materials which will potentially lead to water/air pollution;
- (d) Impact on cultural resources, including burial sites located along the roads;
- (e) Positive impact on the local forest and environment can be anticipated through the promotion of environmental good practices like afforestation programs, slope stabilization through re-vegetation, and bio-engineering activities;
- (f) ‘Build back better’ and disaster risk reduction will be supported through the adoption of new and resilient engineering technologies for constructing of roads, contributing to long-term sustainability of project results.

30. Social Impacts and Risks:

- (a) Positive benefits to disaster-affected people including poor people, women, indigenous peoples, ethnic minorities and marginalized groups, in the form of improved access to critical infrastructure and services, as well as direct income support;
- (b) Minor loss of land or assets as a result of realignment without widening of roads;
- (c) Potential loss of livelihood and damages to crops and trees;
- (d) Inadequate consultations with vulnerable groups including ethnic minorities, indigenous peoples, women and other marginalized groups; and
- (e) Ineffective mechanisms for benefit targeting and information dissemination leading to exclusion of marginalized groups from project benefits.

- 2. The Component 3 will be implemented through the Immediate Response Mechanism (IRM) which is currently under development. It will support the recovery of the agriculture, fisheries and livestock sectors, financing a positive list of goods, including fertilizer, seeds, animal feed and fishing gear. It will not finance any civil works. Potential environmental impact of this component will be addressed through the Environmental Code of Practice (ECOP) included in this ESMF. No activity will commence under this Component before the ECOP is prepared and cleared by the Bank. No negative impact is expected to occur to ethnic minorities under this Component. However, where this component will be implemented, an ethnic screening will be conducted and if an ethnic minority community is found to be present in project affected areas, free, prior and informed consultations will be conducted in a manner of rapid participatory SA, their broad community support be ascertained, and a simple Ethnic Minority Plan (EMP) will be developed.

31. **Consideration of Alternatives:** the project will support rehabilitation and reconstruction activities of damaged roads. During implementation, alternatives for specific road infrastructure will be considered, also as part of “build back better” principles. Some of these alternatives could entail minor-realignments in challenging landslide prone areas; small scale community infrastructure location and design; demolition and clearing of land/disposal of debris where existing housing or community infrastructure is not salvageable; relevant environmental good practices such as reforestation as slope stabilization, forest compensation, rainwater harvesting; as well as construction materials such as locally sourced timber, sand, clay, concrete blocks, etc.

VI. Legal Framework

VII. National Legal Framework

32. **National Environmental laws and Regulations:** The GoM is currently in the process of updating and developing its environmental legal and institutional framework. The current legal framework is fragmented and there are numerous gaps and conflicting provisions. Implementation capacity is also an issue in Myanmar. Myanmar’s environmental and social legislation includes the *Environmental Conservation Law 2012*; *Environmental Conservation Rules 2014*; the *Environmental Impact Assessment Procedures* and guidelines. The 2012 Conservation Law provides a general mandate for the former Ministry of Forestry and Environmental Conservation (MOECAF), the actual Ministry of Natural Resources and the Environment, to implement environmental conservation policies, prescribe environmental quality standards, hazardous waste and waste management and pollution control produce an Environmental Assessment System. The 2012 Conservation Law also gives MOECAF the mandate to protect cultural resources. The EIA rules and procedures were approved in December 29th, 2015. The EIA rules specifically require an ESIA for all road improvement activities (i.e. upgrading from seasonal to all weather surface, widening of shoulders) of a length equal or greater than 50 km. Specific sectoral laws like the Road Construction Law, allows the MOC to widen any existing road up to 75 feet each side and inform MOECAF. Table 1 summarizes the main aspects of the draft EIA rules vis-a-vis the World Bank Operational Policy (OP) 4.01 procedures.

Table 1 National EIA rules versus OP/BP 4.01 EIA requirements

Issue	EIA Rules	OP 4.01
Screening	MOECAF will determine the type of environmental assessment required. Projects require to carry out an Environmental Impact Assessment if impacts are expected to be adverse. Project Are required to carry out an Initial Environmental Evaluation if impacts are adverse but of a lesser degree than an EIA type projects. The Procedures also include a list of thresholds for different sectors and typology of projects that will require an Initial Environmental Evaluation or a ESIA	The Bank screens all projects and classifies them into one of four categories (Category A, B, C, and FI), depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts
Triggers	Projects with significant environmental impact	All projects financed by the World Bank. EA process depth will depend on the risk and impacts associated with the Project.
Responsibilities	Project proponent leads the EA process	Borrower leads the EA process
Public participation	MOECAF shall arrange as it deems necessary for Public Participation. In the process of approving the EIA report, MOECAF shall take into account suggestions from project affected people and civil society. However, the rules do not specify the process of receiving feedback or incorporating it into the proposed project.	For all Category A and B projects, during the EA process, the borrower consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental and social aspects and takes their views into account. The borrower initiates such consultations as early as possible. For Category A projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the borrower consults with such groups throughout project implementation as necessary to address EA-related issues that affect them.

Issue	EIA Rules	OP 4.01
Disclosure	The Project proponent shall disclose all relevant project information including about its environmental and social impacts, to the public.	<p>The borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.</p> <p>Any separate Category B report is made available to project-affected groups and local NGOs. Public availability in the borrowing country and official receipt by the Bank of Category A reports, and of any Category B report, are prerequisites to Bank appraisal of these projects.</p> <p>Once the borrower officially transmits the Category A EA report to the Bank, the Bank distributes the summary (in English) to the executive directors (EDs) and makes the report available through its InfoShop. Once the borrower officially transmits any separate Category B EA report to the Bank, the Bank makes it available through its InfoShop.</p> <p>If the borrower objects to the Bank's releasing an EA report through the World Bank InfoShop, Bank staff (a) do not continue processing an IDA project, or (b) for an IBRD project, submit the issue of further processing to the EDs.</p>
Screening	Projects are screened and should prepare an IEE if the impacts are limited in scope and ESIA if in a similar way as the World Bank's. The Procedures also include a list of thresholds for different sectors and typology of projects that will require an Initial Environmental Evaluation or a ESIA	The Bank screens all projects and classifies them into one of four categories (Category A, B, C, and FI), depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts
EA Content	MOECAAF determines the content of the EA report, which primarily includes assessment of direct impacts linked to project and description of mitigation measures (environment mitigation plan).	The EA needs to include assessment of project alternatives; cumulative impacts; specific mitigation measures and monitoring activities.

Issue	EIA Rules	OP 4.01
Monitoring	MOECAF shall monitor project performance in accordance to the Environmental Management Plan (EMP). The Project proponent shall comply with the EMP and the terms included in the license throughout the lifetime of a project. If found in non-compliance, MOECAF shall impose penalties or suspend project construction or operation.	During project implementation, the borrower reports on (a) compliance with measures agreed with the Bank on the basis of the findings and results of the EA, including implementation of any ESMP, as set out in the project documents; (b) the status of mitigation measures; and (c) the findings of monitoring programs. The Bank bases supervision of the project's environmental aspects on the findings and recommendations of the EA, including measures set out in the legal agreements, any ESMP, and other project documents

33. **Physical Cultural Resources and Natural Habitats:** The Ministry of Culture is the main authority dealing with physical and cultural resources. The Environmental Conservation Law provides MOECAF with the mandate to “cooperat[e] with the relevant Government departments and Government organizations in the matters of environmental conservation for perpetual existence of cultural heritage sites and natural heritage sites, cultural monuments and natural areas stipulated under any existing law.” Specific regulations and implementation responsibilities are being developed.

34. **Land Laws:** Farmland Law was adopted in March 2012. It affirms that the state is the ultimate owner of all land. It also provides a private use right over farmland that includes the right to sell, exchange, inherit, donate, lease and ‘pawn’ the land. The Farmland Law also covers conditions under which farmers can retain use-rights, the state’s power to rescind such rights, the process for settling land-related disputes, and basic requirements for compensation in the case the state acquires the land for public purposes.

35. The Vacant, Fallow and Virgin Lands Management Law was also enacted in 2012. It governs the allocation and use of virgin land and vacant or fallow land. This law provides establishment of the Central Committee for the Management of Vacant, Fallow and Virgin Lands (CCVFV), which is responsible for granting use rights for such lands.

36. The 1894 Land Acquisition Act remains the primary law governing compulsory land acquisition. The Act permits the government to acquire land for public purposes and requires it to compensate land users. Its provisions include the procedures for required notice for acquisition of land and objections or appeals, as well as land valuation methods.

37. **Legal framework with regard to ethnic minorities:** According to Chapter 1, clause 22 of the 2008 Constitution of Myanmar, the Union Government of Myanmar is committed to assisting in developing and improving the education, health, language, literature, arts, and culture of Myanmar’s “national races.” It is stated, that the “Union shall assist:

- (a) To develop language, literature, fine arts and culture of the National races;
- (b) To promote solidarity, mutual amity and respect and mutual assistance among the National races; and
- (c) To promote socio-economic development including education, health, economy, transport and communication, [and] so forth, of less-developed National races.”

38. The Myanmar constitution provides equal rights to various ethnic groups included in the national races and a number of laws and regulations aim to preserve their cultures and traditions. This includes the establishment of the University for the Development of the National Races of the Union which was promulgated in 1991 to, among other things, preserve and understand the culture, customs and traditions of the national races of the Union, and strengthen the Union spirit in the national races of the Union while residing in a friendly atmosphere and pursuing education at the University.

39. There is no central government agency with the responsibility for addressing particular issues pertaining to ethnic minorities. The vast majority of Myanmar’s ethnic minorities live in the seven States and these are in most cases led by the main ethnic minority in the respective States. In relation to previous ceasefire agreements, ethnic minority groups were granted authority over political and economic affairs in their areas, covering large areas of the States. Social and other public services were developed by ethnic authorities, often with support from NGOs, and are still operating in many areas.

40. Free media is developing and ethnic parties and associations are politically active in the country. Ethnic minority organizations may also play a stronger role going forward through the current Government’s decentralization efforts which would afford States and Regions to play a more prominent role in decision-making and implementation of various policies and programs. Following the general elections held in November 2015, the Government is currently in transition. The National League for Democracy (NLD), led by Daw Aung San Suu Kyi, has won 79.4 percent of the contested seats. With an absolute majority of seats in Parliament, it will be able to elect the President, form the Cabinet, and pass bills. The new parliament was seated on February 1, 2016, with the President expected to be nominated in March 2016. The President will then form a Cabinet, which is expected to take office on April 1, 2016. Since 2011, major political changes have been taking place with a dramatic increase in political and civil liberties, a reduction in armed conflict, and the signing of a National Ceasefire Accord, although conflict continues in Kachin State and northern Shan State, and social tension remains in Rakhine State. Addressing the emergency effectively will be important for both the outgoing and incoming government in helping ensure continuous support to communities affected by the disaster.

VIII. Categorization and World Bank Safeguard Policies Triggered

41. This Project is considered a Category B as significant, irreversible, sensible and unprecedented environmental impacts are not anticipated and mitigation measures for project-supported activities are expected to be readily available. The project will not finance new infrastructure or any other measure beyond recovery or build back better works. The reconstruction and rehabilitation works will on a general basis be implemented in the existing road’s right of ways and only in certain areas, could the works entail minor realignments (of a few kilometers

maximum) and strategic widening of the road to two lanes. Category A sub-projects¹⁶ will be excluded from project financing due to the scope of the expected rehabilitation works and the restrictions in timing typical of an emergency operation. Category A sub-projects would require additional consultations and an upfront investment in building safeguards capacity of implementing line ministries.

42. The overall objective of the World Bank's safeguard policies is to help ensure the environmental and social soundness of investment projects, including enhancing project outcomes for local communities, including the poor, ethnic minorities, women and other marginalized communities. Since minor environmental impacts, temporary impacts to cultural resources, and minor loss of private land or assets may occur as a result of road reconstruction and rehabilitation and given the presence of ethnic minorities in project affected areas, the Project triggers the Bank's OP 4.01, OP4.04, OP 4.36, OP 4.11, OP4.12 and OP4.10. A brief description of each policy is provided below.

43. **Environmental Assessment (OP 4.01):** The Bank requires environmental assessment (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.

44. EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. EA evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation. The Bank favors preventive measures over mitigation or compensatory measures, whenever feasible.

45. The borrower is responsible for carrying out the EA. The Bank advises the borrower on the Bank's EA requirements. The Bank reviews the findings and recommendations of the EA to determine whether they provide an adequate basis for processing the project for Bank financing. When the borrower has completed or partially completed EA work prior to the Bank's involvement in a project, the Bank reviews the EA to ensure its consistency with this policy. The Bank may, if appropriate, require additional EA work, including public consultation and disclosure.

46. The OP 4.01 also covers some social impacts that are likely to occur but which are not covered under OP 4.10 or OP 4.12, such as potential exclusion of vulnerable social groups from project benefits.

47. **Natural Habitats (OP4.04):** The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. The Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats and their functions in its economic and sector work, project financing, and policy dialogue. The Bank

¹⁶ Per World Bank classification, category A projects are those that will likely produce impacts that are irreversible, sensitive, diverse, unprecedented, in a scale beyond the project area.

supports, and expects borrowers to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.

48. **Forests (OP 4.36):** The management, conservation, and sustainable development of forest ecosystems and their associated resources are essential for lasting poverty reduction and sustainable development, whether located in countries with abundant forests or in those with depleted or naturally limited forest resources. The objective of this policy is to assist borrowers to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests.

49. Where forest restoration and plantation development are necessary to meet these objectives, the Bank assists borrowers with forest restoration activities that maintain or enhance biodiversity and ecosystem functionality. The Bank also assists borrowers with the establishment and sustainable management of environmentally appropriate, socially beneficial, and economically viable forest plantations to help meet growing demands for forest goods and services.

50. **Physical Cultural Resources (OP 4.11):** This policy addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.

51. Physical cultural resources are important as sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices.

52. The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects that it finances. The impacts on physical cultural resources resulting from project activities, including mitigating measures, may not contravene either the borrower's national legislation, or its obligations under relevant international environmental treaties and agreements.

53. **Involuntary Resettlement (OP 4.12):** This policy aims to achieve the following objectives:

- (a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- (b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.

- (c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher

54. The policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by (a) involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

55. The policy applies to all components of the project that result in involuntary resettlement, regardless of the source of financing, and to other activities resulting in involuntary resettlement, that in the judgment of the Bank, are (a) directly and significantly related to the Bank-assisted project, (b) necessary to achieve its objectives as set forth in the project documents; and (c) carried out, or planned to be carried out, contemporaneously with the project.

56. If the policy is triggered, the borrower prepares a resettlement plan or a resettlement policy framework that covers the following: (a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are (i) informed about their options and rights pertaining to resettlement; (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and (iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.

57. **World Bank Indigenous Peoples Policy (OP 4.10):** For all projects that are proposed for Bank financing and affect Indigenous Peoples, the Bank requires the borrower to engage in a process of free, prior, and informed consultation. The Bank provides project financing only where free, prior, and informed consultation results in broad community support to the project by the affected Indigenous Peoples. Such Bank-financed projects include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Bank-financed projects are also designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and inter-generationally inclusive.

58. If, based on the ethnic screening, the Bank concludes that Indigenous Peoples (ethnic minorities in the context of Myanmar) are present in, or have collective attachment to, the project area, the borrower undertakes a social assessment to evaluate the project's potential positive and adverse effects on ethnic minorities, and to examine project alternatives where adverse effects may be significant. On the basis of the Social Assessment and in consultation with the affected ethnic minorities, the borrower prepares an Ethnic Minority Plan (EMP) that sets out the measures through which the borrower will ensure that (a) ethnic minorities affected by the project receive culturally appropriate social and economic benefits; and (b) when potential adverse effects on ethnic minorities are identified, those adverse effects are avoided, minimized, mitigated, or compensated for.

59. Some projects involve the preparation and implementation of annual investment programs or multiple sub-projects. In such cases, and when the Bank's screening indicates that ethnic minorities are likely to be present in, or have collective attachment to, the project area, but their presence or collective attachment cannot be determined until the programs or sub-projects are identified, the borrower prepares an Ethnic Minority Planning Framework (EMPF). The EMPF provides for the screening and review of these programs or sub-projects in a manner consistent with this policy.

IX. Project approach to Addressing Environmental and Social Safeguard issues

60. This ESMF provides general policies, guidelines and procedures to ensure that the project is implemented in an environmentally and socially sustainable manner and in line with the applicable World Bank safeguard policies. It applies to all project components. Specifically it aims to achieve the following:

- (a) Minimize potential negative environmental and social impacts;
- (b) Enhance positive environmental and social impacts wherever possible;
- (c) Ensure that ethnic minorities and other vulnerable people are meaningfully consulted and that they receive project benefits in a culturally appropriate manner;
- (d) Prevent and, where unavoidable, fully compensate loss in livelihood associated with or caused by the project; and
- (e) Develop the capacity of the implementation agencies to manage environmental and social impacts in partnership with the affected communities.

61. The ESMF provides guidance to environment and social safeguard planning and compliance during implementation of investments to be financed under the project ("sub-projects"). As sub-projects will be identified and proposed for financing in a continuous manner during the project implementation period, screening for potential environmental and social impacts will be conducted and mitigation and management measures will be developed in line with this ESMF.

62. Environmental and social impact screening, mitigation and management measures development and implementation will follow these steps:

- (a) Step 1 - Identification of sub-projects according to the selection criteria;
- (b) Step 2 - Screening for potential environmental and social safeguard impacts and determination of safeguards instruments for each Sub-project;
- (c) Step 3 - Review of the safeguards screening by World Bank;
- (d) Step 4 – Development of safeguard instruments, consultation and disclosure;
- (e) Step 5 - Review and clearance of the safeguard instruments within the government and by the Bank;
- (f) Step 6 - Implementation of agreed actions; and supervision, monitoring, and evaluation

63. **Step 1 – Identification of Sub-projects According to the Selection Criteria:** in accordance with the Project's legal agreements and Operations Manual, all sub-projects will be identified using a set of standard selection criteria provided below:

- (a) Contained in the respective national, provincial and local Government's recovery plans;
- (b) Within either infrastructure or social sectors;
- (c) Consistent with national and local development plans;
- (d) Given first priority if they address restoration of destroyed or damaged services or facilities, especially those for vulnerable groups, for which no other sources of reconstruction financing are available;
- (e) Consistent with World Bank Environmental and Social Safeguard policies;
- (f) In accordance with national, provincial, and local standards, procedures and codes;
- (g) Designed to ensure sustainable service delivery, including the financing of equipment and capacity building;
- (h) Designed based on a rational and efficient option analysis including technical, financial, social, environmental and safety considerations;
- (i) Scaled and phased in accordance with current and appropriately projected demand;
- (j) Able to be completed prior to the Loan Closing Date set forth in the Loan Agreement.

64. During Step 1, the environmental and social specialists from the implementation agencies will participate in the identification and selection of sub-projects. They will evaluate and provide input, as appropriate, on ways to optimize the sub-project concepts to reduce environmental and social impacts.

65. Step 2 - Screening for Potential Environmental and Social Safeguard Impacts and Determination of Safeguard Instruments for Each Sub-project. Once sub-projects have been identified, environmental and social specialists from the implementation agencies will screen each sub-project for potential environmental and social safeguard impacts to determine the nature and extent of the environmental, confirm categorization of the project as B, propose the type of safeguards instruments required and confirm the environmental and social due diligence needed before government and Bank approval of each sub-project. In particular, any preparatory works that the GoM may have conducted to the Sub-project proposed for the Bank's financing will be subject to the environmental and social due diligence, so any outstanding gaps from the Bank's safeguard policies will be identified and measures will be taken to fill them, before the project activities commence. The choice of instruments (ESIA, ESMP, RAP, ECoP etc.) for each sub-project depends on the nature and magnitude of its potential impacts. Normally, an ESIA will apply to sub-projects that will involve more complex environmental and social analysis. This would, for example, include rehabilitation and reconstruction works that would have re-alignments or strategic widening or expansion, including opening and operation of quarries. Under the Project, the ESIA will also be conducted when, as a result of the screening, vulnerable people are found to be present in sub-project locations who face risk of exclusion from project benefits.¹⁷ ESMP would normally be required for works that have some site-specific issues, whereas ECOPs would be required to address generic construction issues.

66. The implementation agencies and their environmental and social safeguard specialists will concurrently screen each sub-project, and determine the categorization and the type of safeguards instruments that will be required for each sub-project. The types of safeguard instruments to be developed, include:

¹⁷ For those social group who meet the definition of the ethnic minorities under the Ethnic Minority Planning Framework (EMPF) attached to this ESMF, processes and procedures provided under the EMPF.

- (a) Environmental and Social Impact Assessment (ESIA)
- (b) Environmental and Social Management Plan (ESMP)
- (c) Environmental Code of Practice (ECOP) –
- (d) RAP: if over 200 people will need to be involuntarily resettled. If fewer people need to be resettled, then an abbreviated RAP will be required.
- (e) Social assessment (SA) if ethnic minorities are present in or have collective attachment to respective sub-project areas.
- (f) Ethnic Minority Plan (EMP) if an ethnic minority community would be affected by the sub-project.
- (g) Corrective Action Plan (CPP), if the environmental and social due diligence finds any outstanding gaps from the Bank's safeguard policies.

67. Annex 4 provides guidance for an initial screening, Annex 3 provides guidance on the preparation of ESIA and ESMP; Annexes 7-10 provides ECOP and additional resources for rural road construction, quarry development and management, and waste management.

68. It is expected that the Project will support only Category B sub-projects. Category A sub-projects will be excluded from Project financing giving due consideration to the safeguards capacity constraints of implementing agencies and the country as a whole and the related restrictions in timing (i.e. the need to respond to an emergency, whereas category A sub-projects would require a comprehensive ESIA which may take time to prepare and conduct consultations). The Project's objective is to support recovery in priority disaster-affected areas. The Project will not finance new infrastructure or major realignments (of several kilometers) or any other measure beyond recovery works. If the screening finds a vulnerable social group who face risks of exclusion from project benefit despite their eligibility to receive such benefits, the ESMP will include steps to ensure that fair and equitable opportunities be given to them to receive project benefits. Special attention will be paid so local women are given priority in the allocation of temporary jobs created under the Project.

69. **Step 3 – Review of the Safeguards Screening by the World Bank:** The implementation agencies will prepare a safeguards screening form for each sub-project in a format specified in Annex 4 and included in the Operations Manual. This form will summarize: (a) the environmental categorization; and, (b) environment and social safeguard instruments to be developed for respective sub-projects. The safeguards screening form and environmental and social instrument TOR, will be part of the sub-project identification package that will be submitted to the Bank by the implementation agency. The Bank will review and confirm the safeguards screening of all sub-projects based on the information provided by the implementation agency in the screening summary. It is expected that the Project will support only Category B Projects. Reviews of the screening of other Category B and C sub-projects will be conducted by the Bank on a selective basis to verify that the screening tools and choice of documents are being applied appropriately and consistently.

70. **Step 4 - Development of Safeguards Instruments, Consultation and Disclosure:** Once the result of the screening and types of safeguard instruments to be developed are agreed by the Bank and confirmed by the government, the project implementation agencies will develop

respective safeguard instruments. The detailed processes and procedures to develop the RAP, including their templates, are provided in the Resettlement Policy Framework (RPF) and the Ethnic Minority Planning Framework (EMPF) attached to this ESMF. Guidance on the preparation of ESIA and ESMPs is provided in Annex 3. Annexes 7-10 provides ECOPS and additional resources for rural road construction, quarry development and management, and waste management and should be incorporated into bidding documents and/or contracts.

71. Safeguard documents will be subject to consultation and disclosure in an accessible place, in a timely manner, in a form and language understandable to key stakeholders, prior to the finalization of the said documents. Particular attention will be given to ensure projected affected persons gets adequate time and ready access to draft documents before consultation takes place.

72. The Table 2 provides a summary of the expected environmental categorization, safeguard instruments to be developed, where respective activities may be implemented and which agencies are responsible for implementation. It is important to note here that this ESMF applies to the entire project; screening will therefore be carried out across all project components for potential environmental and social impacts, policies triggered, sub project category, and identification of social / environmental instruments to be prepared.

Table 2 Potential Safeguards Categorization, Sub Project Environmental and Social Instruments, Location and Implementation Arrangements by Project Component

Project Component	Potential Category	Potential subproject EI	Sub-project SI	Location	Tentative Project Implementation Arrangements
Component 1. Climate-Resilient National Infrastructure Rehabilitation	B	ESIA, ESMP, ECoP and/or Occupational and Community Health and Safety Guidelines	RAP or abbreviated RAP; SA; EMP	Kalay Gangaw corridor (Chin State), Gwa-Ngathaingchaung (Rakhine State)	MoC
Component 2. Rehabilitation of rural roads and temporary employment generation	B	ESIA, ESMP, ECoP, Occupation and Community Health and Safety Guidelines	RAP or abbreviated RAP; SA; EMP	Ayeyarwaddy, Bago, Magway Sagaing, Yangon	(DRD

73. **Step 5 – Review and clearance of the safeguard instruments within the government and by the Bank:** the implementation agencies will submit the draft safeguard instruments prepared under the Step 6 to the Bank for review and comments. Project activities will not commence before clearance is obtained from the Bank to respective safeguard instruments.

74. **Step 6 – Implementation of Safeguard Instruments, Supervision, Monitoring and Evaluation:** For Component 1, MOC will be responsible for the implementation, including safeguards aspects. For Component 2, DRD is responsible for implementation, including safeguards. Specifically, the CIUs are responsible for the preparation and implementation of safeguards instruments including the ECOP (and ESMP if required), voluntary donation forms, abbreviated RAP or full RAP, as applicable, according to the policies and procedures laid out in this ESMF. The respective implementation agency will ensure that no physical land acquisition or resettlement of affected people commences before an abbreviated RAP or RAP has been implemented, or before the voluntary donation form is signed by the affected household(s) and reviewed and approved by the respective implementation agencies.

X. Institutional Arrangements

75. **Project Coordination and Management** MOC will oversee overall project coordination and management. MOC will form a Project Secretariat which will report to the Permanent Secretary of MOC. It will be headed by a Project Director, and will be supported by consultants as part of project Implementation Support Team (IST). The Project Secretariat will liaise with other implementation units at DRD, MOALI, and MOPAF.

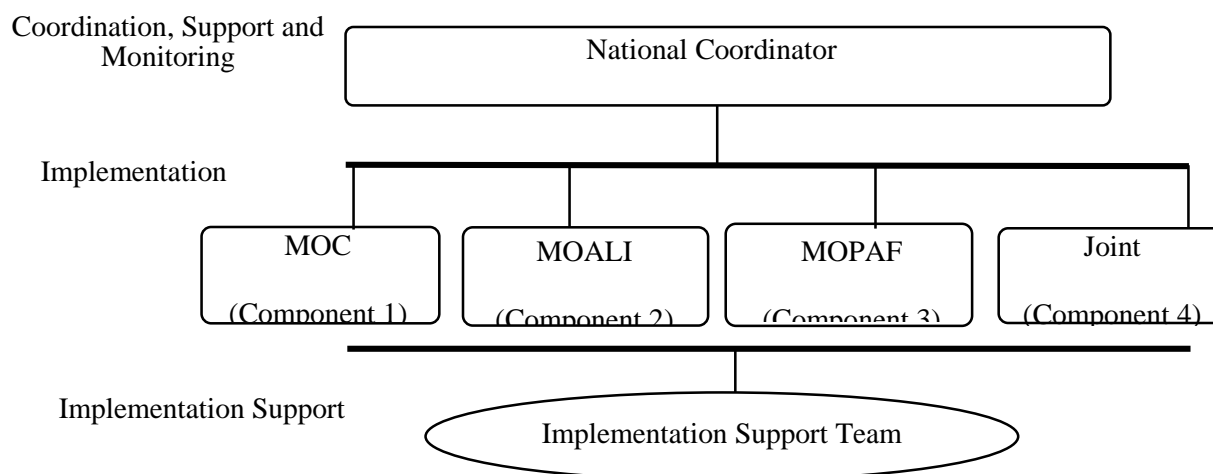
76. **Project Implementation:** MOC will be responsible for the implementation of Component 1, and DRD for the implementation of Component 2. Component Implementation Units (CIUs) will be established for both Component 1 and Component 2, respectively. Both CIUs will be led by a Director who will be responsible for component management and coordination, as well as procurement and financial management, monitoring and evaluation, and compliance with environmental and social safeguards. The CIUs will be staffed from current MOC and DRD officials. The CIUs will be supported by the IST in project implementation. Project funds will be made available for capacity-building, equipment, and incremental operating costs, as well as for recruitment of consultants. Subcomponent 3.1. Contribution to IDA IRM will follow the implementation arrangements outlined in the CERIP developed for the IDA IRM activation in response to the 2015 floods and landslides. For sub-component 3.2, following an eligible adverse natural or man-made event that causes a major disaster, the GoM - through the MOPAF - may request the Bank to re-allocate project funds from effective projects with CERCs to such components to cover emergency response and recovery costs.

77. **Safeguards Implementation:** Safeguards preparation and implementation will be carried out by each CIU. Each CIU will have a designated safeguard team with adequate staff and capacity to carry out safeguard duties including screening and scoping of sub-projects and preparation of environmental and social safeguards instruments. The CIUs will employ at least one full time national safeguards staff to support the daily implementation of the ESMF. The CIUs will also employ qualified environmental and social specialists as well as consultants to assist them in their safeguard implementation duties as needed. Additionally, it is envisaged that the CIUs will be supported by an international safeguards advisor, under the IST, on a semiannually basis, which will guide the CIUs' safeguard teams in the screening, scoping, contracting, supervising, and monitoring safeguard implementation and well as assessing CIUs' capacity and designing a capacity building program to enable adequate safeguard implementation

78. Implementation Support Team (IST): The project will work through existing implementation mechanisms/units of the line ministries with the support of a limited number of international consultants/advisers forming a project implementation support team (IST). The Project Secretariat and the CIUS will be supported by the IST in project implementation. Project funds will be made available for the required capacity-building, equipment and incremental operating costs, as well as for recruitment of non-Government staff to support (i) technical coordination and capacity-building, (ii) financial management, (iii) procurement, (iv) social and environmental safeguards compliance, (v) monitoring and evaluation, and project audits, (vi) training, communications and outreach, (vii) translation, and (viii) administrative/secretarial support. One international procurement consultant will be hired to support both MOC and DRD.

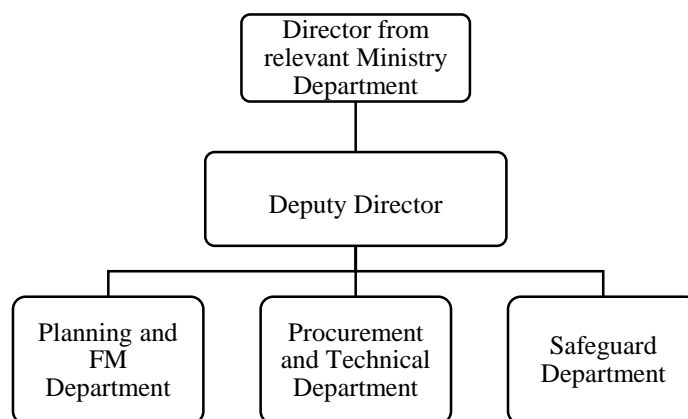
79. The IST will include: (i) an international Implementation Specialist (IST Manager) to support the Project Coordinator and the implementing agencies; (ii) an experienced international procurement advisor; (iii) a Project Accountant; (iv) monitoring and evaluation expertise; and (v) an international safeguards specialist. All these international specialists recruited competitively under project financing will work with national counterparts and carry out training programs and on-the-job training to insure know how transfer specially on World Bank procedures and guidelines. At Mid-Term review, practicality of this capacity-building approach will be assessed.

Figure A3.1. Overall Institutional and Implementation Structure



80. Figure A3.2 shows the proposed set up within the CIUs.

Figure A3.2. CIU Organization



Component 1. Climate-Resilient National Infrastructure Réhabilitation

81. Component 1 will be implemented by MOC which will provide the final approval for project documents and activities, including: (i) the annual budget plan; (ii) the implementation and procurement plan; (iii) bidding documents; and (iv) bid evaluation reports. MOC will establish a Component Implementation Unit (CIU) to implement the component.

82. A Director will lead the CIU. Currently, the Chief Engineer of Chin State at MOC headquarters in Nay Pyi Taw is appointed as CIU Director. The Director will be responsible for component management and technical coordination, as well as procurement and financial management, monitoring and evaluation, and compliance with environmental and social safeguards for all component activities.

83. The CIU will be staffed with current MOC staff. Project funds will be made available for the required equipment and incremental operating costs, as well as for recruitment of Consultants to support: (i) technical coordination; (ii) financial management; (iii) procurement; (iv) social and environmental safeguards compliance; (v) monitoring and evaluation; (vi) training, communications and outreach; (vii) translation; and (vi) administrative/secretarial support. The CIU Headquarter Office will be located in Nay Pyi Taw.

84. The CIU will monitor progress against the agreed performance indicators and produce periodic progress reports. It will produce the data for the project indicators of the Results Framework on an annual basis as well as for the mid-term review and at project completion. It will discuss project progress and performance based on the indicators from one year to another. During implementation, the CIU will recruit dedicated staff to monitor project progress and update the indicators.

85. The project sites will be far from the CIU Headquarter Office in Nay Pyi Taw. It is therefore necessary to have CIU State Offices located at project sites in each State. These CIU SOs will be responsible for day to day contract management on sites as well as the reporting function to the CIU headquarters. They also liaise with the local state authority to identify issues arisen on sites and propose solutions for CIU and/ or higher level of management. The CIU SOs will be set up by the CIU Director, in consultation and agreement with the Project Director.

Table A3.1. Component 1 - Summary of Organizational Responsibilities

Agency	Reporting Relationship	Tasks
Recovery Coordination Committee (RCC)	President Office	<ul style="list-style-type: none"> • Develop and monitor the recovery strategy • Run the Recovery Coordination Center • Provide strategic guidance to project stakeholders
Ministry of Construction (MOC)	RCC	<ul style="list-style-type: none"> • Overall Project Coordination and Management • Implementation of Component 1 • Approve Annual Budget Plan • Approve Procurement Plan • Approve Bidding Documents and Bids Evaluation Report (BER) • Approve contract changes amount in-aggregate exceeding 15% contract price
Project Secretariat	RCC/ MOC	<ul style="list-style-type: none"> • Project Coordination and Management • Perform coordination tasks among project agencies • Prepare bi-annual reports on overall project implementation status for GoM and WBG • Prepare Mid-Term Review report
Component Implementation Unit (CIU)	MOC	<ul style="list-style-type: none"> • Component Implementing Agency • Prepare and Submit required documents to MOC for approval • Prepare Bidding Document/ Bid Evaluation Report • Carry out procurement process • Sign contracts with Contractors/ Consultants • Make payment to Contractors/ Consultants • Approve contract changes amount in-aggregate less than 15% contract price • Prepare periodic Component Implementation Status Reports and send to MOC and Bank • Support CIU SO as requested
CIU State Office	CIU	<ul style="list-style-type: none"> • Liaise with local State authority to identify issues arisen on sites • Propose solutions to CIU/ MOC

		<ul style="list-style-type: none"> • Carry out day to day contract management for both works and consultancy services • Certify completed works quantity for payment to send to CIU • Prepare Request for Contract Changes • Prepare Monthly Progress Reports and send to CIU
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Component 2: Rehabilitation of Rural Roads and Livelihoods Support

86. MOALI will establish its CIU within DRD to implement the sub-component on its behalf. The DRD CIU will be led by the Director of the Roads and Bridges Department who will be responsible for sub-component management and technical coordination, as well as procurement and financial management, monitoring and evaluation, and compliance with environmental and social safeguards for all sub-component activities. CIU staff would support (i) technical coordination, (ii) financial management, (iii) procurement, (iv) social and environmental safeguards compliance, (v) monitoring and evaluation, (vi) training, communications and outreach, (vii) translation, and (viii) administrative/secretarial support. The CIU office will be located in Nay Pyi Taw. CIU will monitor progress against the agreed performance indicators and produce periodic progress reports. A CIU State Office (CIU SO), headed by a Director, will be formed at project sites in each State, overseeing day to day contract management, reporting, liaising with local state, the CIU and/ or higher level of management.

Component 3 Emergency Response

87. Component 3 will be implemented by MOPAF. Subcomponent 3.1. Contribution to IDA will follow the implementation arrangements outlined by the IDA IRM Operations Manual developed by the GoM and approved by the World Bank, and the Contingent Emergency Response Implementation Plan (CERIP) developed for the IDA IRM activation in response to the 2015 floods and landslide.

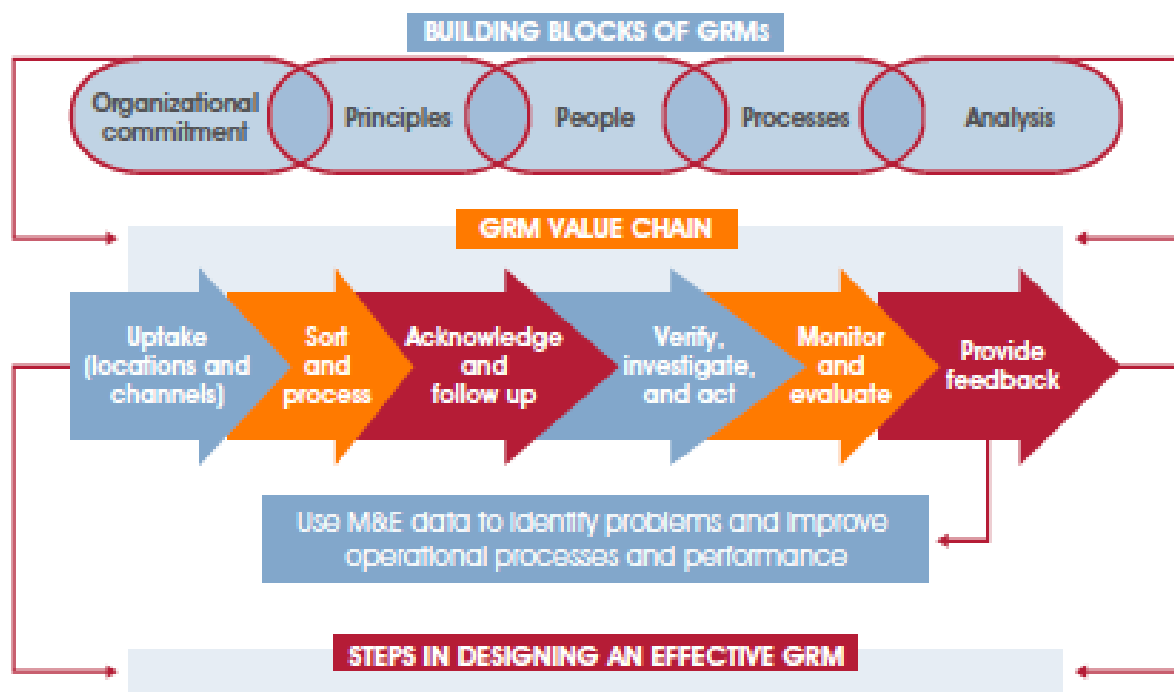
88. The MOPAF oversees the overall implementation of the IDA IRM in response to the 2015 floods and landslides, regularly updating the NNDMC and the RCC. Focal points from MOALI will oversee the satisfactory implementation of IDA IRM within their respective departments. Distribution to farm households will be done by MOALI based on records of disaster impacts and socio-economic information. The implementation of IDA IRM will be monitored through the intermediate indicators set out by the results framework. The implementation period is 12-18 month. Disbursements will be made based on the approved CERIP following OP/BP 10.00 and are subject to evaluation, examination, and approval by the World Bank, fulfilling all conditions as outlined by the IDA IRM Operations Manual. Withdrawals from the IRM projects' designated accounts will only be permitted for payment of expenses incurred, based on the CERIP.

89. For sub-component 3.2, following an adverse natural or man-made event that causes a major disaster, and after a Government declaration of a national disaster, the GoM - through the MOPAF - may request the Bank to re-allocate project funds from effective project with IRM components to this component to partially cover emergency response and recovery costs.

XI. Project Monitoring and Grievance Mechanism (GRM)

90. A grievance redress mechanism (GRM) will be developed before effectiveness by the CIUs including adequate resources, clear roles and responsibilities, procedures and guidelines. The objective of the GRM is to receive and address communities request and/or complaints relating to project implementation. Where possible, the GRM will build on existing local institutions at the Village Committees/Township levels – special emphasis will be given to the existing GRM created under the National Community Driven Development Project in Myanmar. An independent grievance redress committee will be created where there is no suitable local institution to carry out the GRM functions. A communication plan will be developed to facilitate community's understanding of the GRM functions and enable access to it. Channels will be developed to allow for community monitoring and evaluation of the construction process through means such as public hearings or ICT enabled citizen feedback platforms. The will be based on the key principles of GRMs as shown in **Figure 1**.

Figure 1 Principles of GRMs



Source: The World Bank, Feedback Matters: Designing Effective Grievance Redress Mechanisms for Bank-Financed Projects, p. 3

91. Sub-project specific safeguard instruments (e.g. ESMP, RAP, EMP) will describe the GRM in detail. Proposed below is a basic procedure that may be followed at the project level to address grievances:

- (a) **Village / Township Level (Stage 1):** An initial stage, within the local village or township level, in which any person/s aggrieved by any aspect of the Project can lodge an oral or written complaint/grievance to the local Village Committee. If the complaint cannot be resolved within 15 days of receipt between the aggrieved person/s and the Village Committee, it should be escalated to the second step of the process.
- (b) **District Level (Stage 2):** If the aggrieved person is not satisfied with the outcome of the initial stage, she/he/they can lodge the complaint to the District level DRD or MOC. If the complaint cannot be resolved within 15 days of receipt between the aggrieved person/s and the District DRD or MOC it should be escalated to the third step of the process.
- (c) **CIU / Union Level (Stage 3):** If the aggrieved person is still dissatisfied following review by the District DRD or MOC, the case should be referred to the respective CIUs. If the complaint cannot be resolved within 20 days of receipt between the aggrieved person/s and the CIUs, the aggrieved person/s may proceed to the fourth step of the process.
- (d) **IST / Steering Committee Level (Stage 3):** If the aggrieved person is still dissatisfied following review by the relevant CIU, the case should be referred to the IST, the Steering Committee, and World Bank of the complaints. If the complaint cannot be resolved within 20 days of receipt between the aggrieved person/s and these parties, the aggrieved person/s may proceed to legal proceedings in accordance with the GoM's laws and procedures.

92. It is intended that information about the GRM be disseminated widely in meetings and through pamphlets and brochures in Myanmar language and other ethnic languages as needed/relevant. Specifically, information will be provided about how and where to lodge complaints/grievances. Villagers will be encouraged to seek clarification or remediation through the mechanism if they have any questions or complaints/ grievances.

93. At all levels, the relevant grievance focal committee or organization should keep a written record of complaints/grievances raised by villagers and their resolution; they should inform the next level in the grievance structure of such complaints and resolutions.

94. Regular monitoring of the effectiveness of the GRM will be included in the monitoring and evaluation (M&E) approach for the Project. In undertaking the regular M&E activities, the following questions will be raised:

- (a) Does the project have clear, formal, and transparent internal mechanisms and rules for addressing grievances?
- (b) Do project officials responsible for grievance redress have the authority to take or demand remedial action?
- (c) Are officials responsible for grievance redress obliged to take action on all grievances?
- (d) Do project-affected people feel that they can lodge grievances without fear of retaliation?
- (e) Are project-affected people/ beneficiaries fully aware of their rights and obligations including entitlements for compensation defined in this ESMF?
- (f) Are project beneficiaries aware of their right to file a grievance and of the grievance redress procedure in general?
- (g) Are there internal processes in place to record, track, and monitor the grievances and the action taken on them?

- (h) Does the GRM provide timely feedback (written or otherwise) to the petitioner on actions taken?
- (i) Is there an appeals process in place that GRM users can access if they are not satisfied with how their grievance has been resolved?

95. Grievance redress monitoring indicators may include the following:

- (a) Number of complaints/ grievances registered.
- (b) Percentage of grievances resolved.
- (c) Percentage of grievances resolved within stipulated time period.
- (d) Time required to resolve complaints (disaggregated by different types of grievances).
- (e) Percentage of complainants satisfied with response and grievance redress process.
- (f) Percentage of project beneficiaries that have access to the GRM.

96. Apart from the aforementioned project-level grievance redress mechanisms, communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS) and Inspection Panel. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

XII. Capacity Development Plan

97. The Project Safeguards implementation arrangements and capacity building will be further design during implementation and will build upon existing mechanisms and capacity.

98. For the MoC this Project will be the first World Bank supported project. MoC has experience and built capacity to implement Asian Development Bank (ADB) funded projects and well as other development partners such as JICA and UNDP. MoC has previously created Project Management Units for ADB supported project and has built capacity for safeguards implementation.

99. The Department for Rural Development (DRD) is the GoM department with the longest experience managing World Bank projects, since 2012. DRD is also currently implementing the biggest project in the World Bank Myanmar portfolio, the National Community Driven Development Project (USD480 million), as well as the National Electrification Project's off grid electrification component (US\$90million). DRD has experience creating, implementing and monitoring safeguard instruments for rural infrastructure rehabilitation.

100. As mentioned in the Institutional Arrangement Section before, the CIUs will consist of government personnel and will employ qualified environmental and social specialists as well as consultants to assist them in their safeguard implementation duties. An international safeguards advisor, under the Implementation Support Team, will be recruited competitively to support the implementation of this ESMF on a semiannual basis. It is expected that the International

Safeguards Specialist will work with national counterparts both government and consultants to carry out the activities included in this ESMF. The International Safeguard Specialist will also carry out a capacity assessment and design a Capacity Building Plan for the CIUs. The Capacity Building Plan will likely include formal training programs mentoring, specific technical support, learning-by-doing training, and other activities to ensure know how transfer specially on World Bank procedures and guidelines included in this ESMF.

XIII. Estimated Cost

101. **Table 3** provides some indicative costs to implement the ESMF.

Table 3 Estimated Costs for ESMF Implementation (in US\$)

A. Environmental and Social Instruments based on investment Planning Costs	
Component 1, 1% of estimated investment USD 105 million	1,050,000
Component 2, 1% of estimated Investment USD 70 million	700,000
Subtotal	1,750,000
B. Specialized Safeguard Staff	
Component 1 International Advisor (6months for 5 years)	96,000/year
Component 2 International Advisor (6months for 5 years)	96,000/year
Subtotal	960,000
C. Training	
Safeguard Capacity Building (3 workshops first year)	5,000 workshop
Safeguard Refresher (1 workshop remaining 4 years)	5,000 workshop
Specific training for local staff/contractors (4 workshop per year)	5,000 workshop
Subtotal	170,000
Contingency 15%	432,000
TOTAL	3,312,000

XIV. Consultation and Disclosure

102. The Project will follow World Bank Group Safeguard Policies for participation, consultation, and disclosure concerning safeguard aspects of the Project as described in this ESMF. The Project aims at achieving meaningful consultation that is a two way process in which beneficiaries provide advice and input on the design or the proposed subproject that affect their lives and environment. Meaningful consultation shall promote dialogue between government, communities, NGOs and implementing agencies to discuss relevant aspects of the Project and its sub-projects. Consultation is an ongoing process and will be carried out both during subproject preparation and implementation. Consultations with project affected people have been undertaken as part of preparation of this Project and will continue throughout project implementation.

103. The Project supports decision making by allowing the public access to information on environmental and social aspects of the project, as included in World Bank Safeguard Policies, including for Environmental Assessment, Involuntary Resettlement and Indigenous Peoples. This ESMF and the site specific ESIA/ESMPs/RAPs/EMPs prepared for the sub-projects will be disclosed to the public. After disclosure of safeguards documents in English and Myanmar

language, the GoM carries out three public consultations on the draft ESMF in Yangon, Chin State and Bago region. A summary of the results of these consultations is included in Annex 9.

104. Safeguard instruments should be made available to communities and interested parties at accessible locations, including through local government authorities (e.g. village and district level DRD and MOC offices) before work starts. They should be made publicly available in a manner understandable to affected people, which may include local languages if needed. The EMP, if and when prepared, should also be made available to the affected ethnic minority communities in places, manner and language that are accessible to them.

105. The CIUs will also inform the affected communities and other relevant stakeholders on any modification to environmental and social management plans. The CIUs will use a variety of communication tools that will be included in the communication strategy and could include infographics, leaflets and frequent questions and answers to be distributed among different stakeholders

106. Any revised safeguards documents taking into account feedback received during consultations will be (a) re-disclosed at the country level and at public places accessible to project-affected groups and local institutions; (b) officially submitted to the World Bank for clearance; and (c) submitted for disclosure on the public World Bank's Infoshop.

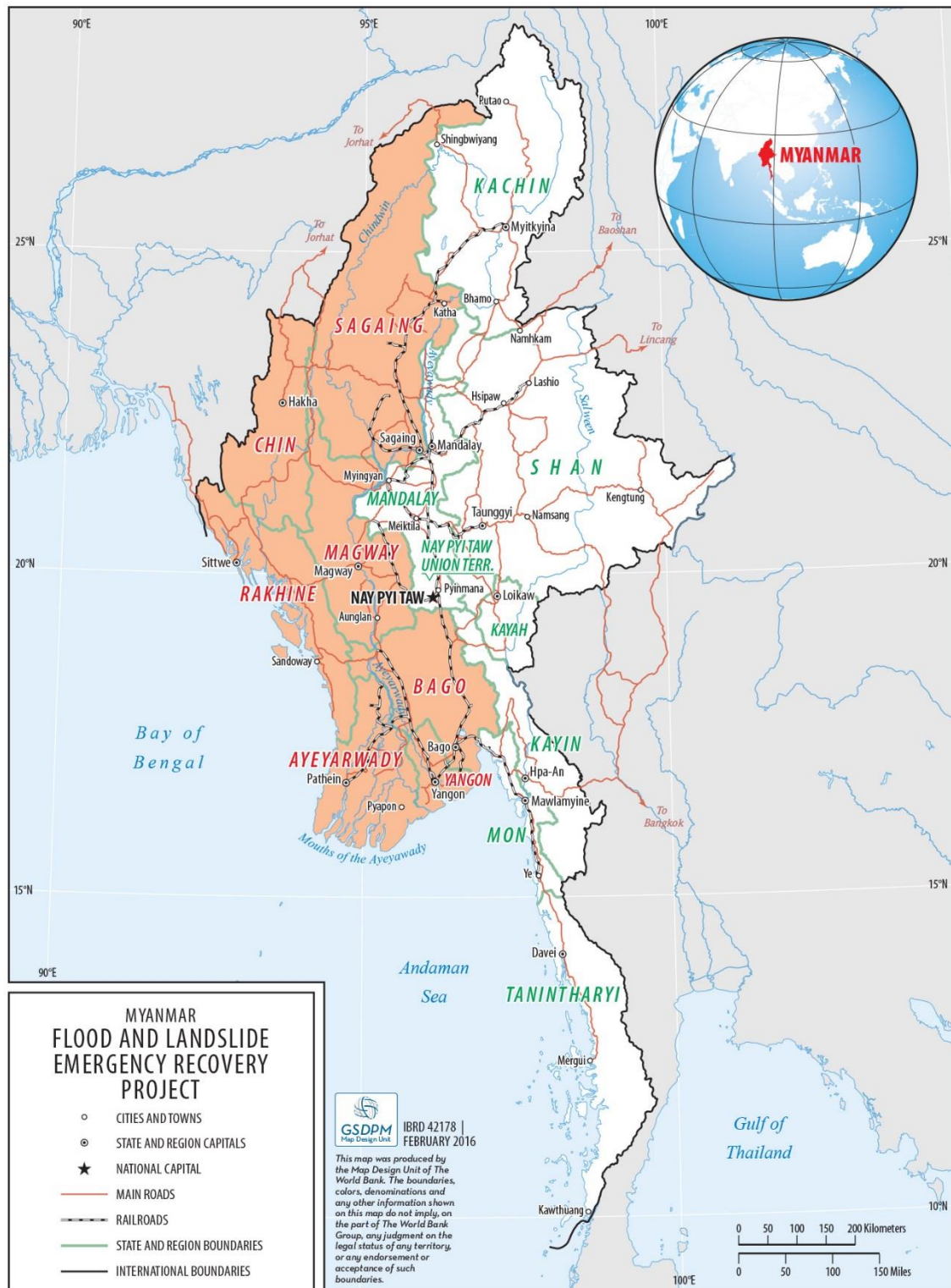
XV. Implementation Schedule

107. A summary of the implementation schedule for safeguards is provided in Table 4.

Table 4 Safeguard Implementation Schedule

Activities	Responsibility	Timeframe
ISDS disclosed in InfoShop	WB	March
Designation of environmental and social focal point at implementing agency(ies)	MOC, DRD	March, 2016
Draft ESMF/ EMPF/ RPF	MOC, DRD	March 16, 2016
Draft ESMF / EMPF/ RPF translated into local languages and disclosed in-country	MoC, DRD	March 31, 2016
Consultations	MOC, DRD	April-May, 2016
Clearance of revised ESMF/ EMPF/ RPF by WB; and disclosure by GoM and in WB's InfoShop	WB, MOC, DRD	May, 2016
ESMF/ EMPF/ RPF orientation/ training to implementation support agencies	MOC, DRD, WB	Together with project launch

Annex 1. Map of Myanmar with Project Investments



Annex 2. Social Safeguard Screening Procedures and Safeguard Instruments

1. **Screening for Social Impact and Development of Resettlement Instruments:** people who are negatively affected by the project are entitled to compensation for loss of assets at replacement costs. The screening aims to identify if direct economic and social impacts may occur due to the involuntary taking of land which results in:
 - (a) relocation or loss of shelter;
 - (b) lost of assets or access to assets; or
 - (c) loss of income sources or means of livelihood, whether or not the affected persons must move to another location.
2. Screening will be conducted to all project activities regardless of the source of financing and including Technical Assistance activities. It will also be conducted to other activities that may resulting in involuntary resettlement, including any preparatory works that the GoM may have conducted to the Sub-project proposed for the Bank's financing, that in the judgment of the Bank, are:
 - (a) directly and significantly related to the Bank-assisted project,
 - (b) necessary to achieve its objectives as set forth in the project documents; and
 - (c) carried out, or planned to be carried out, contemporaneously with the project.
3. If the screening finds impacts described above may occur, or may have occurred during the implementation of the preparatory works, the respective implementation agencies will carry out a census to develop the detailed list of affected people, and assess the scale and scope of impact that may occur or may have occurred to each affected household in a participatory manner. Efforts will be made to adjust designs of investments to minimize loss of assets and future income streams based on the result of the impact assessment.
4. Based on the result of census and social impact assessment, the implementation agency will develop a **Resettlement Action Plan (RAP)** which will provide measures to help affected people at least restore the pre-project level of livelihood. If fewer than 200 people will be affected, an abbreviated RAP will be developed. The following groups of people will be covered by the RAP or the abbreviated RAP:
 - (a) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);
 - (b) those who do not have formal legal rights to land at the time of census but have a claim to such land or assets--provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan
 - (c) those who have no recognizable legal right or claim to the land they are occupying.
5. If the screening finds that any loss of private land or assets, or any other impacts described above have occurred during the preparatory works conducted by the MoM, a **Corrective Action Plan (CPP)** will be developed. In such an event, the implementation agency will swiftly inform the Bank for guidance.

6. Detailed processes and procedures for the preparation of an abbreviated RAP and a full RAP, including consultation and disclosure requirements and table of contents, will be included in the project operations manual, but the a RAP will include the following, at minimum:
- (a) The description of the project objective and activities
 - (b) Potential impacts, and mechanisms to minimize negative impact
 - (c) Characteristics of affected people including vulnerable people among them and issues related to land tenure
 - (d) Legal and institutional framework
 - (e) Eligibility criteria
 - (f) Valuation and compensation for losses at replacement cost
 - (g) Programs for improvement or restoration of livelihoods and standards of living
 - (h) Institutional arrangement
 - (i) Consultation and participation arrangements
 - (j) Implementation schedule
 - (k) Grievance procedures, and monitoring and evaluation
 - (l) Cost and budget
7. **An abbreviated RAP (ARAP)** may include the following, at minimum:
- (a) a census survey of displaced persons and valuation of assets;
 - (b) description of compensation and other resettlement assistance to be provided;
 - (c) consultations with displaced people about acceptable alternatives;
 - (d) institutional responsibility for implementation and procedures for grievance redress;
 - (e) arrangements for monitoring and implementation; and
 - (f) a timetable and budget.
8. The project allows local people who benefit from the project to donate land and other private assets without compensation at replacement cost if following protocol are followed:
- (a) Voluntary donation are an act of informed consent and affected people are not forced to donate land or other assets with coercion or under duress, or misled to believe that they are obliged to do so.
 - (b) Voluntary donation is allowed only if a sub-project can technically be implemented in another location than where it is planned – if a sub-project is location-specific by nature, land acquisition associated with such a sub-project cannot be considered as voluntary; rather, it is an act of eminent domain. In such cases, an abbreviated RAP or a full RAP, as applicable, is developed.
 - (c) Voluntary donation is allowed only for very minor impact that meets the following criteria:
 - i. The households contributing land or other assets are direct beneficiaries of the sub-project;
 - ii. The total size of productive land owned by the affected household is more than 300m²;
 - iii. The impact is less than 5 percent of the total productive assets owned by said household; and
 - iv. No one has to be physically relocated
 - (d) The affected people are fully informed that they have the right to refuse to donate land and instead receive compensation at replacement cost, and that a grievance mechanism is available to them through which they can express their unwillingness to donate.

- (e) The project staff will confirm through a face-to-face meeting that the affected people are indeed aware that they are entitled for compensation and knowingly agree to donate land or other assets without compensation. The minutes of this meeting, which include confirmation that all conditions for voluntary donations provided in this ESMF are met, are attached to the signed voluntary donation form.
- (f) Once the informed consent of the affected people has been confirmed in writing, the respective implementation agencies will develop a voluntary donation form. Both the husband and the wife of the affected household sign the form in the presence of the community facilitator and the village implementation committee.
- (g) The respective implementation agencies will review and approve the signed voluntary donation form, and keep one original, signed voluntary donation form for review by the respective implementation agencies and the World Bank. The affected household keeps another original, signed form.
- (h) Implementation of sub-projects involving voluntary donation starts only once the signed voluntary donation forms are approved by the Project Secretariat.

9. **Ethnic Screening, Social Assessment and Ethnic Minority Plan:** at an early stage of sub-project design, the implementation agency with the help of safeguard specialists will identify if any ethnic minority community is present in or have collective attachment to areas where respective sub-projects would be implemented. All social and cultural groups who may possess the following characteristics in varying degrees will be identified:

- (a) self-identification as members of a distinct ethnic, religious, or cultural group;
- (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories
- (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- (d) an indigenous language, often different from the official language of the country or region.

10. If an ethnic minority community is found to be present in or have collective attachment to the area of influence of respective sub-project, a simple **Social Assessment (SA)** will be conducted which will include free, prior and informed consultations with affected ethnic minorities. The breadth, depth, and type of analysis are proportional to the nature and scale of potential impacts on ethnic minorities, but overall, the SA will include the following elements, as needed:

- (a) A review, on a scale appropriate to the project, of the legal and institutional framework applicable to ethnic minorities;
- (b) Baseline information on the demographic, social, cultural, and political characteristics of the affected ethnic minorities, the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend;
- (c) Key project stakeholders and the elaboration of a culturally appropriate process for consulting with ethnic minorities;
- (d) An assessment, based on free, prior, and informed consultation with the affected ethnic minorities, of the potential adverse and positive effects of the project.
- (e) Measures to avoid or minimize, mitigate, or compensate for adverse effects on affected ethnic minorities, and to ensure that they receive culturally appropriate benefits, developed based on free, prior, and informed consultation with the affected ethnic minorities.

11. On the basis of the SA and free, prior and informed consultation, an Ethnic Minority Plan (EMP) will be prepared by the respective implementation agencies. The SA may be done and the EMP be developed at the subproject level or for the annual investment plan.

Annex 3 Environmental Instruments

An **Environmental and Social Impact Assessment (ESIA)** will apply to sub-projects that involve more complex environmental and social analysis (e.g. rehabilitation and reconstruction works which involve re-alignments or strategic widening and expansion including opening and operation of quarries; and when vulnerable social groups¹⁸ are found to be present in subproject areas who face risks of exclusion from project benefit). An **Environmental Code of Practice (ECOP)** should be sufficient to address minor environmental impacts associated with sub-projects. An ECOP has been prepared and will be incorporated into bidding documents and/or contracts (refer Annex 7). For construction-related and site-specific environment and social issues that do not require further data collection and analysis, an **Environmental and Social Management Plan (ESMP)** would suffice. Where the screening finds vulnerable social groups in subproject areas, ESMP would also include measures to ensure that they are given fair and equitable opportunities to benefit from the Project.

Elements of an Environmental and Social Impact Assessment

An ESIA is undertaken for Category B projects/sub projects that will require additional project-specific data/information and further analysis to determine the full extent of environment and social impacts, which cannot be supplied by an Environment and Social Management Plan (ESMP) and/or an Environmental Code of Practice (ECOP). An ESIA will apply to sub-projects that involve more complex environmental and social analysis (e.g. rehabilitation and reconstruction works that include re-alignments or strategic widening, and expansion including opening and operation of quarries; and when vulnerable social groups are found to be present in subproject areas who face risks of exclusion from project benefit).

Basis of the decision. The outcome of the initial social and environmental screening will inform whether there are project-specific issues that will require further data and analysis through the conduct of an ESIA.

Why not an ESMP or ECOP? For construction-related impacts, an **ECOP** should be sufficient to address environment and social issues. For construction-related and site-specific environment and social issues that do not require further data collection and analysis, an **ESMP** would suffice.

The suggested outline of a Limited ESIA is given below.

Outline of an ESIA Report

- | |
|--|
| <ul style="list-style-type: none">a) Introductionb) Description of the Project/Sub Projectc) Policy, Legal and Administrative Framework Requirementsd) Environmental and Social Baselinee) Alternatives Consideredf) Potential Environmental and Social Impactsg) Environmental and Social Management Plan |
|--|

¹⁸ For those social group who meet the definition of the ethnic minorities under the Ethnic Minority Planning Framework (EMPF) attached to this ESMF, processes and procedures provided under the EMPF.

h) Public Consultation and Disclosure

1. **Introduction.** The section should cover the following:

- Purpose of the Limited ESIA (main purpose is to collect additional information/data and further analyze project-specific environment and social issues.
- Scope of the ESIA study (including magnitude and special features of the study).

2. **Description of the Project/Sub Project.** The description of the project should include:

- Physical characteristics of the project (describe the type and need for project, specific location showing project boundary, project layout, including map).
- Size or magnitude of operation including any special characteristics of the project and any ancillary facilities and potentially linked activities relevant to the project.
- Land requirements during construction and operation.
- Proposed schedule for approval and implementation.

[The information can be retrieved from the feasibility study or engineering report, from the PID / PAD or background paper or studies underpinning the Project]

3. **Policy, Legal and Administrative Framework.** The section should cover both applicable/ relevant World Bank safeguard policies and country specific policy, legal and administrative frameworks and applicable rules and regulations relevant to the project during its preparation and execution (such as Environmental Conservation Law 2012; Environmental Conservation Rules 2014 Environmental Impact Assessment procedures, draft quality standards).

- Relevant Bank policies include OP 4.01, Environmental Assessment; OP 4.04, Natural Habitats; OP 4.09, Pest Management; OP 4.36, Forests; OP 4.37, Dam Safety; OP 4.10, Indigenous Peoples; OP 4.11, Physical Cultural Resources; OP 4.12, Involuntary Resettlement; OP 7.50, International Waters; and, OP 7.60, Projects in Disputed Areas. The project/sub project screening report would identify the World Bank's environmental and social safeguard policies applicable to the project. This guidance should be used to identify the relevant policies applicable to the project and how they will be addressed.
- Country specific policy, legal and administrative framework and applicable rules and regulations relevant to the project will include social and environmental requirements and the relevant approval, permitting and licensing obligations to process and execute the project. It will also identify relevant international environmental agreements to which the country is a party.

4. **Environment and Social Baseline.** This section contains environmental and socio-economic baseline descriptions of the project area of influence. Only relevant information within the project area of influence should be included/presented as opposed to presenting

information outside the project area of influence (e.g., presenting a nationwide data for project-specific baseline information does not make sense). It should include:

- Physical resources such as topography and soils, surface and ground water, air quality, and climatic factors, geology/seismology.
- Ecological resources such as natural habitats, forests, wildlife, aquatic resources, protected areas, coastal resources, rare or endangered species.
- Social, ethnic and demographic baseline such as population, ethnicity, religion, migratory history, access to social services, physical, archeological and cultural heritage, land resources, etc.
- Special attention will be paid to vulnerable social groups who face potential risks of exclusion from project benefit by way of age, disability, literacy, poverty or any other driver of vulnerability. Levels and sources of vulnerability, and risks of exclusion from project benefit, will be assessed and documented.
- Economic development, e.g. water, sewerage, flooding, agriculture, rural development, transportation, power infrastructure, agricultural development, etc..

5. **Alternatives Considered.** Consideration of alternatives enhance project design through examining options instead of focusing on a single low impact design. This requires systematic comparison of feasible alternatives for the proposed project, including “no action” alternative. The alternatives should be compared in terms of their
- potential environmental and social impacts.
 - capital and operating costs
 - suitability under local conditions.
 - health and safety.
 - availability of land.
 - institutional and monitoring requirements.

Note: The comparison and selection of the alternative may also require detailed technical analysis. A road project may identify a number of different routes based on a set of predetermined criteria. The selection of the most appropriate route must include social and environmental factors and not just technical and economic factors i.e. cost.

6. **Potential Environmental and Social Impacts.** This section will evaluate the significant environmental and social effects of the selected project alternative. This would include:
- direct, indirect, cumulative and induced impacts.
 - short, medium and long-term impacts.
 - temporary and permanent impacts.
 - positive and negative effects of the project/sub project.
 - impact during construction, operation and maintenance and rehabilitation/ decommissioning of the project at the end of its projected life.
 - potential risks that vulnerable social groups cannot receive project benefits despite their eligibility, in terms of access to temporary jobs, access improvement, etc.

7. The report will explain

- how the project design minimizes the adverse impacts.
- how the design incorporates offsetting or compensating measures to enhance the positive benefits or quality of the environment. For each significant adverse environmental and social impact, the report will describe the measures envisaged to prevent, reduce and where possible to mitigate or offset any significant adverse effects on the environment or community/social structure.
- the extent to which the proposed project will irreversibly impact the potential use of a resource e.g. construction of a road through stream corridors or wetland that may curtail the use of or cause irreversible damage to sensitive ecosystems.
- how the proposed project will ensure that fair and equitable opportunities will be given to vulnerable social groups to benefit from the project.
- impacts during construction and operation and discuss proposed remedial measures.

8. **Environmental and Social Management Plan (ESMP).** The plan will describe the impacts to be mitigated, the associated remediation measures and the mechanism (design, technical specifications, contract specs, etc.) used to mitigate the impacts. The report will describe

- what, where, when and how the mitigation measures will be implemented and who will implement them, including measures to ensure fair and equitable access to project benefits for vulnerable social groups .
- an environmental and social monitoring plan that shows the parameters to be monitored, and where, when and how the parameters will be monitored and who will monitor them.
- the cost of mitigation measures (if not built into the project design and contract specifications).
- the cost of compensatory measures and the monitoring and training costs .

9. **Environmental and Social Monitoring.** Given the small size of the projects, and the lack of laboratory facilities and institutional capability, most monitoring will be done visually or using portable hand held meters. Visual monitoring could include:

- changes in land use.
- change in color of water.
- presence or absence of dusty air during construction.
- number of trees cut.
- evidence that fair and equitable access is provided to vulnerable social groups to receive project benefits.
- others

10. **Public Consultation and Disclosure.** The section will describe the public consultation process (newspaper advertisement, radio talk shows, social media, posters, internet disclosure) undertaken to seek the public and other stakeholders' (local officials, community leaders, NGOs, beneficiaries, etc.) input in the project design and

implementation. It will list the major comments received and how they will be addressed in the project design and during construction and operation. The report will list major milestone dates when the consultation meetings were announced, the release of the information / reports in local language, record of the attendees, topic of the meetings and a summary of the opinions and comments offered by the participants. It will discuss the compliance of the consultation and disclosure process with the country's regulatory framework. Finally the section will include the dates and summary of the information disclosed, and procedure for future disclosure.

Elements of an Environmental and Social Management Plan for Road Projects

Outline of an ESMP

- | |
|--|
| <ul style="list-style-type: none"> i) Project Descriptions, including Components, Costs and Location j) Potential Environment and Social Impacts and Mitigating Measures, including measure to ensure fair and equitable access to project benefits for vulnerable social groups k) Monitoring l) Institutional Arrangements and Capacity Building |
|--|

Project Descriptions

This section should describe the project, development objective, components, activities, location, project costs. In the context of this project, road construction normally means rehabilitation of existing roads which may involve widening of the road, replacement and /or strengthening of road pavement, drainage and side slope improvements, culvert and or bridge installation, installation of roadside furniture, etc. Sometimes it may also include realignment of short stretches of the road.

[Information can be downloaded from the Project Concept Note/Project Appraisal Document. Map, if available, showing the location, lay out of the project, ancillary facilities and potentially linked activities, should also be included].

Potential Environmental and Social Issues and Mitigating Measures

The major impacts and measures should be described and are summarized below.

Potential exclusion of vulnerable groups from receiving project benefits will addressed through:

- A thorough social baseline conducted by a qualified social specialist to identify vulnerable social groups in subproject areas based on a literature review, direct observation, key informant interview with knowledgeable people including CSOs active in the areas, etc,
- A consultation meeting and information dissemination campaign to ensure all social groups including vulnerable social groups are aware of the eligibility criteria, application procedures, terms of benefits, etc.,

- A fair and transparent selection and prioritization methodology to ensure that subproject locations and direct project beneficiaries (e.g. those who are employed for construction works) are selected based on an objective criteria set out in the Project Operations Manual.
- Public posting of the list of direct beneficiaries in a language understandable to local people
- Effective GRM to allow local people to voice grievances.
- Close project monitoring to ensure a fair and equitable remuneration of local people hired under the project and the provision of other project benefits based on objective criteria.

A meaningful and effective implementation of ESMP will be achieved by integrating the ESMP with the design and in the bid documents. To ensure that the bid documents reflect the real cost of environmental mitigation in their bids important mitigation items will be included as a “line item” in the Bill of Quantities. Thus there would be an identified extra payment in the contract to ensure that the work is carried out by the Contractor as specified.

During Construction

- **Site clearance** for right-of-way and establishing Contractor’s work camps, staging areas, concrete and asphalt plants, and so on, involves loss of vegetation including trees, loss of top soil, generation of waste material and generation of dust.

Measures. The impacts can be minimized or mitigated by minimizing the areas to be cleared, salvaging crops, chipping the vegetation for use as mulch, salvaging the top soil for future use, applying dust control measures, etc.

- **Sourcing of construction materials** will involve creating borrow pits for earthworks materials; transport, stockpiling and use of such materials; disposal of unsuitable materials, recycling reuse or disposal of pavement materials, etc. This has the potential to cause loss of farmlands or encroachment on forest land or wetland to extract suitable materials and also cause traffic and safety issues resulting from materials transport, storage and handling.

Measures. The mitigation measures include identification of alternative source of material, installation of temporary runoff / sediment control structures; dust and noise control; management of transportation, storage, and materials handling activities; borrow area reclamation, and so on. The opening and expansion of quarries could potentially require an ESIA.

- **Access roads** to borrow and disposal areas, quarry sites, construction / labor camps and other ancillary facilities are necessary to facilitate access to these sites. Apart from direct impacts (dust, drainage, safety, etc.) resulting from the construction of the access roads, the alignment of the road could result in increased exploitation of the natural resources in some areas.

Measures. The impacts can be remedied by the use of existing roads, upgraded where necessary, and by avoiding construction in or near protected and or sensitive areas.

During Operation and Maintenance

- **Operation and Maintenance Phase:** The rehabilitation of the road would likely lead to improved traffic flow and communications, and it will also result in increased air pollution, traffic noise, and accidents.

Measures. The measures will include cost for appropriate signs, public awareness campaign to promote safety, enforcement of traffic laws, upkeep / increase roadside plantation, and where appropriate construct noise barriers near sensitive locations.

The ESMP will include as detailed an implementation schedule as possible. This schedule will be updated as detail design progresses. The budget to implement the ESMP will be estimated and included in the total project cost. Some aspects of the ESMP (such as top soil stripping and stockpiling, regular watering to control dust, etc.) will be part of good engineering design and will not require supplementary budget. Others such as road side plantation, converting borrow areas into water storage ponds, and so on will require additional budget, which will be estimated and included in the cost of implementing the ESMP.

Monitoring

Dust monitoring. As a principle, only those parameters which are pertinent to the project will be monitored. For example, where dust is a major source of impact, especially near schools, hospitals and residential areas, visual assessment/monitoring will be used to trigger watering of the site generating dust.

Noise will be measured by a hand held noise meter on areas close to key communities buildings such as hospitals, schools, etc. In all cases, as soon as the monitoring results are available, the Contractor will be expected to remediate the problem immediately.

Most of the interventions of this project are expected to be small in size and the impacts will likely be small, site specific and short lived. The Project in consultation with the Environmental Conservation Department will develop project specific construction and operational monitoring plans including parameters to be monitored, procurement of portable and hand held equipment such as noise meters, water quality measuring kits, air quality measuring meters, etc. The cost of construction and operational monitoring, equipment, reporting, and training will be included in the project budget,

Fair and equitable access to project benefit. The social safeguard specialist hired by the project implementation agency will monitor closely to ensure that all social groups are given equal access to project benefits based on objective criteria set out in the Project Operations Manual.

Institutional Arrangements and Capacity Development

Most line ministries in Myanmar have limited capacity and capability in environmental area. This section will describe the institutional arrangement, safeguard staffing, and level of responsibility for implementing, supervising and monitoring of the ESMP during the construction and operational phases.

For contracts executed by local contractors there will likely be a need to train not only the CMU staff but also the contractor's staff. An International Safeguard Advisor, under Component 4, will be recruited and work together with the MOC and DRD component management units to elaborate an specific capacity building plan to facilitate the implementation of the Project.

ESMP Matrix for Road Construction Projects

Environmental Issues and Objectives	Mitigation Measures	Remarks
Design / Pre Construction Phase		
Protection of Sensitive Natural Areas <ul style="list-style-type: none"> Minimize negative impacts on sensitive environment 	<ul style="list-style-type: none"> Identify potential environmentally sensitive areas Avoid or locate optional construction sites/activities away from sensitive areas. Ensure construction personnel are aware of locations of sensitive areas Include temporary fences / barriers to restrict construction activities from encroaching sensitive area 	<ul style="list-style-type: none"> Inspect the alignment for unique features and environmentally sensitive areas which require design accommodation or protection Develop replantation program using local flora and in consultation with the local communities
Road Safety and Environmentally Sound Design <ul style="list-style-type: none"> To avoid accidents during and after construction of the road To provide sound drainage 	<ul style="list-style-type: none"> Include footpaths and pull-off bays in villages and near markets, schools, and other community facilities in design Include occupational health and safety requirements for the construction activities in the contract documents. Provide cross walks, speed bumps near schools, hospitals, and markets in the design Ensure sufficient visibility along the road section and provide light and warning signs in design Provide camber to effectively drain runoff away from road Include cross drains at causeways, bridges, culverts, etc. 	<ul style="list-style-type: none"> Identify natural drainage pattern and soil percolation rates to design for rapid disposal of road runoff Identify and include traffic calming options in design for roads passing through villages, near market places, schools, hospitals, gathering places, etc.
Cultural Heritage <ul style="list-style-type: none"> To avoid damage to cultural heritage sites i.e. 	<ul style="list-style-type: none"> When a cultural heritage site is identified during the construction, Contractor is to cease all work 	<ul style="list-style-type: none"> Carry out public / community consultations prior to the start of construction and identify potential sites

ceremonial sites and burial grounds	<p>immediately and notify the relevant cultural institute</p> <ul style="list-style-type: none"> • Include temporary fences / barriers to restrict construction activities from burial grounds and other cultural heritage sites 	<ul style="list-style-type: none"> • Include a chance find protocol in the contract documents
Fair and equitable access to project benefits	<ul style="list-style-type: none"> • A thorough social baseline to identify vulnerable social groups in subproject areas • A consultation meeting and information dissemination campaign • A fair and transparent selection and prioritization methodology • Public posting of the list of direct beneficiaries in a language understandable to local people • Effective GRM to allow local people to voice grievances. • Close project monitoring 	<ul style="list-style-type: none"> • A qualified social specialist will carry out social baseline
Environmental Issues and Objectives	Mitigation Measures	Remarks
Construction Phase		
<p>Soil erosion, sediment and storm runoff control</p> <ul style="list-style-type: none"> • Minimize the amount of sediment lost from the site • Minimize impact of storm water containing sediment and contaminated runoff water on streams and coastal areas 	<ul style="list-style-type: none"> • Limit ground disturbance to areas of a workable size • Schedule construction to minimize areas of soil disturbance during wet seasons • Keep vegetation clearing to a minimum • Where vegetation was removed, re-vegetate all areas immediately after construction activity finishes with native species and where the area is not to be paved after final land contouring • Reduce the time excavated drainage channels remain unsupported • Place geotextile silt traps at drainage ditches and materials stockpiles 	<ul style="list-style-type: none"> • Apply to all activities such as site clearance, borrow areas, quarries, construction camps, etc. where clearing is required

	<ul style="list-style-type: none"> • Contain or isolate construction areas from other surface runoff. Clean and rehabilitate the area when construction is complete • Pass storm water run-off from construction areas through geotextile silt traps before discharge into culverts or drainage systems. • Prohibit discharge of sediment bearing contaminated water to streams and ocean 	
Management of Stockpiles and Spoil-heaps <ul style="list-style-type: none"> • To minimize dust and runoff 	<ul style="list-style-type: none"> • Identify dumping / stockpile locations with local landowners • Ensure that stockpile or spoil-heap locations do not block surface runoff or natural drainage • Install proper drainage to isolate the stockpile / dumping sites • Minimize erosion and sediment runoff by covering or vegetating spoil-heaps or stockpiles especially if prolonged exposure is envisaged, • Keep maximum stockpile height at 3m to prevent windborne deposition • Place geotextile silt traps around materials stockpiles • Ensure that no stockpiles are able to release material into the sea or streams even under heavy rain or windy conditions • Stockpiles within 20m of water should be fitted with silt traps and covered to prevent windborne deposition into the waters. • Ensure that silt from silt traps do not drain into water 	<ul style="list-style-type: none"> • Applies to all dumping areas and materials storage areas such as stone crushers, concrete batch plants, asphalt plants, topsoil storage areas, etc.
Material Management <ul style="list-style-type: none"> • Minimize impacts of materials delivery and waste disposal 	<ul style="list-style-type: none"> • Develop and implement materials delivery and waste disposal handling plan, to avoid / minimize materials delivery during peak traffic periods • Implement safety measures for vehicle operation and to prevent loss of load from trucks 	<ul style="list-style-type: none"> • Applies to all materials extraction, storage and management areas

	<ul style="list-style-type: none"> • Implement methods to reduce dust emission from the loads • Place silt fences around materials stockpiles • All imported material to be free of organic matter, obtained from certified clean sources and/or fumigated prior to arrival in country • For imported materials, ensure adequate docking and storage facilities at point of transfer from barge • Use water sprays or covered chutes to reduce dust emission during loading and unloading of materials from barges; • Maintain materials processing plant in good working condition so as to reduce emission from the plant; 	
<p>Extraction of Materials</p> <ul style="list-style-type: none"> • To ensure that extraction of materials does not cause damage to local environment 	<ul style="list-style-type: none"> • Balance cut and fill and explore availability of suitable materials from other ongoing projects • Obtain borrow materials from designated or approved borrow areas • Restore and re vegetate borrow areas to promote natural drainage • Place silt fences around materials stockpiles • Ensure haul trucks are not over loaded and are covered • Ensure that materials are not stored below the high water mark • If possible, obtain sand, aggregates, gravel and stones from licensed operating quarry • Warn and clear people from surrounding areas before blasting • After completion of construction, restore quarry site as per quarry rehabilitation plan 	<ul style="list-style-type: none"> • New quarry site to be confirmed by geotechnical investigations • Locate quarry away from natural / sensitive habitats • Ensure minimum groundwater impact • Prepare quarry rehabilitation plan and secure quarry operating license

<p>Storage and handling of fuel and lubricants</p> <ul style="list-style-type: none"> To minimize hazards relating to fuel, oil, paints etc. 	<ul style="list-style-type: none"> Store fuel oil and bituminous products in a dedicated, contained location away from drainage ditches. Fuel in excess of 1,000 liters stored on site, should be stored in sealed tanks on a concrete base that is bunded to hold 110% of the tank capacity. Install oil and water separators in all workshops Only nominated authorized personnel to handles fuel Develop procedures for cleaning up accidental spills. Report any major spill immediately to Supervisor Collect and dispose of all waste oil, oil and fuel filters at an approved landfill. 	<ul style="list-style-type: none"> Applies to all workshops, depots, storage sites work sites, construction plant sites and vehicles parking areas
<p>Offsite and Waste Management</p> <ul style="list-style-type: none"> To prevent / minimize contamination from solid wastes, site drainage and sewage 	<ul style="list-style-type: none"> Contain all inert solid waste within construction sites and remove to landfill Remove all hazardous waste, including bitumen containers Prepare procedures for managing spills to ensure rapid containment, immediate site cleaning and appropriate disposal Crush, and remove all nontoxic and nonhazardous inorganic solid waste to landfill Develop a plan for handover, sale or removal of all plant, vehicles and machinery at the end of the contract, ensuring that no unserviceable items of equipment are left behind Install onsite toilets with appropriate management arrangements for effluent and collection of sludge to prevent any release of contamination into the soil. Liaise with Local Authority for appropriate collection and disposal of sludge 	<ul style="list-style-type: none"> Applies to all off-sites storage and disposal sites Consider reuse of effluent from concrete batching plant after treatment

	<ul style="list-style-type: none"> • Compost or use as animal feed all green or organic wastes • Reuse treated onsite drainage effluent for dust control, equipment washing, etc. 	
Air Quality / Dust <ul style="list-style-type: none"> • To minimize and control dust generation and emissions from asphalt plant 	<ul style="list-style-type: none"> • Asphalt plant generation (smoke, dust, smell, etc.) to meet regulatory requirements for temporary asphalt plant • Minimize exposed soil / material stockpile surfaces to wind • Install wind breaks or fences around material stockpiles, concrete batching and asphalt plants • Spray water on exposed soil surfaces and access roads • Asphalt plant should be equipped with either bag house or wet scrubber particulate removing system 	<ul style="list-style-type: none"> • Where possible, use existing, operating, licensed asphalt plant • New asphalt batching plant should be located 300-500m downwind of any settlements or inhabited areas and 150m away from any water bodies, streams or rivers
Noise <ul style="list-style-type: none"> • To ensure that nuisance from noise minimized 	<ul style="list-style-type: none"> • Use modern and well maintained equipment with mufflers where appropriate • Schedule noisy construction activities during normal working hours • Use noise barriers / screens or mounds to shield sensitive locations • Advise local residents and authorities of any unusual or unavoidable noise activities 	<ul style="list-style-type: none"> • Establish clear construction work policies to ensure that sensitive receptors such as schools, hospitals, religious establishment are least inconvenienced • Avoid noisy work from 6pm to 6am and during weekends and public holidays
Health & Safety <ul style="list-style-type: none"> • To ensure maximum safety of construction personnel and local residents 	<ul style="list-style-type: none"> • Ensure all occupational health and safety requirements are in place on construction sites and in work camps • Install lights and cautionary signs in hazardous areas • Establish footpaths and pull-off bays along roads through villages, near markets, schools and other community facilities 	<ul style="list-style-type: none"> • Applies to all construction sites

	<ul style="list-style-type: none"> • Limit construction activities from 0700 hr to 1900 hr to limit exposure to dust, noise etc. • Enhance safety and inspection procedures • Ensure use of Personal Protection Equipment (PPE) 	
<p>Health and Safety</p> <ul style="list-style-type: none"> • Awareness for construction workers: 	<ul style="list-style-type: none"> • Prepare a site safety plan specifying responsibilities and authorities within the Contractor's staff for: <ul style="list-style-type: none"> ➤ adherence to safety and health requirements, ➤ adherence to occupational health and safety requirements, ➤ use of personal protective equipment, ➤ lighting and warning signs at hazardous areas, ➤ setting rules for operation of vehicles and equipment by authorized personnel, ➤ setting procedures for safe handling of toxic and hazardous materials, ➤ arrangements for first aid and emergency procedures, ➤ posting notices about medical assistance and location of emergency equipment, ➤ setting schedules for regular checking of adherence to the plan and ➤ training staff to familiarize them with the plan, their obligations to implement it, and main areas of risk to workers and others • Provide for the management and control of traffic during the works, arrangement for safe delivery of construction materials and safe parking of vehicles and plant (both during and after working hours) 	<ul style="list-style-type: none"> • Applies to all construction sites

	<ul style="list-style-type: none"> • Education on basic hygiene practices to minimize spread of tropical diseases • Increase workers' HIV/AIDS and STD awareness, including information on methods of transmission and protection measures • Prohibit usage of drugs and alcohol on construction sites 	
Disruption of Utilities	<ul style="list-style-type: none"> • Maintain high standards of site supervision and vehicle and plant operation to reduce risks of damage to water, power and telecommunication lines • Prepare procedures for rapid notification to the responsible Authority • Provide assistance with re-instatement, in the event of any disruption 	<ul style="list-style-type: none"> • Applies to all construction sites
Site rehabilitation <ul style="list-style-type: none"> • To minimize ongoing impacts after construction is completed: 	<ul style="list-style-type: none"> • Excavate any contaminated soil from fuel depots / workshops, remove and reshape the area. • Rake or loosen all compacted ground surfaces • Ensure that waste and surplus materials are removed from site • Contour sites to conform to the surrounding landscape and natural drainage. • Apply topsoil and re vegetate the site using local flora 	<ul style="list-style-type: none"> • Applies to all disturbed areas and construction sites
Fair and equitable access to project benefits	<ul style="list-style-type: none"> • Public posting of the list of direct beneficiaries in a language understandable to local people • Effective GRM to allow local people to voice grievances. • Close project monitoring 	<ul style="list-style-type: none"> • Social safeguard specialist hired by the project implementation agency will closely monitor implementation
Operation Phase		

<p>Safety & Maintenance Practices</p> <ul style="list-style-type: none"> • To enhance safety and maintenance practices 	<ul style="list-style-type: none"> • Implement traffic calming procedures at selected places such as schools, markets, etc. • Promote use of off-road stops • Enhance improvements in road signage and pavement markings. • Analyse road accident black spots and implement remedies • Conduct regular monitoring and inventory of risks for erosion and drainage problems • Conduct routine maintenance like grading, grass cutting, drain clearing, pothole patching, and shoulder repairs, etc. 	<ul style="list-style-type: none"> • Applies to the entire road
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Annex 4: Screening Form for Potential Environmental & Social Safeguards Issues

This form is to be used by the Implementing Agency for to screen potential environmental and social safeguards issues of a sub project, determine Bank policies triggered and the instrument to be prepared for the sub project.

Subproject Name	
Subproject Location	
Subproject Proponent	
Subproject Type/Sector	
Estimated Investment	
Start/Completion Date	

Questions	Answer		If Yes WB Policy triggered	Action/ Documents requirement if Yes
	yes	no		
Are the subproject impacts likely to have significant adverse environmental impacts that are sensitive ¹⁹ , diverse or unprecedented? ²⁰ Please provide brief description:			<i>OP 4.01 Environmental Assessment Category A</i>	Subproject not eligible ²¹
Do the impacts affect an area broader than the sites or facilities subject to physical works and are the significant adverse environmental impacts irreversible? Please provide brief description:			<i>OP 4.01 Environmental Assessment Category A</i>	Subproject not eligible
Is the proposed project likely to have minimal or no adverse environmental impacts? ²² Please provide brief justification:			<i>OP 4.01 Environmental Assessment Category C</i>	ECOP might be needed

¹⁹ Sensitive (i.e., a potential impact is considered sensitive if it may be irreversible - e.g., lead to loss of a major natural habitat, or raise issues covered by OP 4.04, Natural Habitats; OP 4.36, Forests; OP 4.10, Indigenous Peoples; OP 4.11, Physical Cultural Resources; or OP 4.12, Involuntary Resettlement; or in the case of OP 4.09, when a project includes the manufacture, use, or disposal of environmentally significant quantities of pest control products);

²⁰ Examples of projects where the impacts are likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented are large scale infrastructure such as construction of new roads, railways, power plants, major urban development, water treatment, waste water treatment plants and solid waste collection and disposal etc.

²¹ It is expected that the Project will support only Category B Projects. Category A projects will be excluded from Project financing giving due consideration to the safeguards capacity constraints of implementing agencies and the country as a whole and the related restrictions in timing (i.e. the need to respond to an emergency, whereas category A sub-projects would require a comprehensive ESIA which may take time to prepare and conduct consultations). Project objective is to support recovery in priority disaster-affected areas.

²² Examples of projects likely to have minimal or no adverse environmental impacts are supply of goods and services, technical assistance, simple repair of damaged structures etc.,

Will vulnerable social groups by way of way of age, disability, literacy, poverty or any other driver of vulnerability present in subproject areas? ²³			<i>OP 4.01 Environmental Assessment Category B</i>	Limited ESIA, ESMP
Is the project neither a Category A nor Category C as defined above? ²⁴ Please provide brief justification:			<i>OP 4.01 Environmental Assessment Category B</i>	Limited ESIA, ESMP or ECOP
Are the project impacts likely to have significant adverse social impacts that are sensitive, diverse or unprecedented? ²⁵ Please provide brief description:			<i>OP 4.01 Environmental Assessment Category A</i>	Subproject not eligible
Will the project adversely impact physical cultural resources? ²⁶ Please provide brief justification:			<i>OP 4.11 Physical Cultural Resources</i>	Addressed in ESIA (ESIA with PCR Management Plan and/or Chance Find Procedures)
Will the project involve the conversion or degradation of non-critical natural habitats? Please provide brief justification:			<i>OP 4.04 Natural Habitats</i>	Addressed in ESIA, ESMP or ECOP
Will the project involve the significant conversion or degradation of critical natural habitats? ²⁷			<i>OP 4.04 Natural Habitats</i>	Subproject not eligible

²³ This screening will be done by a qualified social specialist based on a literature review, direct observation, key informant interview with knowledgeable people including CSOs active in the areas, etc,

²⁴ Projects that do not fall either within OP 4.01 as a Category A or Category C can be considered as Category B. Examples of category B sub-projects include small scale *in-situ* reconstruction of infrastructure projects such as road rehabilitation and rural water supply and sanitation, small schools, rural health clinics etc.

²⁵ Generally, sub projects with significant resettlement-related impacts should be categorized as A. Application of judgment is necessary in assessing the potential significance of resettlement-related impacts, which vary in scope and scale from sub project to sub project. Sub-projects that would require physical relocation of residents or businesses, as well as sub projects that would cause any individuals to lose more than 10 percent of their productive land area, often are categorized as A. Scale may also be a factor, even when the significance of impacts is relatively minor. Sub projects affecting whole communities or relatively large numbers of persons (for example, more than 1,000 in total) may warrant categorization as A, especially for projects in which implementation capacity is likely to be weak. Sub projects that would require relocation of ethnic minorities, that would restrict their access to traditional lands or resources, or that would seek to impose changes to the traditional institutions of ethnic minorities, are always likely to be categorized as A.

²⁶ Examples of physical cultural resources are archaeological or historical sites, including historic urban areas, religious monuments, structures and/or cemeteries particularly sites recognized by the government.

²⁷ Sub-projects that significantly convert or degrade critical natural habitats such as legally protected, officially proposed for protection, identified by authoritative sources for their high conservation value, or recognized as protected by traditional local communities, are ineligible for Bank financing.

Does the sub-project involve involuntary land acquisition, loss of assets or access to assets, or loss of income sources or means of livelihood? Please provide brief justification:			<i>OP 4.12 Involuntary Resettlement</i>	Abbreviated Resettlement Action Plan (ARAP) if fewer than 200 people will be affected; Resettlement Action Plan (RAP) if 200 people or more will be affected
Are there any ethnic minority communities present in the sub project area and are likely to be affected by the proposed sub-project negatively or positively? Please provide brief justification:			<i>OP 4.10 Indigenous People</i>	Social Assessment, Ethnic Minority Development Plan/Ethnic Minority Plan
Will the project have the potential to have impacts on the health and quality of forests or the rights and welfare of people and their level of dependence upon or interaction with forests; or aims to bring about changes in the management, protection or utilization of natural forests or plantations? Please provide brief justification:			<i>OP4.36 Forestry</i>	Addressed in ESIA, ESMP, ECOP
Will the project have the potential to have significant impacts or significant conversion or degradation of critical natural forests or other natural habitats?			<i>OP4.36 Forestry</i>	Subproject not eligible
Is there any territorial dispute between two or more countries in the sub project and its ancillary aspects and related activities?			<i>OP7.60 Projects in Disputed Areas</i>	Governments concerned agree
Will the sub project and its ancillary aspects and related activities, including detailed design and engineering studies, involve the use or potential pollution of, or be located in international waterways ²⁸ ?			<i>OP7.50 Projects on International Waterways</i>	Notification (or exceptions)

Conclusion and Safeguards Instruments Required:

The sub project is classified as a Category _____ project as per World Bank OP4.01, and the following safeguards instruments will be prepared to comply with the World Bank Safeguard Policies and Myanmar EIA procedures:²⁹

²⁹ An ESIA will apply to sub-projects that involve more complex environmental and social analysis (e.g. rehabilitation and reconstruction works that include re-alignments or strategic widening, and expansion including opening and operation of quarries). An ESIA is undertaken for Category B projects/sub projects that will require additional project-specific data/information and further analysis to determine the full extent of environment and social impacts, which cannot be supplied by an Environment and Social Management Plan (ESMP) and/or an Environmental Code of Practice (ECOP).

1. _____
2. _____
3. _____
4. _____

The sub project will be implemented in areas where vulnerable social groups are (present/ are not present) who face risks of exclusion from benefiting from the subproject.

III. Key Safeguard Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts.
2. Describe the plan, schedule, and responsibilities for preparing the necessary safeguard instruments to comply with World Bank Safeguard Policies and Myanmar EIA procedures.
3. Identify the key stakeholders and describe the planned mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.
4. Describe if vulnerable social groups facing risks of exclusion from project benefits are present in subproject areas and if so, their level and sources of vulnerability

Annex 5: Resettlement Policy Framework

1. Background

This Resettlement Policy Framework (RPF) has been prepared for the Myanmar Flood and Landslides Emergency Recovery Project (Project). Since sub-projects are only identified during project implementation specific project impacts cannot be identified until then. The Resettlement Policy Framework (RPF) is prepared to ensure that any acquisition of land and the loss of income or private assets due to the implementation of sub-projects funded by the Project would be addressed in line with the World Bank's policy on involuntary resettlement, OP 4.12. The RPF describes principles, processes and procedures for assessing potential impacts and preparing required safeguard plans, such as a Resettlement Action Plan (RAP) in line with OP 4.12.

2. Project Description

The project development objective is to support the recovery in priority areas affected by the 2015 floods and landslides in Myanmar and, in the event of another eligible crisis or emergency, to provide immediate and effective response to said eligible crisis or emergency. The project consists of four components: (i) Resilient Rehabilitation of National Roads, (ii) Resilient Rehabilitation of Rural Roads and Livelihoods Support, (iii) Emergency Response, and (iv) Project Management and Knowledge Support.

Component 1: Resilient Rehabilitation of National Roads (US\$105million)

The objective of this component is to support the climate-resilient rehabilitation of damaged national road infrastructure. The target areas will benefit from improved connectivity and restored access to markets and social services, which will contribute to the economic growth. The restored roads and bridges will also serve as supply and rescue lines in the event of a disaster. This component will be implemented by the MOC on road segments predominantly in Chin and Rakhine, including the Kalay-Falam-Hakha Road and the Ngathainggyaung-Gwa Road.

- *Rehabilitation and maintenance:* The project will rehabilitate national roads and bridges. Traffic safety facilities will complement the activities. Routine maintenance of the rehabilitated roads will be conducted towards the end of the project.
- *Climate resilience:* The project will finance elevating flood prone road sections, drainage improvement, slope stabilization, landslide protection, and bio-engineering techniques.
- *Capacity building:* To build the capacity of MOC in supervision and quality control, the project will finance equipment for technical laboratories.
- *Design and supervision of civil works:* Technical assistance for design, supervision, and quality assurance for the investments will be supported.

Component 2: Resilient Rehabilitation of Rural Roads and Livelihoods Support (US\$70 million)

The objective of this component is to (i) rehabilitate rural roads that have been destroyed during the floods, and (ii) support livelihoods and create jobs through the use of labor-intensive works, where appropriate. The repairs will indirectly regenerate farmer's agricultural production and increase sustainable access to basic needs and services. The component will be implemented by DRD in Ayeyarwady, Bago, Magway, Sagaing and Yangon.

- *Rehabilitation and maintenance:* The rehabilitation of rural roads and bridges through labor-intensive methods will be supported. These works will be complemented with traffic safety measures and routine maintenance to ensure sustainability. The concept of CBDRM will be introduced as part of the maintenance strategy.
- *Climate resilience:* A build-back-better approach will be taken, with sound engineering designs, sufficient drainage, and greening approaches applied to enhance the resilience.
- *Capacity building:* To build the capacity of DRD in supervision and quality control, the project will finance equipment for technical laboratories, and select machinery to support sustainable road maintenance practice and emergency response.
- *Design and supervision of civil works:* Technical assistance will focus on surveys and road designs as well as quality control and supervision of the works.

Component 3: Emergency Response (US\$15 million)

108. *Subcomponent 3.1 Contribution to IDA IRM (US\$15 million)* will support a pass-through contribution to the IDA IRM response to the 2015 July-September floods and landslides. It will finance expenditures from an approved list of goods in line with the draft Contingent Emergency Response Implementation Plan (CERIP), which is being developed for the IDA IRM activation, and the IDA IRM Operations Manual, developed by the GoM and approved by the World Bank. This sub-component will support the recovery of the agriculture, fisheries and livestock sectors through essential goods for farm households from disaster-affected Regions and States, including storage and construction materials, vehicles, medicine, small industrial machinery, seeds, animal feed, and fuel products. It will not finance any works or incremental operating costs. This component will be overseen by the Ministry of Planning and Finance (MOPAF) and MOALI.

109. *Subcomponent 3.2 Contingent Emergency Response (US\$0)* will allow for a reallocation of credit proceeds from other components to provide emergency recovery and reconstruction support following any future eligible crisis or emergency including the support activation of IDA IRM for a future event, or channel additional funds in response to an emergency. It would finance public and private sector expenditures on a positive list of goods and/or specific works, goods, services and operating costs required for given emergency recovery. A CERIP developed for the specific eligible disaster will apply to this sub-component, detailing financial management, procurement, safeguard and any other necessary implementation arrangements.

Component 4: Project Management and Knowledge Support (US\$10 million)

- *Project management:* This would include operational capacity-building, coordination, implementation expertise, preparation and monitoring of safeguards instruments, operating costs, monitoring, evaluation and reporting, and office equipment.
- *Knowledge Support:* Studies on strengthening disaster and climate resilience and improving road maintenance; and technical capacity-building for Government staff at national and local levels and for local contractors will be included. A Strategic Maintenance Framework for Roads and Bridges will be prepared to help MOC and DRD strengthen the maintenance operations under the country's limited resources. Technical assistance will be provided to help MOC and DRD to review and improve the current Design Standards for Road and Bridge under the climate change context. Innovative approaches such as application of information and communication technology (ICT) or use of geographic information system (GIS) data will be explored.

3. Scope of Potential Project Impact

The Project is expected to have generally positive social benefits. It is expected that most sub-projects will not involve land acquisition or other impacts covered by OP 4.12 given their small scale and limited footprint. However, some sub-projects may require land acquisition or impacts assets such as standing crops and tress. It is not possible to estimate the potential number of people affected or the extent of impacts at this point. This RPF has been prepared as part of the ESMF for the Project to provide guidance regarding situations where land use and/or land acquisition is required for the implementation of sub-projects.

4. Objective of the Resettlement Policy Framework

This RPF aims to achieve the following objectives:

- (a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- (b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- (c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

The policy covers direct economic and social impacts that both result from Bank-assisted investment projects and are caused by the involuntary taking of land resulting in: (i) relocation or loss of shelter; (ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location. It applies to all subproject activities that result in involuntary resettlement, regardless of the source of financing.

5. Legal and Regulatory Framework

The legal framework concerning land acquisition in Myanmar is evolving. Myanmar does not have a unitary land law but has several laws for different categories of land. All land belongs to the state under the current legal system, and land users receive certificates from the Settlement Land Records Department. Several key pieces of legislation have been introduced over the last several years, in particular the Farmland Act (2012) and the Vacant, Fallow and Virgin Lands Management Law (2012). However neither of these accommodate practices such as shifting cultivation or collective and traditional forms of ownership and usage.

2008 Constitution

Per the Constitution of the Republic of the Union of Myanmar, 2008, in principle, all land in Myanmar is owned by the nation as articulated below:

“The Union is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere in the Union” (Section 37, Sub-section (a), Chapter 1 Basic Principle of the Union, State Constitution 2008)

In this context Myanmar individuals and organizations do not have proprietary rights to land but only land use/occupancy rights, which in some situations allow for inheritance and transfer of such rights.

Farmland Act, 2012

This law determines land use rights for farmland and granting of land use rights to eligible farmers. It allows the right to sell, mortgage, lease, exchange and gift whole or a part of the right to use the farmland. The law determines the formation as well as roles/responsibilities of farmland administrative bodies at various levels. The Farmland rules determine procedures such as the application for farmland registration and obtaining land use certificates; application of transfer of farmlands for other purposes; and indemnities and compensation.

Vacant, Fallow and Virgin Lands Management Law, 2012

This law determines the conditions and frameworks for usage of vacant, fallow and virgin lands. According to the law, vacant, fallow and virgin lands can be claimed and utilized by willing individuals/organizations including foreigners mainly for production activities such as agriculture, livestock, aquaculture, mining and others permitted by the government. The law determines the formation as well as the roles/responsibilities of the central committee for the management of vacant, fallow and virgin lands.

6. The World Bank Involuntary Resettlement Policy (OP 4.12):

This policy aims to achieve the following objectives:

- (d) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.

- (e) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- (f) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher

The policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by (i) involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) lost of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

The policy applies to all components of the project that result in involuntary resettlement, regardless of the source of financing, and to other activities resulting in involuntary resettlement, that in the judgment of the Bank, are (a) directly and significantly related to the Bank-assisted project, (b) necessary to achieve its objectives as set forth in the project documents; and (c) carried out, or planned to be carried out, contemporaneously with the project.

If the policy is triggered, the borrower prepares a resettlement plan or a resettlement policy framework that covers the following: (a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are (i) informed about their options and rights pertaining to resettlement; (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and (iii) provided prompt and effective compensation at full replacement cost¹¹ for losses of assets attributable directly to the project.

7. Institutional Arrangement

Responsibility for implementation of this RPF and for preparation and implementation of RAPs/ abbreviated RAPs for specific activities and sub-projects (including responsibility for meeting all associated costs) rests with the MOC and DRD. As necessary, MOC and MOALI will exercise their authority to coordinate actions with any other agencies involved to ensure timely and effective implementation.

Safeguards preparation and implementation will be carried out by each CIU, under the MOC for Component 1 and DRD for Component 2. Each CIU will have a designated safeguard team with adequate staff and capacity to carry out the duties described under this ESMF. Because the evaluation of the expected environmental and social impacts requires specialized technical skills, these implementation agencies will employ qualified environmental and social specialists as well as consultants to assist them in this task. Additionally, it is envisaged that local government staff will be supported by an international safeguards advisor on a semiannually basis, which will guide

the Component safeguard teams in the screening, scoping, contracting, supervising, and monitoring safeguard implementation.

More detailed description of the implementation arrangement is provided in the Section XIV of the ESMF.

8. Project Principles for Involuntary Resettlement

Project activities comply with the relevant World Bank Group Safeguard Policies, as well as National Regulation. As Myanmar legislative framework is expected to continue developing throughout the life of the Project, appropriate gap analysis will be carried out to fill the possible gaps between National Regulation and World Bank Group Safeguard Policies.

- (a) All efforts will be made to avoid, or minimize if unavoidable, *acquisition of land and other private assets*. Detailed designs will be adjusted to the degree feasible to avoid such impacts. If land acquisition is unavoidable, a Resettlement Action Plan (RAP) will be developed following measures provided in this RPF. (If the project activity or sub-project affects less than 200 persons, an Abbreviated RAP is to be prepared).
- (b) Physical relocation of households is not allowed as sub-projects funded by the Project have relatively small footprints and in many cases alternative sites or designs can be found.
- (c) All persons displaced economically and/ or physically are entitled to compensation at replacement value for land and lost assets, or to alternative but equivalent forms of assistance in lieu of compensation. Valuations must be undertaken in accordance with international valuation standards.
- (d) A lack of legal title to land of customary users acquired by the project will not bar displaced persons from entitlement to such compensation or alternative forms of assistance needed to resettle and sustainably restore incomes.
- (e) Squatters or those living on or using land without title or recognized customary arrangements at the time of the RAP census survey are entitled to compensation for any structures or improvements made and may be provided with assistance to shift elsewhere.
- (f) Compensation rates as established in a specific RAP refer to amounts to be paid in full to the eligible owner or user of the lost asset, without depreciation or deductions for any purpose.
- (g) When cultivated land is acquired, the borrower should seek to arrange land-for-land replacement if that is the preference of the displaced person.
- (h) Compensation for land, standing crops and lost assets must be paid prior to the time of impact.
- (i) Land to be used temporarily must be acquired in consultation with landowners or land users. Full market compensation will be paid for any standing crops. Tree crops or perennial plantations should be avoided to the extent possible. An allowance should be paid to land users for inconvenience and a negotiated rental fee should be paid to titled landowners. Leasing of land from landowners or the use of unused, unoccupied government land is the preferred method. All land used temporarily will be restored to its previous condition.

- (j) Displaced persons should be consulted during the process of RAP preparation, so that their preferences regarding land acquisition and compensation arrangements are solicited and considered.
- (k) The draft and final RAPs are publicly disclosed in a manner accessible and understandable to displaced persons.
- (l) The previous level of community services and access to resources will be maintained or improved after land acquisition.
- (m) The borrower is responsible for meeting costs associated with land acquisition and compensation. The RAP includes a budget for all costs associated with land acquisition, including contingency arrangements.
- (n) Methods by which displaced persons can pursue grievances will be established and information regarding these grievance procedures will be provided to displaced persons. Grievances are cost-free and easily accessible to project-affected people.

9. Voluntary Donation Protocol

Voluntary land donation will be allowed. Community members who benefit from a sub-project may donate land or other private assets to the sub-project voluntarily and without compensation. Voluntary donation is an act of informed consent and affected people must not be forced to donate land through coercion or under duress, or be misled to believe they are obliged to do so.

District PMOs will oversee and ensure that the voluntary land donations (VLD) process is followed and appropriately implemented. Union PMOs will be responsible for monitoring the processes used by District PMOs.

The process of VLD will include the following protocols:

Step 1: Determining and Documenting the Appropriateness of VLD for the Subproject

In considering the relevance of VLD for the specific subproject, the District PMO will document:

- What the land will be used for;
- How much land the project will require on both a permanent and temporary basis;
- How much of the land will be donated;
- What alternatives to donation exist (e.g., right of use, right of way);
- The terms of the donation;
- The identities of the parties who intend to donate;
- The beneficiary of the donation; and
- Any other details that are relevant to why donation of land may be appropriate.

Step 2: Official Notification to Landowners regarding the Option for VLD

If it is determined that VLD could be relevant for a subproject, the District PMO will provide:

- In urban areas: the Township General Administration Department (GAD), Ward Administrator and landowners with official written notification of the proposed construction of electricity infrastructure within their area and the associated opportunity for voluntary donation of land.
- In rural areas: the Township GAD, Village Tract Administrator, Village Head, and landowners with official written notification of the proposed construction of electricity infrastructure within their area and the associated opportunity for voluntary donation of land.

Step 4: Briefing to Interested Landowners of the Process of VLD

In urban areas, if a landowner indicates to the Ward Administrator that he or she is interested in VLD, the District PMO should brief the landowner/villager in the presence of the Ward Administrator about the process of VLD and explain the VLD form that would be required to be completed and signed by the landowner/villager and his/her spouse, as relevant.

Similarly, in rural areas, if the landowner indicates to the Village Head or Village Tract Administrator that he or she is interested in VLD, the District PMO should brief the landowner/village in the presence of the Village Tract Administrator and Village Head about the process of VLD and explain the VLD form that would be required to be completed and signed by the landowner/villager and his/her spouse, as relevant.

Prior to briefing the interested landowner, the Ward Administrator and/or Village Head or Village Tract Administrator should confirm to the District PMO; that:

- The interested landholder/villager would not lose more than five per cent of his/her total productive assets.
- The total land holding of the affected person is 200m² or more.
- No physical relocation of the interested landowner/villager and/or his/her family would be necessary.

Step 4: Due Diligence Verification Process to Confirm Land Ownership and Use

If the Interested Landowner and his/her spouse confirm that they would like to proceed with VLD, the next step is to verify the ownership and use of the land proposed to be donated. This verification process would include consultation with the local Settlement and Land Records Department (SLRD) and General Administration Department (GAD). The verification process should review available information and documentation regarding:

- The owner or owners of the land;
- The users of the land, or any parties that occupy the land (either physically or through ownership of an asset or conduct of livelihood or business activities on the land);
- Any competing claims of ownership or use;
- Structures and assets on the land;
- Trees or crops on the land;
- Any encumbrances on the land.

It is important to: (i) identify the right that is being transferred (an ownership right, a use right, a right of way, etc.); and (ii) check whether the transferee actually has the right s/he claims to have. In many circumstances where careful due diligence has not been carried out, significant conflict has arisen at a later stage when another party claims that they have the same or a competing right. In some circumstances – but not all – the transferee will have documentary evidence of such right. Where no such evidence exists, the due diligence can establish rights by speaking with local community officials and neighbors.

Step 5: Public Consultations and Disclosure

The decision to voluntarily donate land must be taken on the basis of a full understanding of the specific subproject and the consequences of agreeing to donate land. Accordingly, the parties that will be affected by the donation (the owners and users of the land, and the neighbors to the land as appropriate) must be provided with accurate and accessible information regarding what the land will be used for, for how long, and the impact the donation may have on them and their families. Prior written notification indicating the location and amount of land that is sought must be provided and its intended use must be disclosed.

Where the intention is to deprive the parties affected by the donation of the land permanently, or for a significant length of time, this must be made clear. It should be noted that in many communities the concept of alienation of land is uncommon and difficult to understand, and care needs to be taken to ensure that the implications of this are fully understood. It is also important to decide who else, within direct and extended families, should be consulted about the proposed donation of land in advance of it taking place; for example, older children.

Further to this, there should be a clear agreement as to which party/ies will pay the costs associated with the donated land. This could include measurement costs, documentation and notarial fees, transfer taxes, registration fees. It should also include the costs of re-measuring/re-titling the transferee's remaining land and any new documentation relating to it.

Step 6: Establishing Informed Consent

District PMOs in coordination with the village administration would verify the informed consent or power of choice by landholders who had selected to donate land. In particular, the following would be verified and documented in the voluntary land donation form:

- What the land is going to be used for, by whom and for how long;
- That the landowner donating the land would be deprived of the ownership or right to use the land, and what this really means;
- That the landowner has a right to refuse to donate the land;
- Whether there are alternatives to using the land;
- The process that would need to be followed to donate the land (e.g., execute documents, get spousal consents, pay taxes);
- The effect of the donation on the land donor's family, and what they can do if they (or their family or heirs) decide they want the land back.

The right to refuse must be a legitimate right, unconditional, and the potential transferee must be capable of exercising it in the local community and political context. For this reason, it is important to be sure that the decision to donate is undertaken without coercion, manipulation, or any form of pressure on the part of public or traditional authorities. For collective or communal land, donation must be based upon the informed consent of all individuals using or occupying the land.

Step 7: Preparation of Clear and Appropriate Documentation

While it is important to have evidence of an intention and agreement to donate land, it is equally important to ensure, where required and appropriate, that the land is legally transferred. While the process relating to the legal transfer of the land is frequently complicated and time consuming, it must be addressed. In specific circumstances, for example where the land is being transferred to the community, it may not be necessary to legally transfer the land. However, experience indicates that lack of formal transfer can create significant uncertainty in the future, which impacts on the sustainability of the infrastructure and services, and can have a negative effect on community relations.

The District PMO should:

- (a) Identify the appropriate documentation, including the agreement to make the land transfer and any legal documentation that may be required;
- (b) Ensure that the agreement:
 - Refers to the consultation has taken place;
 - Sets out the terms of the transfer;
 - Confirms that the decision to transfer was freely made, and was not subject to coercion, manipulation, or any form of pressure;
 - Attaches an accurate map of the land being transferred (boundaries, coordinates);
 - Sets out who will bear the costs of the transfer (e.g., notarial fees, taxes, title issues) and documents the residual land rights;
- (c) Ensure that all necessary parties sign the documents, including obtaining consent from spouses and children of legal age;
- (d) Ensure that the transfer and title is registered or recorded; and
- (e) Ensure that the land remaining after the donated land is excised is properly titled, registered or recorded.

It is also important to maintain a record of the process that has been followed. Such documents could include the following:

- The notification indicating the location and amount of land that was sought and its intended use for the project, with a record of when and where this was made public;
- Records of the consultations that were held and what was discussed;
- A copy of the due diligence that was conducted;
- Copies of each of the formal statements of donation, establishing informed consent as described above, and signed by each owner or user involved;
- Copies of all documents, registrations or records evidencing the legal transfer of the land;
- A map, showing each parcel of land.

Both the District and Union PMOs should maintain a record with documentation for each parcel of land donated. Such documentation must be available for World Bank review, and for review in relation to any grievances that may arise.

Step 8: Grievance redress arrangements

The project specifies the means by which donors (and, potentially, persons whose use or occupancy was not recognized in the transfer of land) may raise grievances, and measures to ensure consideration of, and timely response to, grievances raised. The grievance process includes participation of reviewers not directly affiliated with the District PMOs. The grievance process imposes no cost upon those raising grievances, and participation in the grievance process does not preclude pursuit of legal remedies under the laws of the country.

10. Implementation arrangement, eligibility criteria and development of the resettlement instrument

At the beginning of the implementation of respective project activities, social impact screening will be conducted to identify if direct economic and social impacts may occur as a result of implementing respective activities. Screening will be conducted to all project activities regardless of the source of financing and including Technical Assistance activities. It will also be conducted to other activities that may result in involuntary resettlement, that in the judgment of the Bank, are:

- (a) directly and significantly related to the Bank-assisted project,
- (b) necessary to achieve its objectives as set forth in the project documents; and
- (c) carried out, or planned to be carried out, contemporaneously with the project.

If the screening finds impacts described above may occur, the respective implementation agencies will carry out a census to develop the detailed list of affected people, and assess the scale and scope of impact that may occur to each affected household in a participatory manner. Efforts will be made to adjust designs of investments to minimize loss of assets and future income streams based on the result of the impact assessment.

Based on the result of census and social impact assessment, the implementation agency will develop a Resettlement Action Plan (RAP) which will provide measures to help affected people at least restore the pre-project level of livelihood. If fewer than 200 people will be affected, an abbreviated RAP will be developed. The following groups of people will be covered by the RAP or the abbreviated RAP:

- (a) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);
- (b) those who do not have formal legal rights to land at the time of census but have a claim to such land or assets--provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan
- (c) those who have no recognizable legal right or claim to the land they are occupying.

Detailed processes and procedures for the preparation of an abbreviated RAP and a full RAP, including consultation and disclosure requirements and table of contents, will be included in the project operations manual, but the a RAP will include the following, at minimum:

- (a) The description of the project objective and activities
- (b) Potential impacts, and mechanisms to minimize negative impact
- (c) Characteristics of affected people including vulnerable people among them and issues related to land tenure
- (d) Legal and institutional framework
- (e) Eligibility criteria
- (f) Valuation and compensation for losses at replacement cost
- (g) Programs for improvement or restoration of livelihoods and standards of living
- (h) Institutional arrangement
- (i) Consultation and participation arrangements
- (j) Implementation schedule
- (k) Grievance procedures, and monitoring and evaluation
- (l) Cost and budget

An abbreviated RAP may include the following, at minimum:

- (a) a census survey of displaced persons and valuation of assets;
- (b) description of compensation and other resettlement assistance to be provided;
- (c) consultations with displaced people about acceptable alternatives;
- (d) institutional responsibility for implementation and procedures for grievance redress;
- (e) arrangements for monitoring and implementation; and
- (f) a timetable and budget.

11. Entitlement Matrix

The following generic Entitlement Matrix provides the principles that will be used during implementation. The Entitlement Matrix may be developed in more detail during project implementation in agreement between the World Bank and GoM.

Table 1. Entitlement Matrix

Type of Losses	Entitled Persons	Entitlements	Implementation Issues
Loss of land	Legal owners or occupants identified during census	Cash compensation at replacement cost which is equivalent to the current market value of land within the village, of similar type, category and productive capacity, free from transaction costs (taxes, administration fees)	
	Affected persons who have no recognizable legal right or claim to the land they are occupying	Rehabilitation assistance to achieve the policy objective to improve or restore their livelihoods and standards of living in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is	

		higher. Assistance may involve access to electricity, training, opportunities for employment during construction, and technical support to improve livelihoods	
Loss of productive trees, structures and other private trees	Owners of affected structures, regardless of tenure status	Cash compensation at replacement cost Salvage materials will be handed over to affected people	If remaining parts of the structures are not sufficient for use, compensation will be paid for the entire affected buildings Transportation of salvage materials will be assisted by the project
Temporary land use occupation	Legal owners or occupants identified during census	Cash compensation for loss of income or assets on a net basis Reinstitute land to the original state after the completion of civil works	Responsible CIUs will monitor implementation

12. Valuation Methods

Under this RPF, valuation of land and assets will be done prior to preparing subproject RAPs. Valuation methods may vary depending on the local context and the scope and impact of the subproject, but would normally include an independent land price survey in the project area based on current land use and market value of land to help the affected households be able to afford a replacement land equivalent in terms of quantity and quality. The market value of an asset is the estimated cost at which the asset is purchased and sold on the market between a willing buyer and a willing seller in an independent activity and in a normal exchange condition. The survey will use comparison and construction cost methods:

1. Comparison method: Land prices will be based on the prices of land plots, similar to the affected land, have been successfully purchased/sold in the market in the recent transactions. This method will estimate the actual value of the land to be acquired by the subproject.
2. Construction cost method: This method is based on the estimated average cost per square meter to build different kinds of houses in recent months in consultation with the Township General Administration Department (GAD).
3. The experts who conduct the replacement cost survey may use the following tasks:
 - i. Present the methodology for replacement cost survey;
 - ii. Conduct survey of construction materials and interviews with contractors and builders in the affected districts and communes to determine the current costs of materials and labor;
 - iii. Interview local officials and residents to find the current market price of land in the project area based on the recent transaction documents; or if there is no market, based on actual observations, such as productivity and location attributes, and the availability of replacement land.
 - iv. Conduct in-depth interviews and discussions with the parties involved in setting the unit prices as stipulated by law, compensation for affected land, houses and other

structures, all kinds of crops and annual plants to have a better understanding of the methods used in determining the unit prices to be issued.

13. Definitions

“Displaced persons” refers to all the people who, on account of project activities, would have their (i) standard of living adversely affected; or (ii) right, title, interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable asset acquired or possessed temporarily or permanently; (iii) access to productive assets adversely affected, temporarily or permanently; or (iv) business, occupation, work or place of residence or habitat adversely affected. The term incorporates all potential categories of persons affected by land acquisition and associated impacts; all of those adversely affected are considered “displaced” under this definition regardless of whether any relocation is necessary.

"Replacement cost" is defined as follows:

- (a) For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.
- (b) For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes.
- (c) For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labour and contractors' fees, plus the cost of any registration and transfer taxes.
- (d) In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures so as to meet the replacement cost standard. Such additional assistance is distinct from resettlement measures to be provided under other clauses in OP 4.12, para. 6.

14. Monitoring and Grievance Procedures

The Project will incorporate a strong system of monitoring and evaluation (M&E) to:

- (a) ensure effective and timely implementation according to plan and apply mid-course corrections where needed;
- (b) measure the achievement of results envisaged in its objectives and learn lessons for future operations; and
- (c) ensure implementation of the ESMF, with EMPF, to meet the requirements of the Bank's safeguard policies.

The CIUs will be responsible to monitoring the implementation of EMPs for sub-projects. Efforts will be made to build capacity at local CIU level to undertake such monitoring. The TA/consultant teams will assist the CIUs in subproject monitoring and local NGOs and CSOs will also be used to support the preparation, implementation and monitoring of sub-projects. Qualitative monitoring and beneficiary assessments will be included in the M&E, focusing primarily upon societal dynamics and ethnic groups, women, and the most vulnerable, using focus group discussions, key informant interviews and other participatory methods.

More detailed description of monitoring and evaluation mechanisms are provided in the Section XV of the main body of the ESMF.

A Grievance Redress Mechanism (GRM) will be developed before effectiveness by the PMUs including adequate resources, clear roles and responsibilities, procedures and guidelines. The objective of the GRM is to receive and address communities request and/or complaints relating to project implementation. Where possible, the GRM will build on existing local institutions at the Village Committees/Township levels – special emphasis will be given to the existing GRM created under the National Community Driven Development Project in Myanmar. A communication plan will be developed to facilitate community’s understanding of the GRM functions and enable access to it. Channels will be developed to allow for community monitoring and evaluation of the construction process through means such as public hearings or ICT enabled citizen feedback platforms.

Regular monitoring of the effectiveness of the GRM will be included in the monitoring and evaluation (M&E) approach for the Project. In undertaking the regular M&E activities, the following questions will be raised:

- (j) Does the project have clear, formal, and transparent internal mechanisms and rules for addressing grievances?
- (k) Do project officials responsible for grievance redress have the authority to take or demand remedial action?
- (l) Are officials responsible for grievance redress obliged to take action on all grievances?
- (m) Do project-affected people feel that they can lodge grievances without fear of retaliation?
- (n) Are project beneficiaries aware of their right to file a grievance and of the grievance redress procedure in general?
- (o) Are there internal processes in place to record, track, and monitor the grievances and the action taken on them?
- (p) Does the GRM provide timely feedback (written or otherwise) to the petitioner on actions taken?
- (q) Is there an appeals process in place that GRM users can access if they are not satisfied with how their grievance has been resolved?

More detailed description of the GRM and monitoring mechanisms is provided in the section XV of the main body of the ESMF.

15. Capacity Building of Key Stakeholders

Project Safeguards implementation arrangements and capacity building will be further design during implementation and will build upon existing mechanisms and capacity.

For the MOC this Project will be the first World Bank supported project. MOC has experience and built capacity to implement Asian Development Bank funded projects and well as other development partners such as JICA and UNDP. MOC has previously created Project Management Units for ADB supported project and has built capacity for safeguards implementation.

The Department for Rural Development (DRD), under the Ministry of Agriculture, Livestock and Irrigation (MOALI), is the GoM department with the longest experience managing World Bank projects, since 2012. DRD is also currently implementing the biggest project in the World Bank Myanmar portfolio, the National Community Driven Development Project (USD480 million), as well as the National Electrification Project's off grid electrification component (US\$90million). DRD has experience creating, implementing and monitoring safeguard instruments for rural infrastructure rehabilitation.

During implementation, a more specific capacity building needs assessment and action plan will be developed. The Capacity Building action plan will likely include specific technical support, mentoring, workshops, and learning-by-doing activities.

An International Safeguards Specialist will be recruited competitively under the PIST to support the implementation of this RPF on a semiannual basis. It is expected that the International Safeguards Specialist will work with national counterparts both government and consultants to carry out the activities included in this RPF. The International Safeguard Specialist will also carry out a capacity assessment and design a Capacity Building Plan for the CIUs. The Capacity Building Plan will likely include formal training programs mentoring, specific technical support, learning-by-doing training, and other activities to ensure know how transfer specially on World Bank procedures and guidelines included in this RPF.

16. Budget

The implementation of this RPF is integrated into the overall Project budget. The costs of supporting the implementation of the RPF - such as capacity building and preparation of RAPs- are included in the ESMF budget.

17. Consultations and Disclosure Arrangements

This draft RPF will be consulted to broad stakeholders before appraisal, and the inputs received will be used to finalize the RPF.

Affected people should be consulted about the contents of the draft RAP/ abbreviated RAP and their inputs should be incorporated in the final RAP. The final RAP should be prepared in the relevant local language/s if affected people are ethnic minorities. RAP.

The RAP must describe measures taken to consult with displaced persons regarding proposed land acquisition and other arrangements, and summarize the results of those consultations. The MOC and DRD, in relation to their respective Project component, also ensures public disclosure of the RAP, in draft and final stages, to the displaced persons and the general public in the project area, in a language and location accessible and understandable to them. Disclosure of the draft RAP should occur at least one month prior to Bank review and approval. Disclosure of the final RAP occurs following Bank approval.

All consultations to be conducted under the project should be conducted in a local language and sufficient lead time (minimum 2 weeks) should be given to ensure that all affected people and stakeholders are able to participate in consultations and be fully informed of the project as well as the project safeguard approach.

Generic Land Acquisition Checklist

Screen/Check for	Yes/No	Requirements
Will the implementation of project-financed activities require temporary or permanent land acquisition or result in loss of private assets (e.g. trees, fences, standing crops, etc) that are owned or used by private individuals?		If yes, apply OP 4.12 as described in this RPF. Assess type and scope of impacts to determine appropriate preparation process and mitigation measures
Has there been a history of land confiscation by Government (or others) in the area?		If yes, a due diligence assessment should be undertaken to assess, in consultations held with affected communities and households, previous impacts and unresolved claims. The due diligence should recommend measures to address such impacts and unresolved claims and seek the support of affected communities and households for the proposed subproject. The due diligence report is submitted for World Bank review before subproject approval.
Has it been clearly explained to affected people that they are entitled to compensation at replacement cost?		If no, ensure efforts are made to inform and consult with affected communities; disclose RPF in a manner and language understandable to local communities
Have alternative technical solutions or design adjustments been explored to avoid or minimise impacts?		If no, assess if alternatives are available to avoid or minimise impacts
Has land been acquired before Bank intervention?		If yes, undertake a due diligence assessment and report to assess if land acquisition has followed national requirements and is consistent with the objectives of OP 4.12. Prepare an action plan to address gaps identified in the due diligence process
Are there any conflicts over land and/or titling of land?		If yes, undertake process to resolve issues before financing

Form for Voluntary Land Donation

Region/State:	
District:	
Township:	

Village tract:	
Village:	
Sub-project ID:	

Name of land owner:	NRC Number:	Beneficiary of the sub-project: Y/N		
Sex:	Age:	Occupation:		
Address:				
Description of land that will be taken by the sub-project:	Area affected:	Total landholding area:	Ratio of land affected to total land held:	Map code, if available:
Description of annual crops currently growing on the land to be donated. <i>This information is required in order to understand the project impact on trees and standing crops that is required to be compensated. No physical relocation is allowed on a voluntary basis.</i>				
	Details	Number		
– Trees that will be destroyed				
– Fruit trees				
– Trees used for other economic or household purposes				
– Mature forest trees				
– Other				
Describe any other assets that will be lost or must be moved to implement the project:				
Value of donated assets:				

By signing or providing a thumb-print on this form, the land user or owner agrees to contribute assets to the project. The contribution is voluntary. If the land user or owner does not want to contribute his/her assets to the project, he or she should refuse to sign or provide thumb print, and ask for compensation instead.

Date:

Date:

District CIU Representative's signature

Affected persons' signature
(both husband and wife)

Annex 6: Ethnic Minority Policy Framework (EMPF)

1. Introduction

This Resettlement Policy Framework (RPF) has been prepared for the Myanmar Flood and Landslides Emergency Recovery Project (Project). Since sub-projects are only identified during project implementation specific project impacts cannot be identified until then. The Ethnic Minority Planning Framework (EMPF) is prepared to ensure that (i) ethnic screening would be conducted; (ii) that, if ethnic minorities are found to be present in or have collective attachment to project areas, free, prior and informed consultations will be conducted leading to the broad community support to the project, and (iii) that Social Assessment (SA) would be conducted and Ethnic Minority Plan (EMP) will be developed to identify, assess, minimize and mitigate negative impact that may fall on local ethnic groups. The EMPF describes principles, processes and procedures for assessing potential impacts and preparing EMP, if necessary, in line with the OP 4.10.

This EMPF aims to provide the implementing agencies—the Ministry of Construction (MOC) and Ministry of Agriculture, Livestock and Irrigation (MOALI), through the Department of Rural Development (DRD)—with the operational planning framework to avoid adverse social impacts and provide equitable and culturally appropriate project benefits to local ethnic minority communities and other vulnerable population groups. The EMPF has been developed to address the social safeguards aspects of the World Bank’s operational policy on indigenous peoples (or ethnic minorities in the context of Myanmar).

2. Project Objectives and Components

The project development objective is to support the recovery in priority areas affected by the 2015 floods and landslides in Myanmar and, in the event of another eligible crisis or emergency, to provide immediate and effective response to said eligible crisis or emergency. The project consists of four components: (i) Resilient Rehabilitation of National Roads, (ii) Resilient Rehabilitation of Rural Roads and Livelihoods Support, (iii) Emergency Response, and (iv) Project Management and Knowledge Support.

Component 1: Resilient Rehabilitation of National Roads (US\$105million)

The objective of this component is to support the climate-resilient rehabilitation of damaged national road infrastructure. The target areas will benefit from improved connectivity and restored access to markets and social services, which will contribute to the economic growth. The restored roads and bridges will also serve as supply and rescue lines in the event of a disaster. This component will be implemented by the MOC on road segments predominantly in Chin and Rakhine, including the Kalay-Falam-Hakha Road and the Ngathainggyaung-Gwa Road.

- *Rehabilitation and maintenance:* The project will rehabilitate national roads and bridges. Traffic safety facilities will complement the activities. Routine maintenance of the rehabilitated roads will be conducted towards the end of the project.

- *Climate resilience*: The project will finance elevating flood prone road sections, drainage improvement, slope stabilization, landslide protection, and bio-engineering techniques.
- *Capacity building*: To build the capacity of MOC in supervision and quality control, the project will finance equipment for technical laboratories.
- *Design and supervision of civil works*: Technical assistance for design, supervision, and quality assurance for the investments will be supported.

Component 2: Resilient Rehabilitation of Rural Roads and Livelihoods Support (US\$70 million)

The objective of this component is to (i) rehabilitate rural roads that have been destroyed during the floods, and (ii) support livelihoods and create jobs through the use of labor-intensive works, where appropriate. The repairs will indirectly regenerate farmer's agricultural production and increase sustainable access to basic needs and services. The component will be implemented by DRD in Ayeyarwady, Bago, Magway, Sagaing and Yangon.

- *Rehabilitation and maintenance*: The rehabilitation of rural roads and bridges through labor-intensive methods will be supported. These works will be complemented with traffic safety measures and routine maintenance to ensure sustainability. The concept of CBDRM will be introduced as part of the maintenance strategy.
- *Climate resilience*: A build-back-better approach will be taken, with sound engineering designs, sufficient drainage, and greening approaches applied to enhance the resilience.
- *Capacity building*: To build the capacity of DRD in supervision and quality control, the project will finance equipment for technical laboratories, and select machinery to support sustainable road maintenance practice and emergency response.
- *Design and supervision of civil works*: Technical assistance will focus on surveys and road designs as well as quality control and supervision of the works.

Component 3: Emergency Response (US\$15 million)

110. *Subcomponent 3.1 Contribution to IDA IRM (US\$15 million)* will support a pass-through contribution to the IDA IRM response to the 2015 July-September floods and landslides. It will finance expenditures from an approved list of goods in line with the draft Contingent Emergency Response Implementation Plan (CERIP), which is being developed for the IDA IRM activation, and the IDA IRM Operations Manual, developed by the GoM and approved by the World Bank. This sub-component will support the recovery of the agriculture, fisheries and livestock sectors through essential goods for farm households from disaster-affected Regions and States, including storage and construction materials, vehicles, medicine, small industrial machinery, seeds, animal feed, and fuel products. It will not finance any works or incremental operating costs. This component will be overseen by the Ministry of Planning and Finance (MOPAF) and MOALI.

111. *Subcomponent 3.2 Contingent Emergency Response (US\$0)* will allow for a reallocation of credit proceeds from other components to provide emergency recovery and reconstruction support following any future eligible crisis or emergency including the support activation of IDA IRM for a future event, or channel additional funds in response to an emergency. It would finance public and private sector expenditures on a positive list of goods and/or specific works, goods, services and operating costs required for given emergency recovery. A CERIP developed for the specific eligible disaster will apply to this sub-component, detailing financial management, procurement, safeguard and any other necessary implementation arrangements.

Component 4: Project Management and Knowledge Support (US\$10 million)

- *Project management:* This would include operational capacity-building, coordination, implementation expertise, preparation and monitoring of safeguards instruments, operating costs, monitoring, evaluation and reporting, and office equipment.
- *Knowledge Support:* Studies on strengthening disaster and climate resilience and improving road maintenance; and technical capacity-building for Government staff at national and local levels and for local contractors will be included. A Strategic Maintenance Framework for Roads and Bridges will be prepared to help MOC and DRD strengthen the maintenance operations under the country's limited resources. Technical assistance will be provided to help MOC and DRD to review and improve the current Design Standards for Road and Bridge under the climate change context. Innovative approaches such as application of information and communication technology (ICT) or use of geographic information system (GIS) data will be explored.

3. Legal and Regulatory Framework

Constitution of Myanmar

According to Chapter 1, clause 22 of the 2008 Constitution of Myanmar, the Union Government of Myanmar is committed to assisting in developing and improving the education, health, language, literature, arts, and culture of Myanmar's "national races." It is stated that the "Union shall assist:

- (a) to develop language, literature, fine arts and culture of the National races;
- (b) to promote solidarity, mutual amity and respect and mutual assistance among the National races;
- (c) to promote socio-economic development including education, health, economy, transport and communication, [and] so forth, of less developed National races."

The constitution provides equal rights to the various ethnic groups included in the national races and a number of laws and regulations aim to preserve their cultures and traditions. This includes the establishment of the University for the Development of the National Races of the Union which was promulgated in 1991 to, amongst other things, preserve and understand the culture, customs and traditions of the national races of the Union, and strengthen the Union spirit in the national

racess of the Union while residing in a friendly atmosphere and pursuing education at the University.³⁰

Key principles within the Constitution that relate to National Races Affairs include:

- (a) Section 15: For National races with suitable population, National races representatives are entitled to participate in legislature of Regions or States and Self-Administered Areas concerned.
- (b) Section 17 (c): For National races of which representatives are so permitted to participate in legislature of Regions, States or Self-Administered Areas in accordance with Section 15, such representatives are to be permitted to participate, mainly, to undertake their National races affairs.
- (c) Section 167 (a): The Region Hluttaw or the State Hluttaw may, if necessary, form Committees and Bodies with the Region or State Hluttaw representatives concerned to study and submit legislation in relation to national races affairs vested by the Constitution.
- (d) Section 262 (e): The Chief Minister of the Region or State shall submit the list of persons who are approved by the Region or State Hluttaw or Chairpersons of the Self-Administered Division or Self-Administered Zone and the list of persons who are representatives elected to undertake the affairs of National races to appoint as the Ministers of the Region or State to the President.
- (e) Section 262 (i): The President may, in co-ordination with the Chief Minister, appoint Ministers for the Self-Administered Division or the Self-Administered Zone or Ministers for National races affairs as Ministers concurrently in charge of other Ministries.

The Constitution makes no reference to ethnic minorities or indigenous peoples. It instead uses the term “national races”. This term is not defined by the Constitution however is generally interpreted by applying the 1982 Myanmar Citizenship Law³¹, which, in its 1983 Procedures, defines 135 national races.³²

Under the Citizenship Law, nationals of Myanmar include the “Kachin, Kayah, Karen, Chin, Bamar, Mon, Rakhine or Shan and ethnic groups as have settled in any of the territories included within the State as their permanent home from a period anterior to 1185 B.E., 1823 A.D.”³³

Endorsement and Ratification of Relevant International Instruments

In September 2007, Myanmar endorsed the United Nations Declaration on the Rights of Indigenous Peoples. Article 32 discusses indigenous peoples’ right to free and prior informed consent (FPIC). It says: “States shall consult and co-operate in good faith with the Indigenous Peoples concerned through their own representative institutions in order to obtain Free and Prior Informed Consent prior to approval of any project affecting their land or territories”. Article 10 discusses forcible relocation of indigenous people, and the need for FPIC. Article 26 about land rights is also relevant in relation to indigenous peoples.

³⁰ http://www.burmalibrary.org/docs15/1991-SLORC_Law1991-09-University_for_the_Development_of_the_National_Races_Law-en.pdf

³¹ Myanmar Centre for Responsible Business, 2014, Myanmar Oil and Gas Sector Wide Impact Assessment (SWIA)

³² Burma Library, “Burma Citizenship Law of 1982”.

³³ Article 3, Myanmar Citizenship Law.

Myanmar has not ratified International Labour Organisation (ILO) Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries.

National Races Protection Law – February 2015

A proposal to form a Union-level ethnic affairs ministry responsible for ethnic affairs was previously submitted in the Amyotha Hluttaw, but the proposal was rejected on the grounds that there were already many Union ministries and the ethnic affairs ministers could protect minority rights. In August 2013, the Pyithu Hluttaw instead proposed drafting a law for ethnic affairs. On 24 February 2015, the new law was passed by the *Pyidaungsu Hluttaw*³⁴. Its purpose is defined as:

- (a) In order for ethnic minority people to have equal citizen rights.
- (b) In order to live together forever with friendship based on the genuine union spirit.
- (c) In order to preserve and develop ethnic minorities' language, literature, art, culture, tradition, ethnic identity and historical heritage.
- (d) In order to develop unity, mutual respect and mutual help among national races.
- (e) In order to develop education, health, economy and transportation of ethnic minorities in less developed areas.
- (f) In order for national races to fully access constitutional rights.

It states that if national races do not break the prescribed laws concerning national security, rule of law, peace and development and code of conduct for the citizens,

- (a) They have the right to freely adopt their language, literature, art, culture, tradition and religion.
- (b) They have the right to teach and learn their own language and literature without affecting the National Education Policy.

The World Bank Indigenous Peoples (OP 4.10): The Policy aims to ensure that ethnic minorities (i) do not suffer adverse effects, and (ii) receive culturally compatible social and economic benefits from Bank-financed activities. For all projects that are proposed for Bank financing and affect Indigenous Peoples (or ethnic minorities in Myanmar context), the Bank requires the borrower to engage in a process of free, prior, and informed consultation. The Bank provides project financing only where free, prior, and informed consultation results in broad community support to the project by the affected ethnic minorities. Such Bank-financed projects include measures to (a) avoid potentially adverse effects on the ethnic minority communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Bank-financed projects are also designed to ensure that ethnic minorities receive social and economic benefits that are culturally appropriate and gender and inter-generationally inclusive.

Early in project preparation, the Bank undertakes a screening to determine whether ethnic minorities are present in, or have collective attachment to, the project area. If, based on the screening, the Bank concludes that ethnic minorities are present in, or have collective attachment to, the project area, the borrower undertakes a social assessment to evaluate the project's potential positive and adverse effects on the ethnic minorities, and to examine project alternatives where

³⁴ Union Legislative Assembly: a joint session of upper and lower houses of parliament

adverse effects may be significant. To carry out the social assessment, the borrower engages social scientists whose qualifications, experience, and terms of reference are acceptable to the Bank.

On the basis of the social assessment and in consultation with the affected ethnic minority communities, the borrower prepares an Ethnic Minority Plan (EMP) that sets out the measures through which the borrower will ensure that (a) ethnic minorities affected by the project receive culturally appropriate social and economic benefits; and (b) when potential adverse effects on ethnic minorities are identified, those adverse effects are avoided, minimized, mitigated, or compensated for.

Some projects involve the preparation and implementation of annual investment programs or multiple sub-projects. In such cases, and when the Bank's screening indicates that ethnic minorities are likely to be present in, or have collective attachment to, the project area, but their presence or collective attachment cannot be determined until the programs or sub-projects are identified, the borrower prepares an Ethnic Minority Planning Framework (EMPF). The EMPF provides for the screening and review of these programs or sub-projects in a manner consistent with this policy.

4. Institutional Arrangement

Responsibility for implementation of this EMPF and for preparation and implementation of EMPs for specific activities and sub-projects (including responsibility for meeting all associated costs) rests with the MOC and DRD. As necessary, MOC and MOALI will exercise their authority to coordinate actions with any other agencies involved to ensure timely and effective implementation.

Safeguards preparation and implementation will be carried out by each CIU, under the MoC for Component 1 and DRD for Component 2. Each CIU will have a designated safeguard team with adequate staff and capacity to carry out the duties described under this ESMF. Because the evaluation of the expected environmental and social impacts requires specialized technical skills, these implementation agencies will employ qualified environmental and social specialists as well as consultants to assist them in this task. Additionally, it is envisaged that local government staff will be supported by an international safeguards advisor on a semiannually basis, which will guide the Component safeguard teams in the screening, scoping, contracting, supervising, and monitoring safeguard implementation.

More detailed description of the implementation arrangement is provided in the Section XIV of the ESMF.

5. Eligibility Criteria

For purposes of this EMPF, ethnic minorities refer to the distinct, vulnerable, social and cultural groups that possess the following characteristics in varying degrees:

- a) Self-identification as members of a distinct ethnic, religious, or cultural groups;
- b) Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;

- c) Customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- d) An indigenous language, often different from the official language of the country.

6. Ethnic Minorities and Other Vulnerable and Under-Served Population Groups

6.1. Ethnic Minorities

The Government recognizes 135 separate ethnic groups referred to within the Constitution as “national races”. Major groups include Burman/Bamar, Shan, Karen/Kayin, Kachin, Chin, Rakhine, Mon and Kayah. The largest ethnic group is the Bamar (Burmese) people comprising about two-thirds of the population and who reside predominantly in the central and delta (seven) regions. Other ethnic minorities account for about one third of the population and live mainly within the seven states (although not exclusively). The official population estimates of the main ethnic minority groups are roughly: Shan (9 per cent), Kayin/Karen (7 per cent), Rakhine (4.5 per cent), Chin (2 per cent), Mon (2 per cent), Kachin (1.4 per cent), and Kayah (1 per cent).³⁵ Myanmar’s ethnic minorities make up an estimated 30 – 40 per cent of the population, and ethnic states occupy around 57 per cent of the total land area along most of the country’s international borders.³⁶

Political boundaries in Myanmar are to some extent organised according to ethnic demographics. Seven States are named after seven large ethnic minority groups – namely, Kachin, Kayah, Kayin, Chin, Mon, Rakhine, and Shan States. The Bamar are the dominant ethnic group, especially in the seven Regions (Sagaing, Magwe, Tanintharyi, Mandalay, Yangon, Ayeyarwady, and Bago).

Aside from the 14 States and Regions, there are five self-administered zones: Naga (Sagaing Region); Danu (Shan State); Pa-O (Shan State); Pa Laung (Shan State); and Kokang (Shan State). There is also one self-administered division: Wa (Shan State). These six self-administered sub-national units are recognised in the 2008 Constitution (section 56) and are the result of earlier ceasefire agreements. Each self-administered unit is run by a Leading Body, which has at least 10 members and includes State or Region *Hluttaw* members and other members nominated by the Commander-in-Chief.³⁷

Myanmar’s ethnic diversity creates variations in traditional norms and power structures, ranging from a system of small principalities in Shan and Kayah States to the tribal systems of the Kachin. However, in addition to this, Bamar dominance over other ethnic minorities has been the source of considerable ethnic tension and has fuelled intermittent protests and separatist rebellions including armed conflict, which has affected traditional structures. Armed ethnic groups have established systems of administration separate either to the Government system or to traditional systems. All the main ethnic minority group areas have experienced various levels of conflict since

³⁵Republic of the Union of Myanmar, Directorate of Water Resources and Improvement of River Systems, *Myanmar Ayeyarwady Integrated River Basin Management Project Final Environmental and Social Management Framework*.

³⁶<http://www.tni.org/sites/www.tni.org/files/download/accesdenied-briefing11.pdf>, accessed 09 March 2015

³⁷ Adam Smith International in partnership with Myanmar Development Resources Institute (MDRI), 2015, Institutional and Regulatory Assessment of the Extractive Industries in Myanmar p. 60

1962. There has been progress in peace talks between the Government and ethnic armed groups through leadership meetings, starting in late 2013, but a National Ceasefire Accord (NCA) has not yet been realised.³⁸ Nonetheless, the country is undergoing a process of profound transformation, including but not limited to the peace process, which has significant implications for local governance structures at township and village level.

Although a large majority of the population practices Buddhism, other religions are also present; mainly Christianity, Islam, Hinduism. Some estimates list the proportion of Buddhists at 90 per cent; other sources estimate 80 per cent. Other major religions, as estimated by the Pew Research Center, are: 7.8 per cent Christians, 5.8 per cent folk religions, 4 per cent Muslims, and 1.8 per cent Hindus.³⁹

6.2. Internally Displaced and Post Disaster Groups

Due to military and civil conflicts there are internally displaced populations in some areas of the country, for example in Kachin, Rakhine and Shan states. There are also many post-disaster groups in the Delta region. Given their displacement it is possible that they may not be identified in population statistics and they often lack access to basic infrastructure, including electricity. Many of them are poor and vulnerable, face language and cultural barriers, and have limited access to social services and livelihood opportunities. They may not be identified in local population statistics and therefore may be missed out when the project identifies potential project beneficiaries.

The UNHCR estimated in June 2015 that there were 368,500 IDPs residing in Myanmar, and 1,090,000 stateless persons.⁴⁰ This includes people displaced in Kachin State, northern Shan State, and Rakhine State. In January 2014, it was estimated that the number of displaced persons in Rakhine State had reached 140,000.⁴¹ In Kachin State and northern Shan State, more than 100,000 IDPs are displaced.⁴²

Post-disaster communities are prevalent in the Delta region and along the western coastline of Myanmar, which is particularly vulnerable to natural disasters. For example, Cyclone Nargis in 2008 which affected 2.4 million people and caused over 138,000 deaths.

Table 1: The Population of Myanmar by Sex and State/Region

³⁸<http://documents.worldbank.org/curated/en/2014/11/23025474/myanmar-systematic-country-diagnostic-ending-poverty-boosting-shared-prosperity-time-transition>, accessed 04 March 2015

³⁹Ministry of Health, Republic of the Union of Myanmar. 2014, *Myanmar Essential Health Services Access Project Ethnic Minority Planning Framework*,

⁴⁰<http://www.unhcr.org/pages/49e4877d6.html#>, accessed 2 March 2016

⁴¹http://www.worldbank.org/content/dam/Worldbank/document/EAP/Myanmar/WBG_SCD_Full_Report_English.pdf, accessed 04 March 2015

⁴²<http://www.unhcr.org/pages/49e4877d6.html#>

State/Region	Total	Male	Female
<i>Union</i>	<i>51,419,420</i>	<i>24,821,176</i>	<i>26,598,244</i>
Union (enumerated)	50,213,067	24,225,304	25,987,763
Union (not enumerated)	1,206,353	595,872	610,481
<i>Kachin</i>	<i>1,689,654</i>	<i>877,664</i>	<i>811,990</i>
Kachin (enumerated)	1,643,054	854,633	788,421
Kachin (not enumerated)	46,600	23,031	23,569
Kayah	286,738	143,461	143,277
<i>Kayin</i>	<i>1,572,657</i>	<i>775,375</i>	<i>797,282</i>
Kayin (enumerated)	1,502,904	739,234	763,670
Kayin (not enumerated)	69,753	36,141	33,612
Chin	478,690	230,005	248,685
Sagaing	5,320,299	2,518,155	2,802,144
Tanintharyi	1,406,434	700,403	706,031
Bago	4,863,455	2,324,214	2,539,241
Magway	3,912,711	1,814,993	2,097,718
Mandalay	6,145,588	2,919,725	3,225,863
Mon	2,050,282	986,454	1,063,828
<i>Rakhine</i>	<i>3,188,963</i>	<i>1,529,606</i>	<i>1,659,357</i>
Rakhine (enumerated)	2,098,963	992,906	1,106,057
Rakhine (not enumerated)	1,090,000	536,700	553,300
Yangon	7,355,075	3,517,486	3,837,589
Shan	5,815,384	2,908,259	2,907,125
Ayeyawady	6,175,123	3,010,195	3,164,928
Nay Pyi Taw	1,158,367	565,181	593,186

Source: Ministry of Immigration and Population, Department of Population, Republic of the Union of Myanmar. The Population and Housing Census of Myanmar, 2014, Summary of the Provisional Results p.4

Note: the numbers in blue provide estimates of people who were not enumerated in the census. The numbers in italics provide figures on the enumerated and estimated population.

6.3. Women

The PDNA highlights impacts on women's lives across different areas, including health, nutrition, livelihoods assets loss, financial burden, as well as increase of sexual violence. The PDNA found that overall women are more negatively impacted than men. The loss of food stocks and livestock, inundation of farmland and subsequent loss of agricultural labor, and the inability to look for alternative livelihoods due to the high burden of care work means that they are under considerable burden to provide food and nutrition for their families, whilst they have far fewer resources and options for alternative livelihoods when compared with men.

7. Potential Issues and Impacts Relating to Ethnic Minorities and Other Vulnerable Groups

Overall, the Project is expected to provide positive benefit to ethnic minorities and vulnerable people including women by reconstructing road connectivity and basic access, and creating job opportunities for them. Construction and operations activities associated with the Project may present possible risks in areas with ethnic minorities. The temporary employment generation program under the Component 2 may be implemented in ways that will not provide equal benefit

to ethnic minorities, women and other vulnerable groups. Contracts should include good practices for working with local communities.

8. Implementation Arrangements for the EMPF

The project's positive impacts will depend upon the degree to which it is successful in ensuring the inclusion of vulnerable groups including ethnic minorities and women. This requires a participatory approach process and ways to address barriers of economic and geographical character as well as language and cultural barriers. A key principle of the EMPF is to build on, and improve existing mechanisms, including processes for local planning and engagement with communities and Village Committees.

Ethnic Screening

Screening is undertaken by the CIUs, with support from the TA/consultant teams as needed, to determine the presence of ethnic minorities in the subproject's area of influence (see ESMF for more details, including the screening form provided in Annex 1 of the ESMF). If their presence is confirmed, OP 4.10 is triggered to the subproject and the following steps will be undertaken (see also OP 4.10). Based on OP 4.10's definition of indigenous peoples / ethnic minorities, the policy is triggered to the officially recognized ethnic minorities, or *ethnic races* (except the Bamar). The Bank will provide guidance to the CIUs during the screening process and will review the screening outcomes during its implementation support.

If a subproject's area of influence is in an area with ethnic minorities OP 4.10 is triggered and the procedures described in this EMPF will be followed. This includes the Social Assessment of potential social issues, impacts and risks; free, prior and informed consultations; and the preparation of an EMP in consultation with the ethnic minorities affected.

Social Assessment (SA)

Social Assessment (SA) is a process which provides an integrated and participatory framework for prioritizing, gathering, analyzing, and using operationally relevant social information. The scope and elements of the SA should be proportional to the type and level of benefits, impacts and risks of the particular subproject.⁴³

Because the concerns and preferences of ethnic minorities are context-specific, no uniform or standardized approach can be recommended. The elements, methodology, substance and depth of the SA should be proportional to the nature and scale of the proposed subproject's design, the circumstances of the ethnic minorities and the existing data and knowledge relevant to the country and sector context. Issues commonly included in SA are:

- (a) Identification of key stakeholders and institutional arrangements relevant to the subproject and the communities benefiting or affected.

⁴³For more guidance on conducting a social analysis see the World Bank's website: www.worldbank.org/socialanalysis. Key documents include the World Bank's Social Analysis Sourcebook from 2003; A User's Guide to Poverty and Social Impact Analysis from 2003; and the Participation and Social Assessment: Tools and Techniques from 1998.

- (b) Gathering of baseline information on the demographic, social, cultural and political characteristics of the affected ethnic minority communities, and when relevant the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend.
- (c) Forms of social infrastructure and services available to ethnic minorities, and analysis of the main factors affecting such access, or lack thereof.
- (d) Assessment, based on free, prior, and informed consultation with the affected ethnic minorities, of the potential adverse and positive effects of the subproject.
- (e) Assessment, based on free, prior, and informed consultation with the affected ethnic minorities, of the potential subproject design features and, if necessary, mitigation measures to ensure that the subproject provides culturally appropriate benefits and avoids or provides appropriate mitigation measures for subproject impacts.
- (f) Identification and assessment of a culturally appropriate process for consultation and participation during preparation and implementation of the subproject financed activity/sub-project, including methodologies, technologies, principles, capacity building, empowerment, technical assistance and other support features necessary for a successful consultation and participation process.

Free, Prior and Informed Consultations

The OP 4.10 requires a process of free, prior and informed consultation leading to broad community support from ethnic minorities benefiting from, or affected by, the Bank-financed sub-projects. The objective is to facilitate the design of development interventions that are: culturally appropriate from the perspective of ethnic minority communities; developed through a transparent and participatory approach; and obtain broad support from affected communities.

The scope of the consultations required depends on the level of subproject impacts and the *methodology* depends on the type of communities affected by the subproject (e.g. their vulnerability, language and ongoing interactions with the dominant society or neighboring communities).

The consultation process should:

- (a) be free from coercion, intimidation and pressure from the implementing agency or other stakeholders;
- (b) integrate customary norms of decision making in the community;
- (c) provide reasonable and understandable information about the subproject, its potential benefits, adverse impacts and risks, to all community members;
- (d) participatory and facilitate the participation of ethnic minorities in assessing subproject benefits, opportunities, impacts and risks;
- (e) use methods that are inclusive of vulnerable groups in the community, culturally appropriate, and that are adapted to communities' language and needs;
- (f) allow sufficient time for information to be interpreted and discussed internally within the affected communities and for comments and recommendations to be formulated by the communities;

- (g) provide sufficient time for consultations and thereby allow the implementing agency to understand the views, concerns, interests and priorities of the ethnic minority communities;
- (h) facilitate the communities' influence on the subproject design and measures based on fair and open discussions and good faith negotiations; and
- (i) document and disclose the consultation process (who, when, where, what); including the process and methodology, issues raised, how they have been addressed and the agreements reached. Documentation of the process is an important factor in demonstrating that broad community support has been obtained.

Arrangements for consultations should be carefully considered and tailored to the subproject context, the anticipated impacts and the context of the local communities. Consultations may include:

- (a) community meetings, both with the community as a whole and with sub-groups;
- (b) focus group discussions and participatory planning exercises;
- (c) distribution of project information in both full format (project documents, assessment reports etc.), simplified formats such as posters and brochures, and audio-visual material using local languages;
- (d) identification of contact persons within the communities (some training may be appropriate to enhance their ability to engage meaningfully in the consultation process);
- (e) involvement of ethnic minority organizations where they exist and have the trust of the local communities; and
- (f) involvement of local NGOs, research institutes, university students (where these are accepted by, and have the trust of, the local communities).

Consultations should be conducted in the relevant ethnic language(s) when needed and sufficient lead time (minimum two weeks) should be given to ensure that all affected ethnic minority communities are able to participate in consultations fully informed of the subproject and preparation of an EMP.

Preparation of an Ethnic Minority Plan

Based on the findings of the SA and free, prior and informed consultations, the responsible CIU or designated implementing partner will prepare an Ethnic Minority Plan (EMP) for the specific subproject affecting ethnic minorities. The EMP should be prepared in a flexible and pragmatic manner, and its level of detail will vary depending on the specific subproject and the nature of impacts to be addressed.

Where required, an EMP should include the following elements, as needed (proportional to the scope, benefits, impacts and risks of the subproject):

- a) Project description and summary description of issues relating to ethnic minorities.
- b) A summary of the legal and institutional framework applicable to ethnic minorities.
- c) A summary of the SA including baseline information on the demographic, social, cultural, and political characteristics of the affected ethnic minorities, the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend.

- d) A summary of the results of the free, prior, and informed consultation with the affected ethnic minorities that led to broad community support for the subproject.
- e) A framework to ensure free, prior, and informed consultation with the affected ethnic minorities during the implementation of subproject activities.
- f) Measures to ensure that the affected ethnic minorities receive social and economic benefits that are culturally appropriate;
- g) Measures to avoid, minimize, mitigate, or compensate for adverse effects.
- h) The cost estimates and financing plan for the EMP.
- i) Grievance redress mechanisms accessible to the affected ethnic minorities.
- j) Monitoring, evaluating and reporting on the implementation of the EMP.

The draft EMP prepared in consultation with the affected ethnic minorities will be publicly disclosed and shared with local communities in a manner and language appropriate and understandable to the community members. The EMP should be prepared in English or Myanmar language, and translated into relevant ethnic minority languages if deemed necessary and constructive in providing subproject and EMP information to the ethnic minorities.⁴⁴ If the EMP is prepared in Myanmar language, it should be translated into English for Bank review, unless otherwise agreed with the Bank.

9. Institutional Arrangements

The two implementing agencies through their respective CIUs will be responsible for the environmental and social performance of the Project and its sub-projects. The CIUs will be adequately staffed for this purpose with environmental and social safeguards officers. Once each subproject has been identified, the responsible CIU will clarify tasks and responsibilities regarding implementation of the specific subproject. The CIUs will be responsible for creating a screening report and draft TOR for ESMP or ESIA and to prepare an Ethnic Minority Plan (EMP) as needed. The CIUs will be responsible for disclosing subproject safeguard instruments and for consulting with local communities and other relevant stakeholders. Safeguard consultants will be hired as needed to assist the two CIUs to implement the ESMF (refer ESMF for further details).

10. Capacity Building of Key Stakeholders

Project Safeguards implementation arrangements and capacity building will be further design during implementation and will build upon existing mechanisms and capacity.

For the MOC this Project will be the first World Bank supported project. MOC has experience and built capacity to implement Asian Development Bank funded projects and well as other development partners such as JICA and UNDP. MOC has previously created Project Management Units for ADB supported project and has built capacity for safeguards implementation.

The Department for Rural Development (DRD) is the GoM department with the longest experience managing World Bank projects, since 2012. DRD is also currently implementing the biggest

⁴⁴ It is expected that relevant documents, or summaries, will be translated into the main ethnic minority languages with a written language and a population group able to read in the local language; for instance Shan, Palaung, Hakha, and Chin languages.

project in the World Bank Myanmar portfolio, the National Community Driven Development Project (USD480 million), as well as the National Electrification Project's off grid electrification component (US\$90million). DRD has experience creating, implementing and monitoring safeguard instruments for rural infrastructure rehabilitation.

During implementation, a more specific capacity building needs assessment and action plan will be developed. The Capacity Building action plan will likely include specific technical support, mentoring, workshops, and learning-by-doing activities.

An International Safeguards Specialist will be recruited competitively under the IST to support the implementation of this EMPF on a semiannual basis. It is expected that the International Safeguards Specialist will work with national counterparts both government and consultants to carry out the activities included in this EMPF. The International Safeguard Specialist will also carry out a capacity assessment and design a Capacity Building Plan for the CIUs. The Capacity Building Plan will likely include formal training programs mentoring, specific technical support, learning-by-doing training, and other activities to ensure know how transfer specially on World Bank procedures and guidelines included in this EMPF

11. Monitoring and Grievance Procedure

The Project will incorporate a strong system of monitoring and evaluation (M&E) to:

- (d) ensure effective and timely implementation according to plan and apply mid-course corrections where needed;
- (e) measure the achievement of results envisaged in its objectives and learn lessons for future operations; and
- (f) ensure implementation of the ESMF, with EMPF, to meet the requirements of the Bank's safeguard policies.

The CIUs will be responsible to monitoring the implementation of EMPs for sub-projects. Efforts will be made to build capacity at local CIU level to undertake such monitoring. The TA/consultant teams will assist the CIUs in subproject monitoring and local NGOs and CSOs will also be used to support the preparation, implementation and monitoring of sub-projects. Qualitative monitoring and beneficiary assessments will be included in the M&E, focusing primarily upon societal dynamics and ethnic groups, women, and the most vulnerable, using focus group discussions, key informant interviews and other participatory methods.

More detailed description of monitoring and evaluation mechanisms are provided in the Section XV of the main body of the ESMF.

A Grievance Redress Mechanism (GRM) will be developed before effectiveness by the PMUs including adequate resources, clear roles and responsibilities, procedures and guidelines. The objective of the GRM is to receive and address communities request and/or complaints relating to project implementation. Where possible, the GRM will build on existing local institutions at the Village Committees/Township levels – special emphasis will be given to the existing GRM created under the National Community Driven Development Project in Myanmar. A communication plan will be developed to facilitate community's understanding of the GRM functions and enable access

to it. Channels will be developed to allow for community monitoring and evaluation of the construction process through means such as public hearings or ICT enabled citizen feedback platforms.

Regular monitoring of the effectiveness of the GRM will be included in the monitoring and evaluation (M&E) approach for the Project. In undertaking the regular M&E activities, the following questions will be raised:

- (r) Does the project have clear, formal, and transparent internal mechanisms and rules for addressing grievances?
- (s) Do project officials responsible for grievance redress have the authority to take or demand remedial action?
- (t) Are officials responsible for grievance redress obliged to take action on all grievances?
- (u) Do project-affected people feel that they can lodge grievances without fear of retaliation?
- (v) Are project beneficiaries aware of their right to file a grievance and of the grievance redress procedure in general?
- (w) Are there internal processes in place to record, track, and monitor the grievances and the action taken on them?
- (x) Does the GRM provide timely feedback (written or otherwise) to the petitioner on actions taken?
- (y) Is there an appeals process in place that GRM users can access if they are not satisfied with how their grievance has been resolved?

More detailed description of the GRM and monitoring mechanisms is provided in the section XV of the main body of the ESMF.

12. Budget

The implementation of this EMPF is integrated into the overall Project budget. The costs of supporting the implementation of the EMPF - such as capacity building and preparation of EMPs- are included in the ESMF budget.

13. Consultations and Disclosure Arrangements

The Project will follow World Bank Group Safeguard Policies for participation, consultation, and disclosure concerning safeguard aspects of the Project as described in this ESMF. The Project aims at achieving meaningful consultation that is a two way process in which beneficiaries provide advice and input on the design or the proposed subproject that affect their lives and environment. Meaningful consultation shall promote dialogue between government, communities, NGOs and implementing agencies to discuss relevant aspects of the Project and its sub-projects. Consultation is an ongoing process and will be carried out both during subproject preparation and implementation.

The final documents will reflect any comments and/or suggestions provided during the public consultations. The EMPF has been revised to reflect the outcome of the consultations, which for instance suggested more emphasis on the cooperation with NGOs and CSOs and the participatory

planning methods of the Project. The final IPF will be publicly disclosed in Myanmar and English language versions on the MOALI and MOC websites, and in English language in the Bank's InfoShop in compliance with the World Bank's Public Consultation and Disclosure Policy. For project implementation, the CIUs will prepare project information and briefing material that explains the objectives and requirements of the ESMF and EMPF in a manner understandable to local communities. It will be translated into key ethnic minority languages with a proportional population group that can read in those languages.

Annex 7: Environmental Code of Practice: Rural Roads

Roads connecting villages, between villages and township⁴⁵

General Considerations:

(a) Control placement of all construction waste (including earth cuts) to approved disposal sites (at >300 m from rivers, streams, lakes, or wetlands). Dispose in authorized areas all of garbage, metals, and excess materials (fuels, oil, grease) generated during construction. Never dispose spent oils on the ground and in water courses as it can contaminate soil and groundwater.

Sub-project Type Environmental Prevention/Mitigation Measures

- (b) Erosion control measures should be applied before the rainy season begins, preferably immediately following construction. Maintain, and reapply the measures until vegetation is successfully established.
- (c) Sediment control structures should be applied where needed to slow or redirect runoff and trap sediment until vegetation is established.
- (d) Spray water on dirt roads, cuts, fill materials and stockpiled soil to reduce wind-induced erosion, as needed.
- (e) Avoid road construction through primary forests as it gives access to illegal logging.
- (f) Avoid road construction in unstable soils, steep slopes and nearby river banks. Additional measures (see the section below) need to be applied should there be no alternatives for road alignments.

Protect slopes from erosion and landslides by the following measures:

- (a) Plant locally available, fast-growing grass on slopes prone to erosion. These grasses help stabilize the slope and protect soil from erosion by rain and runoff. Locally available species possessing the properties of good growth, dense ground cover and deep root shall be used for stabilization.
- (b) Provide interceptor ditch, particularly effective in the areas of high intensity rainfall and where slopes are exposed. This type of ditch intercepts and carries surface run-off away from erodible areas and slopes before reaching the steeper slopes, thus reducing the potential surface erosion.
- (c) For steep slopes, a stepped embankment (terracing) is needed for greater stability.
- (d) Place a retaining wall at the lower part of the unstable slope. The wall needs to have weeping holes for drainage of the road sub-base, thus reducing pressure on the wall.
- (e) Rocks (riprap) can be used in addition to protect the slope.
- (f) Prevent uncontrolled water discharge from the road surface by sufficiently large drainage ditches and to drain water away from the down slope.

Culverts

- (a) Remove all formwork from inside the culvert (after concrete has reached full strength). Formwork that is not removed will rot eventually, drop down and obstruct the free flow of water.
- (b) Place large stones at the outlet of the culvert to prevent erosion.

⁴⁵ Additional Resources can be found at [Myanmar National Community Driven Development](#) and [Philippine Rural Development Program](#)

- (c) Keep the culvert inlets free from sand and gravel – the water must flow through the culvert.
- (d) Build a sand trap upstream of the culvert to prevent accumulation at culvert inlets (sand traps will have to be cleaned periodically).
- (e) Ensure that the water of the adjacent road sections can flow freely into the roadside ditch.

Annex 8: Environmental Code of Practice: Quarry Development and Operations

Objective

The objective of this Environmental Code of Practice is to prescribe the safety requirements for the development and operation of quarries as well as to define procedures and works that shall be used to mitigate against adverse environmental effects.

Planning and Design

Quarry Sites

During the planning of a development project which will involve earthwork, potential quarry sites shall be identified. The potential sites shall be discussed during public consultations in regard to the project.

Land Acquisition

The purchase or lease of land for quarry development shall be undertaken in terms of the procedures defined in the Project ESMF.

The consultant shall define potential quarry sites that may be used for the construction of the project. Such potential sites shall be identified on plans drawn to an appropriate scale and the plans shall be displayed and discussed during public consultations.

Site Plans

Site Plans for quarry development shall be included in drawings issued for tender and the specification shall define the requirements of the contract in relation to quarry development and operation. The following design directives shall apply:

It is desirable that no quarry boundary is located within 500 metres of a public area or town or village nor within 300 metres of any isolated dwelling. The designer shall provide site plans of potential quarry sites in the tender documents. Such plans shall show existing level contours, access road, natural watercourses and other relevant topographical features.

The area defined for quarry operation shall be based on the volume of aggregate to be quarried and hence the extent of quarry operation. It shall also provide the area necessary for stockpiling stripped overburden, the establishment of a crusher and screening plant, the stockpiling of crushed aggregate and the installation of stormwater cut off drains, silt retention ponds and staff amenities.

In the construction specification the designer shall draw the contractor's attention to the need for consideration of the visual environment in the development of the quarry management plan, and to adopt progressive restoration work as quarry development proceeds.

Construction

Quarry Management Plan

Prior to commencing any physical works on site, a quarry management plan shall be prepared and approved. The quarry management plan shall have due regard for the following:

- All operations shall comply with Myanmar laws.
- Show the extent of overburden stripping and the stockpiling of same for later site restoration.
- Show the details and location of surface water drainage from the quarry site and the silt retention pond that will be constructed to settle silt and soil contaminated water prior to its discharge to a natural water course.
- Show details of catch drains installed to intercept overland flow of surface water to prevent its discharge into the quarry area.
- State safety precautions to be implemented.
- Show facilities such as guardhouse, amenities block and other facilities to be constructed.
- Show location of aggregate stockpiles.
- List plant and equipment to be used in the development and operation of the quarry.

The following specification is proposed:

On no account shall physical works be commenced for development of the quarry until an agreed Quarry Management Plan has been submitted to the engineer and the relevant Component Management Unit. Thereafter all quarry operation shall be the entire responsibility of the contractor and shall be carried out in terms of the agreed management plan.

Visual Impacts

The visual impact of quarry development on the environment shall be taken into account when preparing the Quarry Management Plan. So far as is possible the quarry shall be screened from view by the use of existing topography and trees.

The following specification is proposed:

In preparing the Quarry Management Plan the contractor shall so far as is possible minimise the visual impact of quarry development. Existing topography and vegetation shall be used to screen quarry operations as indicated in the typical details shown in the drawings.

During development and operation of the quarry the contractor shall progressively reinstate areas of the quarry as they are worked out utilising overburden and topsoil previously stripped from the quarry area to landscape and reinstate appropriate vegetation.

Safety Provisions

The following provisions shall be made in the operation of any quarry for the safety of all employees or persons on site:

- A daily register is to be maintained identifying all personnel who are engaged in or about the quarry.

- All persons engaged in the operation of the quarry shall be trained and have sufficient knowledge of and experience in the type of operation in which they are engaged.
- All persons engaged in the operation of the quarry shall be adequately supervised.
- Approved lighting shall be provided in inside working places where natural lighting is inadequate to provide safe working conditions.
- All personnel engaged in quarry operations shall wear a protective helmet of approved type at all times when on the quarry site.
- All personnel shall wear protective footwear while engaged in quarry operations.
- All employees engaged in operations on a quarry face at a height greater than 1.5 metres above the level of the quarry floor or bench floor shall be attached at all times to a properly secured safety rope by means of a safety belt.
- All persons whose duty it is to attend to moving machinery in or about any quarry shall wear close fitting and close fastened garments. Their hair shall be cut short or securely fixed and confined close to their head.
- All boilers, compressors, engines, gears, crushing and screening equipment and all moving parts of machinery shall be kept in a safe condition. Every flywheel and exposed moving parts of machinery shall be fitted with safety screens or safety fenced as appropriate.
- All elevated platforms, walkways and ladders shall be provided with adequate hand or safety rails or cages.
- Machinery shall not be cleaned manually while it is in motion nor oiled or greased while in motion.

Should any of the above safety measures be ignored or inoperative at any time then the engineer shall direct that quarry operations cease until all safety measures are provided and are in operating order.

Provision of First Aid

At every quarry there shall be provided the following first aid equipment:

A suitably constructed stretcher with a warm, dry blanket.

A first-aid box equipped to a standard acceptable to the Ministry of Health.

The quarry manager shall at least once every working week personally inspect the first-aid equipment to ensure that it complies with the requirements of this specification. Any supplies used from the first-aid box shall be replaced forthwith.

A person trained in first aid to the injured shall be available at the quarry during all operational periods of whatever nature.

Health Provisions

At every quarry a sufficient number of toilets and urinals shall be provided for the use of employees and shall be properly maintained and kept in a clean condition.

At every quarry a supply of potable water, sufficient for the needs of the persons employed, shall be provided. If persons are employed in places remote from the source of water supply, suitable clean containers of potable water shall be provided for their use.

Suitable facilities for washing shall be provided and maintained in a clean and tidy condition to the satisfaction of the employer, and those facilities shall be conveniently accessible for the use of persons employed in or about the quarry.

Quarry Manager

A manager who is experienced in all aspects of quarry operation and in particular safety procedures shall control every quarry. The manager shall be personally responsible for ensuring that all safety facilities are available and that safety procedures are followed.

A suggested specification is as follows:

- The contractor shall nominate an experienced quarry manager in the submission of the tender for the works. The quarry manager shall have a recognised current “A” grade quarry manager’s surface certificate and a recognised current quarry shot firer’s certificate.
- In the submission of the quarry manager’s credentials with the tender documents, the contractor shall ensure that the credentials include certified true copies of the following documents:
- Grade quarry manager’s surface certificate
 - Quarry shot firer’s certificate
- References from previous clients or employers demonstrating experience in:
 - The design and layout of quarries including the layout of benches, faces, access roads, drainage and crushing plant.
 - The methods of working quarry faces with particular reference to face stability and the safety of persons employed in or about the quarry
 - The safety of the public at large
 - The provision for and application of first aid.

The quarry manager’s duties shall include:

(a) The manager, or an approved person appointed by the manager in writing, shall daily, within two hours immediately before the commencement of the first working shift of the day in any part of the quarry, inspect every working place and travelling road, and all adjacent places from which danger might arise, and shall forthwith make a true report of the inspection in a record book kept for the purpose at the quarry. The record book shall be accessible to the engineer and the persons employed in or about the quarry.

(b) The manager, or an approved person appointed by the manager in writing, shall at least once in every 24 hours examine the state of the safety appliances or gear connected with quarrying operations in the quarry, and shall record the examination in the record book.

(c) The manager shall once in each week carefully examine the buildings, machinery, faces, benches, and all working places used in the quarrying operations, and shall forthwith after every

such examination record in writing in the record book his opinion as to their condition and safety and as to any alterations or repairs required to ensure greater safety of the persons employed in the working of the quarry. The manager shall then ensure that any such alterations or repairs are carried out.

Vegetation

Vegetation shall be stripped from the proposed quarry development area. Before stripping any vegetation a survey shall be undertaken to determine the presence of any rare plant species. All necessary steps shall be taken to save plants classified as important. Care shall be taken to avoid damage to any vegetation outside the defined quarry area. On no account shall burning of vegetation be permitted.

A suggested specification is:

Before stripping any vegetation a survey shall be undertaken to determine the presence of any rare plant species. All necessary steps shall be taken to save plants classified as important.

Prior to commencing vegetation clearance of the quarry site the contractor shall define the perimeter boundary of the proposed work as shown in the agreed quarry management plan. Vegetation shall then be stripped from the proposed quarry development area. Care shall be taken to avoid damage to any vegetation outside the defined quarry perimeter.

Stripped vegetation shall be mulched and stockpiled for use in the later restoration of the site.

Logs and large branches shall be stockpiled for use in the construction of erosion protection works for batters in quarry overburden.

Overburden stripped from any proposed quarry area shall be stockpiled clear of the quarry operation to be used for site restoration at the completion of operations. Stockpiles shall be shaped and smoothed to minimise ingress of rainwater.

Surface water run off from stockpiles shall be intercepted by perimeter drains which shall be discharged to silt retention ponds.

Batters in overburden excavation shall be sloped to ensure they are safe and stable against failure.

The maximum height of any batter in overburden shall be 3 metres. Any higher batter in overburden shall have an intermediate bench at least 3.5 metres in width. Suggested specifications are:

The working of the face, sides, tops, or overburden of a quarry shall be carried out in such a manner as will prevent danger from falls of ground.

The overburden or tops of a quarry, and all loose ground or material, shall be cleared far enough back from the edge of the quarry to prevent danger to the persons employed.

The toe of all batters and intermediate benches shall be drained and such drains shall discharge to a silt retention pond.

As soon as practicable after completion of overburden excavation all exposed batters shall be protected from the effects of surface erosion.

Dust Suppression

Operation of any quarry shall incorporate dust suppression measures. Dust generation during blasting operations shall be minimised. All haul roads shall be regularly dampened by spray bars fitted to water tankers or similar systems in order to minimise dust generation by traffic movements. Crushers, screens and stockpiles shall be dampened by appropriate water sprays to minimise dust generation.

The following specification is proposed for dust suppression:

The contractor shall provide and operate plant and equipment for maintaining all surfaces in a damp condition and hence minimise the generation of dust. All haul roads shall be kept continually damp and appropriate water spray systems shall be available to dampen crushing and screening operations and stockpiled material as appropriate.

Archaeological Sites and Fossils

Should any archaeological sites be discovered during any stage of quarry development or operation all work shall immediately cease and inform the Ministry of Environment, Conservation and Forestry according to the

The following specification is suggested:

If the contractor locates any archaeological site or suspected archaeological site he shall immediately cease operations and notify the engineer forthwith. On no account shall extraction work continue until authorised by MOECFA.

Licensing

All project related quarries shall operate according to Myanmar Law and acquire the necessary licenses and permits including for existing or new quarries. If an existing quarry is to be used by the project, an audit will be carried out to discern the possible gaps between the quarry operation and World Bank Safeguards Policies and Myanmar regulation. Remedial actions similar to those proposed in the ECOP will be proposed to bring the quarry management up to compliance. According to Myanmar law, an ESMP or IEE will be prepared and submitted to MOECFA for retroactive licensing.

Annex 9: Summary of Public Consultations for the Environmental and Social Management Framework (ESMF)

Public consultation meetings on the Environmental and Social Management Framework (ESMF) for the proposed Myanmar Flood and Landslides Emergency Recovery Project were held at the World Bank Office in Yangon on 23 May 2016, at the DRD Regional Office in Bago on 1 April 2016; and at the Chin State Government Office in Hakha on 29 March 2016.

Bago	<ul style="list-style-type: none"> 49 participants attended from Government Departments, NGOs, Village Development Committee, Township Development Committee, Village leaders and DRD staff from Central, Regions, Districts and township levels. Daw Tin Moe Myint, Director, DRD delivered the introduction speech by explaining the components of the project, including implementation arrangements. U Soe Soe Oo, Deputy Director, DRD, described the ESMF objectives, process and steps. The consultation was interactive with questions/suggestions from participants and clarifications from DRD staff.
Chin	<ul style="list-style-type: none"> 75 participants attended including representatives from Government Departments, NGOs, ILO, Churches Village Development Committee, Township Development Committee, Village leaders and contractors. Opening speech was given by U Hone Ngai, Chief Minister, Chin State. U Hla Tun Oo, Chief Engineer presented the ERC objectives and contents of the project, with further details on Component 1. ESMF objectives, the overall process and specific steps were described. After the presentation, questions and answers followed.
Yangon	<ul style="list-style-type: none"> 26 participants attended from Government Departments, NGOs, and the World Bank. The meeting was introduced by U Htay Aung, Director (Civil), Department of Highway, Ministry of Construction; followed by welcome Remarks by Mr. Abdoulaye Seck, Country Manager, World Bank. Presentation was delivered by U Htay Aung (MOC) and Daw Tin Moe Myint (DRD), followed by questions from audience and answers by presenters/project team.

Questions and Responses

List of key issues and questions raised and how they are considered in the proposed project and ESMF are recorded in the table below:

Bago Consultation Questions Raised	World Bank Team Responses
<ul style="list-style-type: none"> Phyuu Township, Mrauk OO village Village Development Committee – Meikthalin-Kyaepin Pauk earth road is built but could not be used in raining season. Request to have concrete road for better access to social services. 	A build-back-better approach will be applied to rural road infrastructure to enhance the resilience to natural hazards and in this way ensure connectivity during disasters. The most cost-effective surface option will be applied (e.g. Minimum Steel Reinforced Concrete, Otta seal, DBST, Macadam)
<ul style="list-style-type: none"> Dr. Sein Tun, Township Development Committee – Phyuu is located in valley of Sittaung. Oak Phyet village was relocated because of flood. Farming 6000 acrea were flooded. Between, Oaktwin and kyakta were the most affected. Between Phyuu-Oak Phyet [number of] miles were flooded. There are not included in the dam construction. In the 	The project does not focus on river restoration but where needed, the roads will be elevated to be above flood level. The selection of roads to be rehabilitated will be made by DRD based on a defined set of criteria.

<p>context to village to village connection support will be appreciated. Barbuutaung areas were constructed last year and less affected in flood last year. Oak Phyet parts were needed as a small dam or road connection. Sittaung river is crooked and kyaukyee and phyu townships were effected due to river nature. River restoration, and maintenance are needed and request for river improvement. Small embankment or dam could be use as village connecting road. Township Development Committee can help on monitoring and request for quality road.</p>	<p>The engagement of local authorities and villages/communities is included in project design, particularly for maintenance of restored/improved infrastructure.</p>
<ul style="list-style-type: none"> U Ko Ko Oo, Deputy Director, Irrigation and Water Management Department: East of Sittaung were not much affected but west of Sittaung and Ayeyarwaddy river side were effected. Earth embankment build by earth were constructed in the colonial period. Some embankment path were improved to use as rural road. Existing embankment were maintained by uplifted 3-5 feet to protect flood. However, most of parts are in danger for the community. 8ft wide path can be used at least for people walk. Some are community embankment. 	<p>The project does not focus on river restoration but where needed, the roads will be elevated to be above flood level. The selection of roads to be rehabilitated will be made by DRD based on a defined set of criteria.</p>
<ul style="list-style-type: none"> Land Record Department, Deputy Chief of Bago: Recovery part – after disaster, farm lands were destroyed and people don't have land to farm. Most of the affected people now have housing but not land to farm; Complaints - legal framework mentioned the land law 2012 and 2014. Handling of complaints takes a very long time, especially at the village level; it takes at least 30 days to settle. 	<p>The Project includes a grievance redress mechanism that will allow swift and fair handling of complaints in line with the Bank safeguard policies. In addition communities can submit complaints directly to World Bank's Grievance Redress Service, or the Inspection Panel</p>
<ul style="list-style-type: none"> Water Resource Department- Assistant Director; Department helped to drill water way and protect water erosion. Happy to help. 	<p>Noted.</p>
<ul style="list-style-type: none"> Bago Region- MMWEA- Considering women work opportunities was appreciated. Floods impacted livelihoods of community but heavy impact was especially felt among women who migrated to city and other regions for better work opportunities. Vocational training for capacity development for women are implementing on a small scale. Established in 2003, the MMWEA can implement well. Lack of job opportunities, women are migrating abroad with high risk. Investment, such as in factories, are needed to create job opportunities. 	<p>Under Component 2, consultations, training, and targeting can enhance participation of women and ability to benefit from the labor-intensive programs. Sustainable maintenance is expected to generate employment opportunities for women living in communities along roads and bridges under rehabilitation.</p>
<ul style="list-style-type: none"> Environmental Department – Assistant Director. Appreciated the plans for protecting not only forest and inhabitant, and also suggested to include mangroves. 	<p>The ESMF aims at avoiding, mitigating and offsetting potential environmental impacts, including to forestry. The different mitigations measures will be tailored to the specific</p>

	subproject and its environment, including mangrove ecosystems where present.
<ul style="list-style-type: none"> Myabago village – 100 households’ leader Ko Thura: The village is very far and difficult to access. Starting from 2014, earth road constructed providing better access to health center. People used to walk 7 miles in muddy road. Request to prioritize on behalf of 1,350 households. For livelihood... 3.5 walk to reach to middle school, Pyinmapin village. 2 mile and one along to reach to bitumen road. Myabago 100 household leader Tun Tun Oo The last village and between Pyin mapin and Meikthalin. With lack access, community cannot access school and health centers. Phyu-Kanyut Kwin, Kinponshone village leader- San oo. 5 village 790 household and 3,950 people are living. Confluence point of 2-3 rivers and in danger of flood. 2.4 miles earth road/2.3 miles earth road were built. Community contributed with labor. When flood affected last year, distribution only possible by boat. Culvert bridges and drainage can be included with concrete road. MyaBago village tract leader supported other village support groups to help. 	<p>This is fully aligned with the project objectives. Improved roads and better accessibility from their villages to basic services will benefit people, especially the poor. In addition to better connectivity to basic services, improvements to local roads are also critical for the agriculture sector. Local roads improve linkages between farms and markets and help realize the full potential of the investment for the rural communities and the economy at large.</p> <p>Once the identification of specific road stretches is finalized, road designs will consider different options for sustainable solutions</p>
<ul style="list-style-type: none"> TDC secretary- U Kyaw Soe ; Township DC included town respective peoples. DRD and TDC are collaborating in monitoring of implementing activities. The work process is – contracting companies. But TDC includes identification but not monitoring. Some challenging issues can arise between communities and contractors. TDC is ready to help. Better coordination is needed. 	<p>The civil works contractors will be carefully and regularly monitored and supervised to ensure issues that may arise between communities and them will be addressed adequately. In addition, Project grievance redress mechanism will be set up to receive and address communities request and/or complaints relating to project implementation. The GRM will build on existing local institutions at the Village/Township Development Committees levels.</p>
<ul style="list-style-type: none"> Bago Region Environmental Department- Deputy Director, U Khine Tun. Economic-Social- EIA for sustainable development Bago- Planning Department- Daw Nyo Nyo Aung: Environment impact – construction of dam created large impacts. Regular monitoring and evaluations of dams to be implemented regularly. Coordination is needed not only respected departments but also with respect to ensuring community participation. 	<p>The project does not include any dam construction. The ESMF and subsequent Sub-project specific environmental and social instruments will include monitoring arrangements to supervise the correct implementation of mitigation measures during construction. The community will have access to the Project GRM and to World Bank accountability mechanisms.</p>
Hakha, Chin State	
<ul style="list-style-type: none"> U Ngon Sun Aung, Minister for Transportation discussed the importance of including proper drainage in design. 	<p>A build-back-better approach will be applied to enhance the resilience to natural hazards and in this way ensure connectivity during disasters. Appropriate drainage is an important aspect</p>

	when creating weather resilient roads which will receive due attention.
<ul style="list-style-type: none"> U Van Htaung, Agri and Irrigation Minister discussed the tender process and emphasized the need to follow relevant rules and regulations. 	The Bank Procurement and Consultant Guidelines, dated January 2011 and revised in July 2014, will apply. Implementing agencies will receive training on procurement and are responsible for compliance with procurement guidelines. The Bank will review regular financial reports and audits will be conducted.
<ul style="list-style-type: none"> U HtaLarHaYe, Director, State municipality discussed that the project include Kalay-Phalam-Hakha and Hakha-Gangaw. He wants to know whether is it included the roads in Hakha town or not 	Roads in Hakha town will not be included under project.
<ul style="list-style-type: none"> U Shan Man, Town elder asked whether the project considers dangerous areas in Hakha town 	The project does not include municipal infrastructure.
<ul style="list-style-type: none"> U Ha Yan Won, Development Support Group requested to do quality work as per relevant rules and regulation 	The whole project will follow quality assurance process standard to WB projects. A Quality Control System will be set up to ensure the quality of both detailed design document and the works performed on site. Funds are allocated to ensure mobilization of experts to monitor quality of investments. Technical laboratories will be established where soil samples, aggregate, and concrete can be properly tested to ensure that the highest quality of materials will be used in the rehabilitation works.
<ul style="list-style-type: none"> U Pao Lun Mint Htan enquired whether the Manipur bridge (on Tunzan-Kyee Kha road) included in the project or not. 	Specific road stretches and bridges will be identified jointly by MOC, the engineering consultants and the Bank based on a set of criteria, including feasibility and viability.
<ul style="list-style-type: none"> U Myint Tin asked about prevention work for environmental safeguard aspects 	The Project follows World Bank criteria and procedures for social and environmental safeguards.
<ul style="list-style-type: none"> U Lan Thin Man supported the project content and ESMF consultation 	Noted.
Yangon, Yangon Region	
<ul style="list-style-type: none"> Min Min Han-Enlighten Myanmar Research (EMR), was interested in livelihoods activities, and asked for clarification regarding job opportunities for local communities and livelihoods to help populations. 	DRD answered that rural road works and maintenance will include involvement of local communities in terms of labor for which they would earn income. Contractors would hire local people for unskilled work and create job opportunities in this way.
<ul style="list-style-type: none"> U Han Zar Thwan- (SDI/AECOM) asked about the GRM. He would like to know GRM activities on previous WB project. 	The World Bank explained the GRM mechanism, using the example of the National Community Driven Development project, which has received complaints. Daw Tin Moe Myint-DRD- explained and can share the data on the GRM by township.

	The process seeks to solve complaints at the community level. However, the system allows for complaints to be elevated to the district, national and project coordination level.
<ul style="list-style-type: none"> U Han Zar Thwan- (SDI/AECOM) enquired whether there is any duplication in the works in Chin with the works supported by other development partners 	There is regular coordination between the government and the development community to avoid duplication of works. MOC together with WB undertook a rapid assessment of the project sites affected by flood. MOC and WB will make sure not to duplicate efforts under the JICA-supported project.
<ul style="list-style-type: none"> Min Min Han-Enlighten Myanmar Research (EMR). Some houses can be affected because of road erosion or road construction. Victims should approach the Village Administrator. She advised to build capacity to handle complaints at the village/community levels for effective GRM. 	MOC answered that complaints should copy to MOC official at township level and Tin Moe Myint, requested to share details address in the Phalam township. The project will follow proper compensation procedure in the case of resettlement.
<ul style="list-style-type: none"> Aung Ko Ko-BRAC- the project includes roads and bridges- he wants to make a suggestion based on the Nargis experience. Bridges can be used as shelters if community trust the quality of construction. 	Infrastructure, if well-constructed, can serve both in cases of emergency to deliver services, but also as shelter. Options will be explored once the specific roads and bridges segments will be identified and the design of roads/bridges prepared.
<ul style="list-style-type: none"> U Kyaw Swa Soe, NSSK Co. Ltd –suggested that the contractor meets quality control and international standards. Contractor can often provide quality services but government bidding rates are often too low. 	Daw Tin Moe Myint- The project will ensure good design and monitoring system with sufficient resources. The whole project will follow quality assurance and procurement processes standard to WB projects.
<ul style="list-style-type: none"> U Kyaw Swa Soe, NSSK Co. Ltd asked why is Component 3 provides only US\$15 million for immediate disaster response. 	The World Bank explained that the planned IDA Immediate Response Mechanism would allocate an estimated USD70 million worth of positive items for equipment mostly for agricultural sectors. The Component 3 of this project - 15 million - could add to this projected amount. The Project Management and Knowledge Support Component includes technical assistance and capacity building, as well as office equipment, etc. The technical assistance includes for example efforts to establish disaster-resistant building codes and designs in rural and non-rural infrastructure.
<ul style="list-style-type: none"> Dr. Myo Nyunt – Ayeyarwaddy NLD CEC- enquired whether all rural road are concrete or not. Some roads are passing the wards and would like to suggest safety for children and community. To consider cultural sensitivity- both Rakhine and Chin. To consider the road access of community by trailers and motorbike. To do road awareness raising for community. 	The most cost-effective surface option will be applied (e.g. Minimum Steel Reinforced Concrete, Otta seal, DBST, Macadam). The ESMF and subsequent sub-project specific environmental and social instruments will include monitoring arrangements to supervise the correct implementation of mitigation measures during construction. The social

	<p>safeguards also consider potential cultural /regional sensitives.</p> <p>The investments – both on national and rural roads – include safety aspects and community awareness.</p>
<ul style="list-style-type: none"> Aung Ko Ko-BRAC - for water and sanitation activities, community has committee for maintenance. He would like to suggest the approach of community committee for maintenance. 	<p>Rural roads maintenance options will be explored during the project, including the use of community committee for maintenance. A maintenance fund also included in project and implementation will be coordinated by DRD and the respective communities.</p>
<ul style="list-style-type: none"> Ms.Julie, CCERR asked the terms of loan return 	<p>MOC explained the standard IDA terms which apply to the project.</p>
<ul style="list-style-type: none"> Aung Ko Ko-BRAC enquired whether there any plan to do quality control. 	<p>The whole project will follow a quality assurance process, which is standard to WB projects. A Quality Control System will be set up to ensure the quality of both detailed design document and the works performed on site. Funds are allocated to ensure mobilization of experts to monitor quality of investments. The World Bank will continue with providing implementation support including regular physical missions, and monitoring of expenditures, etc.</p>
<ul style="list-style-type: none"> U Kyaw Swa Soe, NSSK Co. Ltd: The proposed 200 million USD is small amount for rehabilitation. Does the World Bank provide also additional funding? 	<p>The World Bank is preparing another project for DRM, which is a regional project including Laos and Cambodia. Myanmar component will be about 100 million focusing on flood mitigation.</p> <p>According to OCHA, US\$220 million were provided from other donors for disaster rehabilitation.</p>
<ul style="list-style-type: none"> U Aung Pyae Phyo, PanThee Co. Ltd asked whether Chin- Rural roads has seen disturbances from community groups which could lead to delay of implementation. Delaying means waste of state budget. 	<p>DRD explained its experience and the process of handling construction and construction-related complaints. The first steps is to have a public meeting on road design. Per guidelines, pre-assessment, public meetings, and consultations are included in the process to avoid delays and miscommunications.</p>
<ul style="list-style-type: none"> U Han Zar Thwan- (SDI/AECOM) noted that the Hakha consultation was held on 29 April and enquired whether the new government participated in that meeting. 	<p>MOC answered that both old and new governments actively participated in the meeting.</p>
<ul style="list-style-type: none"> U Myo Nyunt- NLD emphasized that road signs should be placed during construction to minimize disturbance to the community. 	<p>Noted. MOC and DRD will do.</p>
<ul style="list-style-type: none"> Aung Ko Ko-BRAC – noted that consultations with community, CBOs, from the beginning of the projects are important, and could help community ownership and sustainability. 	<p>Noted. These three consultations held are part of project preparation, and consultations will continue and form important part in project implementation.</p>

Annex 10: Environmental Code of Practice: For the Management of the Prospective Disposal of Goods Purchased from Component 3 IDA Immediate Response Mechanism⁴⁶

This ECOP Based has divided the list of eligible goods into 3 categories, with regard to their nature and composition, as well as their relevance in terms of potential adverse E&S impacts, where they discarded as waste:

- (i) disposable goods with inert chemical properties and no physical hazards (e.g. towels, aluminum cooking bowls, soap, blankets, T-shirts;
- (ii) disposable goods with physical, chemical or biological hazards (e.g. glass bottles, pharmaceutical products, general medical waste such as used bandages, empty medication bottles, used syringes);
- (iii) durable goods, that will be in use / operation for years or decades (e.g. tractors, motorcycles, trucks, ambulances, boats, analytical equipment, computers etc.)

These categories would have very different environmental relevance, where **category (i)** probably can be entrusted to the existing waste management system, however flawed it may be, without significant risk to EHS; **category (iii)** is an issue that lies beyond the projects lifetime and leverage, and this category of goods is expected to outlive the project by years / decades. Also one can assume that the intrinsic value of these products, their parts, components and materials, will very likely create an economic incentive for extensive reuse and recycling.

The main concern, it would appear, needs to be directed at **category (ii)**, which are potentially hazardous, short-lived products (see list of goods in Annex 1.3). Most products under this category would appear to be best managed by a medical waste management plan (MWMP), for others, such as e.g. solvents, lubricants, paints, etc. a general waste management plan that includes hazardous wastes would be appropriate.

Common hazardous / noxious waste types, such as oils, solvents, paints etc. would have to be safely stored in suitable containers and disposed in a facility designed, constructed and operated for the safe disposal of hazardous wastes. Special facilities will be identified to treat e.g. spent engine oils, or incinerate solvents, paints etc. Such facilities commonly include cement kilns, where organic solvents, oils, bitumen etc. can be incinerated safely under high

For all durable goods, such as vehicles, boats, generators, electronic devices and medical equipment diligent repair and maintenance schedules should be required, and the recipient asked to produce repair and maintenance plans. For their disposal recycling and reuse options should be planned (e.g. recovery of scrap metal and electronic waste), and economic incentives for such identified and promoted.

Medical waste would be incinerated as far as possible, and all remains safely disposed, again in a safely engineered and operated facility. If such facilities do not exist, the provision of mobile incinerators is recommended (which in such case should be included in the list of eligible goods to be procured) and temporary storage in a facility deemed safe, until the country has developed and commissioned a suitable permanent facility. A detailed medical waste management plan is presented in the section below:

⁴⁶ Additional resources can be found at [Philippines \(Second Health Care Waste and Management Project\)](#); [Cambodia \(Health Sector Reform Projects\)](#) and [Timor Leste \(Health Sector Reform Projects\)](#).

Medical Waste Management Plan

The following provisions shall be duly considered and implemented by the Recipient, where goods are supplied under the emergency recovery project that - upon their disposal - would constitute medical waste, or any subcategory thereunder, such as biohazardous waste or infectious sharps.

1. DEFINITIONS

Biohazardous waste is waste that may contain pathogens capable of replication and of causing disease in humans, animals or plants.

Medical waste is biohazardous waste and/or sharps waste that may contain agents infectious to humans. Medical waste includes biohazardous waste capable of causing disease only in humans.

Medical waste does not include the following:

- A. Waste generated in food processing or biotechnology that does not contain an agent infectious to humans.
- B. Sharps waste not contaminated with medical waste. Note that nonmedical waste sharps must be disposed of in nonmedical waste sharps containers.
- C. Waste generated in biotechnology that does not contain human or animal blood or blood products suspected of being contaminated with agents infectious to humans.
- D. Urine, feces, saliva, sputum, nasal secretions, sweat, tears and vomitus unless they contain fluid blood from humans or animals known or suspected (treated with agents or show symptoms) to have agents infectious humans.
- E. Non-biohazardous waste such as paper towels, surgical gowns or bandages that contain non-fluid blood.
- F. Hazardous chemical waste, radioactive waste and household waste.
- G. Waste generated from normal and legal veterinary, agricultural, and livestock - management practices on a farm or ranch.

Medical sharps waste is discarded material that has acute rigid corners, edges or protuberances capable of cutting or piercing as described below:

- A. All discarded hypodermic needles attached to syringes or tubing as well as blades and syringes contaminated with medical waste.
- B. Discarded medical appliances, sharp devices, broken glass or plastic laboratory equipment, Pasteur pipettes, vacutainer tubes, etc. that are contaminated with medical waste.

Agents infectious to humans include but are not limited to viruses, bacteria, Chlamydia, rickettsia, protozoa, and fungi that are known to cause disease in humans.

Biohazard bags are disposable, commonly red bags of sufficient strength to preclude ripping, tearing or bursting under normal use and handling when full. The bag must meet rigorous standards, e.g. Standard D 1709-85 prescribed by American Society for Testing and Materials (ASTM) and must be certified by the bag manufacturer. Bags must be conspicuously labeled with the words "BIOHAZARDOUS WASTE" or with the international biohazard symbol and the word "BIOHAZARD."

Sharps containers are rigid, puncture-resistant containers that, when sealed, are leak resistant and cannot be reopened without great difficulty. Medical waste sharps containers must be labeled with the international biohazard symbol and the word “BIOHAZARD.”

Mixed hazardous or radioactive wastes contain a mixture of two or more of the following: medical waste, radiological waste and hazardous chemical waste.

2. SEGREGATION, CONTAINMENT, LABELING AND COLLECTION OF MEDICAL WASTE

Segregation and containment of medical waste

Medical waste will be segregated at the point of generation. Waste will be placed in RED biohazard bags labeled with the words “BIOHAZARDOUS WASTE” or with the international biohazard symbol and the word “BIOHAZARD.” Biohazard bags will be sealed at the point of origin to prevent leakage or expulsion of contents when they are ready for transport, treatment and disposal.

Biohazard bags will be labeled with a location identification, or affixed with a pre-printed sticker, indicating where the waste is generated. Bags will be placed in labeled, leak-proof secondary containers with tight-fitting covers. Medical waste bags will not be removed from the secondary container except for transfer to another secondary container or to the secondary storage container at the storage/accumulation site. Bags should not weigh more than 40 pounds.

Secondary containers must be labeled with the words “BIOHAZARDOUS WASTE” or with the international biohazard symbol and the word “BIOHAZARD” on the lid and on the sides, so as to be visible from any lateral direction.

Bagged medical waste will be transported in secondary containers to the designated storage/accumulation site and removed only when transferred into other secondary containers.

Disposal of sharps

Medical waste sharps will be placed in approved medical waste sharps containers prior to disposal. Medical waste sharps containers will be labeled with the generator’s building and room number. Approved medical waste sharps containers must be labeled with the words “BIOHAZARDOUS WASTE” or with the international biohazard symbol and the word “BIOHAZARD.” When full (contents reach fill line), transport the sharps containers to the designated accumulation site and place in labeled medical waste containers.

Note: Nonmedical sharps will be placed in sharps containers or other rigid, puncture-resistant, leak-resistant containers with a tight fitting lid that are not labeled as medical waste. These containers must not have biohazard symbols or any wording indicating medical waste, biohazard waste or biohazard materials.

Disposal of fluids

Human and non-human primate blood and body fluids, and the blood and body fluids of animals known or suspected to harbor human infectious agents, must be treated by adding chlorine bleach to a final concentration of at least 10%, and incubating for at least 30 minutes. The treated material can be disposed in the sanitary sewer. If liquid medical waste cannot be disposed of to an existing sewage system connected to a functioning wastewater treatment plant (WWTP), contact alternative disposal methods should be identified, which could include transport in safe, sealed, leak-proof containers to WWTPs that can process the residual liquids.

Mixed hazardous or radioactive waste handling

Medical waste containing hazardous chemicals requires special handling, transporting, treating and/or disposal methods. This waste is handled on a case-by-case basis.

Medical waste containing radioactive materials requires special handling, transportation and disposal and is handled as required by our campus-broad scope license for use of radioactive materials.

3. MEDICAL WASTE STORAGE / ACCUMULATION SITE

Containment

Medical waste will be placed either in red biohazard bags within an approved secondary container or into a sharps container, as appropriate, at the generation point. Medical waste may be stored at room temperature up to seven days after generation before treatment.

Site security

Secure EH&S-approved storage enclosures and accumulation areas by locking access doors or receptacle lids to prevent unauthorized entry. Medical waste in secondary containers must not be stored in unsecured, common-use rooms including autoclave rooms.

Post a sign on the exterior of entry doors, or adjacent to the entry doors. The sign must include the warning: “CAUTION – BIOHAZARDOUS WASTE STORAGE AREA – UNAUTHORIZED PERSONS KEEP OUT” in the appropriate local language(s), as well as the universal biohazard symbol (see figure 1 below).



Figure 1: International biohazard symbol

4. TREATMENT AND TRACKING RECORDS

A medical waste generator required to register pursuant to this chapter shall maintain individual treatment, and tracking records, if applicable, for three years, or for the period specified in the regulations, and shall report or submit to the enforcement agency, upon request, both of the following:

- A. Treatment operating records.
- B. An emergency action plan complying with regulations adopted by the California Department of Public Health.

5. DISINFECTING MEDICAL WASTE SPILLS AND DECONTAMINATING CONTAINERS

Secondary-container disinfection

Secondary containers for biohazard bags will be disinfected once every 30 days or whenever leakage occurs from the bags. One of the following chemical sanitizers should be used:

- A. Hypochlorite solution (500 ppm available chlorine)
- B. Iodophore solution (100 ppm available iodine)
- C. Quaternary ammonium solution (400 ppm active agent)

The container will be rinsed, sprayed or immersed in the sanitizer. The sanitizer will remain in contact with container surfaces for a minimum of three minutes before washing.

Procedures for using disinfectants for spills

Use appropriate commercial disinfectants, and follow label directions. The minimum required contact time for decontamination must be based on a risk assessment of the material to be decontaminated and the disinfectant properties. The risk assessment must be documented in the site's / location's safety manual.

Spill cleanup materials must be disposed as medical waste.

6. DISPOSAL

There are two options for the final disposal of medical waste:

If licensed specialized contractors are available, these should be identified and their credentials documented (including address of headquarters and disposal facilities, range of services / wastes for acceptance and appropriate licenses). Whenever waste is transferred from the generator to the disposal firm, types, quantities (weight and volume), containments and condition (solid / liquid) need to be documented. All medical wastes need to be handed over in properly labeled containers that are leak-proof and puncture-resistant and are tightly sealed to prevent escape of fluids or material. The waste then must be incinerated prior to disposal in a licensed and approved sanitary landfill, or safely stored in an alternative, temporary location, if such landfill is not available. This temporary storage facility should be inspected and approved on a case by case basis.

If no licensed specialized contractors are available, the generating facility must have appropriate facilities for the safe decontamination and / or destruction of medical wastes.

Part of the medical waste generated at such facilities - specifically sharps, blood, body fluids, and cultures and stocks only - is decontaminated on-site by autoclaving (or another method to be specified and approved) prior to disposal in a sanitary landfill. If a licensed and approved sanitary landfill is unavailable the residue may be stored on site in a safe containment that is inaccessible to unauthorized persons, on a temporary basis. Examples for such storage could be e.g. leak-proof and puncture-resistant containers stored in a lined pit, or a secured warehouse.

Pathological and / or contaminated waste (human tissue, used bandages) is incinerated in an on-site incinerator prior to disposal in a sanitary landfill (or, if such landfill is not available, on site in an appropriate temporary facility (see paragraph above). The on-site incinerator should be designed to handle the required volume of medical waste (expressed in weight per time unit, e.g.

kg/day) and operate at a temperature of at least 1,000°C. The incinerator should be licensed under Myanmar's regulations and inspected regularly for proper maintenance and operation.

Measures must be taken to minimize exposure of the facility's employees to infectious agents throughout the process of handling and disposing of the medical waste. Training should be provided upon hire regarding proper handling of medical waste, and is performed before the employee assumes duties that involve handling of medical waste. All employees should receive refresher training when a change in the medical waste management plan directly affects the employee's duties. Records should be maintained at the facility, which includes the employee's name, job classification, and dates of training as required. Training records are maintained for a minimum of 3 years. Personal protection equipment must be made available and its use enforced by facility management.

7. EMERGENCY PLANNING

In the event of e.g. a natural disaster that may interfere with the disposal of medical waste, all nonessential, medical-waste-generating activities will be suspended immediately. Spills and releases of bio-hazardous agents will be handled by the site's / location's appropriate emergency response unit, such as Fire Department, Emergency Response Team, or similar, in conjunction with location's EH&S department and local police department.

General Waste Management Plan

1. WASTE SOURCES AND STREAMS

The identified wastes may fall into two main groups of waste types:

- non-hazardous wastes; and
- hazardous wastes.

A Waste Inventory should be produced that covers disposal/treatment options which will be used to manage the wastes generated during construction.

2 NON HAZARDOUS WASTES

A number of non-hazardous wastes could be generated resulting from the goods distributed and purchased through the project. In summary the main non-hazardous construction wastes will include the following:

- Metals (scrap metal);
- Textiles (clothing, towels, tents);
- Timber (packaging materials);
- Containers (steel and plastic);
- Waste paper, card and cardboard (packaging materials);
- Plastics (packaging materials, tarpaulins, bottles);
- Glass bottles.

Metals will be provided to the local community (if required) for re-use or stored until an appropriate landfill has been established or recycled if a suitable facility is available. It is expected that the commercial value of scrap metal will facilitate recycling options.

Timber, e.g. from redundant untreated wooden packaging will be provided to the local communities for firewood and re-use.

In first instance, plastics materials (e.g. bottles) will be recycled. Plastics materials, which are unable to be recycled, will be transferred to a suitable landfill or for storage prior to the development of such landfill.

Glass bottles will be segregated and returned to the supplier for reuse, as far as possible. Prime recyclables (eg paper, card, plastics) will, as far as is practicable, be segregated for recovery/recycling. These materials will be supplied to the local community for reuse and recycling or to an approved third party facility.

The following options will be used to handle waste containers (which contained non-hazardous materials):

- re-used for storage (including waste storage if suitable);
- returned to supplier (if possible);
- supplied to the local community for re-use;
- disposed to landfill as last resort.

3 HAZARDOUS WASTES (excl. Medical Waste)

These wastes will arise mainly from operation and maintenance of boats, vehicles, generators, equipment and facilities. A number of hazardous wastes may be generated, which include:

- liquid fuels;
- lubricants, hydraulic oils;
- chemicals, such as anti-freeze, anti-corrosion products;
- paints and preservatives;
- original containers for all above;
- spillage control materials used to absorb oil and chemical spillages;
- machine/engine filter cartridges;
- fluorescent light bulbs;
- vehicle batteries.

The majority of the hazardous wastes listed above may be incinerated in a suitable facility, e.g. a waste incinerator or cement kiln. The exceptions to this are as follows:

- used lubricants will be return to the supplier;
- containers for hazardous materials will be re-used for storage of suitable hazardous waste, returned to supplier (if possible)
- fluorescent light bulbs will be crushed and sent to landfill.

4. STORAGE AND HANDLING PROCEDURES

This section discusses the measures and procedures (prior to treatment and/or disposal), which will be taken to manage waste produced at site level and ensure a Duty of Care is maintained by the good's recipients with respect to wastes for which recipients are deemed the holders. The management measures are discussed in the following order of priorities:

- Classification;
- Inventories;
- Handling;
- Labelling;
- Storage and Segregation; and
- Transport/transfer of waste.

5. WASTE TREATMENT AND DISPOSAL

5.1 REUSE/RECYCLE

Once wastes have been produced the first step in dealing with the wastes will be to endeavor to reuse or recycle the wastes where possible to reduce the volume of waste, which needs to be treated or disposed. Materials will either be sent for reuse/recycling directly from the site at which the waste is produced or from the central waste accommodation area.

Table 1: Reusable and Recyclable Wastes

Waste	Reuse/Recycle method
Waste vegetable matter	Waste vegetable matter ONLY may be provided to the local community to be used as pig feed.
Waste paper, card and cardboard	Provided to local community for reuse or to approved recycling plant
Plastics	Either sent to recycling plant for chipping / and/or provided to local community for reuse.
Glass Bottles	Returned to supplier for reuse.
Lubricating Oil	Returned to supplier.
Timber	Timber packaging (which cannot be reused) will be made available for communities to use as firewood.
Metal	If possible provided to local community for reuse or to a third party company for export and recycling
Containers (metal and Plastic)	Reused by for storage, returned to supplier or provided to local community for reuse (non hazardous materials ONLY).

5.2 TREATMENT AND DISPOSAL

In the event that the waste produced cannot be reused or recycled it is anticipated that the following waste treatment/disposal methods will be employed:

- Incineration;
- Landfill.

The treatment and disposal options, which will be used to manage each type of waste, should be identified in the provisional goods inventory once they have been procured.

3.3 USE OF APPROVED FACILITIES

Waste will only be transferred to third parties with appropriately permitted/licensed facilities under Myanmar's legislation that are capable of handling, utilizing, recovering, recycling, treating and/or disposing of the waste in a safe and environmentally sound manner. Third parties facilities will be periodically audited to determine the suitability of the facilities and whether transferred waste are being/have been managed appropriately. Transfer of waste to third parties must be fully documented on Waste Transfer Forms.

3.7.1 Hazardous and Non Hazardous waste Landfill

A certain landfill capacity will be required even if wastes are incinerated as not all solid refuse type wastes can be incinerated and incineration gives rise to residues which must be properly disposed of.

Non-hazardous waste may be disposed of to either non-hazardous waste landfill, providing it is designed, managed and licensed according to directive requirements. Hazardous waste will be disposed to a hazardous waste landfill.

3.8 TEMPORARY WASTE STORAGE

If suitable and approved facilities, in particular the incinerators and landfill, should not be available in time for the beginning emergency response activities under the project, interim storage of the wastes produced will be allowed on a case by case basis, until suitable treatment and disposal facilities have been developed.

4. TRAINING

The recipient will provide sufficient training to all staff to ensure that they are aware of the relevant aspects of the WMP and are able to fulfil their waste management roles and functions. Specific training will be provided to employees with specific duties associated with waste management.

List of Eligible Items under IDA IRM

Non-works related operating expenses (with prior approval of the World Bank) strictly related to the delivery of procured goods and implementation support. This may include expenses linked to travel and per diems, goods distribution, vaccination and feeding of animals procured for distribution, training and consultation workshops.
Items
Compound fertilizers

Mobile seed plants
Hermetic seal bags and accessories
Seeds and seedlings for horticulture crops
Moisture meters
Cold storage facilities equipment
Combine harvesters
Tractors and small-scale equipment (such as ploughs, harrows, seeding machines, rotators)
Post-harvest dryers
Shallow tube wells
Water pumps
Animal feed
Animal drugs
Equipment for land survey teams (such as measuring equipment and software including laptops, Real Time Kinematic (RTK) Global Positioning System (GPS), total station, power generators)
Bee-hives
Vehicles (including vehicles for land survey, pick up, and transportation vehicles)
Motorbikes
Fuel (including fuel for vehicles, power generators, and back hoe)
Fishing gears
Boats
Fish seeds
Back hoe for pond renovation
Fish fingerlings
Shrimp P Larvae

Annex 11: Chance Find Procedures

Chance Find Procedures

Contracts for road rehabilitation and reconstruction and any other work involving excavations (including new or expanded quarries) should incorporate procedures for dealing with situations in which buried physical cultural resources (PCR) are unexpectedly encountered. The final form of these procedures will depend upon the local regulatory environment, including any chance find procedures already incorporated in legislation dealing with antiquities or archaeology.

1. PCR Definition

In the absence of any other definition from the local cultural authorities, the following definition could be used: “movable or immovable objects, sites, structures or groups of structures having archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance”.

2. Ownership

The identity of the owner of the artifacts found should be ascertained if at all possible. Depending on the circumstances, the owner could typically be, for example, the state, the government, a religious institution, the land owner, or could be left for later determination by the concerned authorities.

3. Recognition

As noted above, in PCR-sensitive areas, recognition and confirmation of the specific PCR may require the contractor to be accompanied by a specialist. A clause on chance finds should be included in every contractor’s specifications.

4. Procedure upon Discovery

Suspension of Work

If a PCR comes to light during the execution of the works, the contractor shall stop the works. Depending on the magnitude of the PCR, the contractor should check with the Ministry of Culture for advice on whether *all works* should be stopped, or only the works immediately involved in the discovery, or, in some cases where large buried structures may be expected, all works may be stopped within a specified distance (for example, 50meters) of the discovery. Ministry of Culture decision should be informed by a qualified specialist.

After stopping work, the contractor must immediately report the discovery to the Resident Engineer and the relevant Project Component Implementation Units. The contractor may not be entitled to claim compensation for work suspension during this period. The Resident Engineer may be entitled to suspend work and to request from the contractor some excavations at the contractor’s expense if he thinks that a discovery was made and not reported.

Demarcation of the Discovery Site

With the approval of the Resident Engineer, the contractor is then required to temporarily demarcate, and limit access to, the site.

Non-Suspension of Work

The procedure may empower the Resident Engineer to decide whether the PCR can be removed and for the work to continue, for example in cases where the find is one small object (e.g. coin).

Chance Find Report

The contractor should then, at the request of the Resident Engineer, and within a specified time period, make a *Chance Find Report*, recording:

- Date and time of discovery;
- Location of the discovery;
- Description of the PCR;
- Estimated weight and dimensions of the PCR;
- Temporary protection implemented.

The *Chance Find Report* should be submitted to the Resident Engineer, and other concerned parties as agreed with the cultural authority, and in accordance with national legislation. The Resident Engineer, or other party as agreed, is required to inform the cultural authority accordingly.

Arrival and Actions of Cultural Authority

The cultural authority, under Ministry of Culture, undertakes to ensure that a representative will arrive at the discovery site within an agreed time such as 24 hours, and determine the action to be taken. Such actions may include, but not be limited to:

- Removal of PCR deemed to be of significance;
- Execution of further excavation within a specified distance of the discovery point;
- Extension or reduction of the area demarcated by the contractor.

These actions should be taken within a specified period. The contractor may or may not be entitled to claim compensation for work suspension during this period. If the cultural authority fails to arrive within the stipulated period (for example, 24 hours), the Resident Engineer may have the authority to extend the period by a further stipulated time. If the cultural authority fails to arrive after the extension period, the Resident Engineer may have the authority to instruct the contractor to remove the PCR or undertake other mitigating measures and resume work. Such additional works can be charged to the contract. However, the contractor may not be entitled to claim compensation for work suspension during this period.

Further Suspension of Work

The Cultural authority, under Ministry of Culture, may be entitled to request the temporary suspension of the work at or in the vicinity of the discovery site for an additional period of time. The contractor may, or may not be, entitled to claim compensation for work suspension during this period. However, the contractor will be entitled to establish an agreement with the cultural authority for additional services or resources during this further period under a separate contract with the cultural authority.