

3 ADMINISTRATIVE FRAMEWORK

3.1 INTRODUCTION

This chapter summarises the Administrative Framework for the Project, covering national requirements as well as applicable international treaties and conventions, and internal guidelines and standards voluntarily committed to by the Project Sponsors. The intent of this chapter is to lay out the regulatory and non-regulatory performance requirements for all stages of the Project.

3.2 NATIONAL ADMINISTRATIVE REQUIREMENTS

3.2.1 Overview of Myanmar Legislation

The Constitution

The latest enacted Constitution (May 2008) provides information on governing laws and regulations in Myanmar. The Constitution takes precedence over any other national legislation or international agreements. The general provisions of the Constitution that relate to the Project are the requirement for Myanmar citizens to assist in:

- Preservation and safeguarding of cultural heritage;
- Environmental conservation;
- Striving for development of human resources; and
- Protection and preservation of public property.

Administrative Divisions of Myanmar

Myanmar is divided into twenty-one (21) main administrative subdivisions, which include:

- Seven states;
- Seven regions (Note that regions were previously referred to as “divisions”, prior to August 2010);
- Five self-administered zones;
- One self-administered division; and
- One union territory.

The administrative subdivisions are detailed in **Table 3.1**, and an administrative map is presented in **Figure 3.1**.

Table 3.1 Administrative Regions of Myanmar

Name	Capital	Population	Area
Ayeyarwady Region	Patheingyi	6,663,000	35,138
Bago Region	Bago	5,099,000	39,404
Chin State	Hakha	480,000	36,019
Kachin State	Myittha	1,270,000	89,041
Kayah State	Loikaw	259,000	11,670
Kayah State	Pa-an	1,431,377	30,383
Magway Region	Magwe	4,464,000	44,819
Mandalay Region	Mandalay	7,627,000	37,021
Mon State	Mawlamyaing	2,466,000	12,155
Rakhine State	Sittwe	2,744,000	36,780
Sagaing Region	Sagaing	5,300,000	93,527
Shan State	Taunggyi	4,851,000	155,801
Tanintharyi Region	Dawei	1,356,000	43,328
Yangon Region	Yangon	5,560,000	10,170
Naypyidaw Union Territory	Naypyidaw	925,000	N/A
Danu Self-Administered Zone	Pindaya	N/A	N/A
Kokang Self-Administered Zone	Laukkai	N/A	N/A
Naga Self-Administered Zone	Lahe	N/A	N/A
Pa-O Self-Administered Zone	Hopong	N/A	N/A
Pa Laung Self-Administered Zone	Namhsan	N/A	N/A
Wa Self-Administered Division	Hopang	N/A	N/A

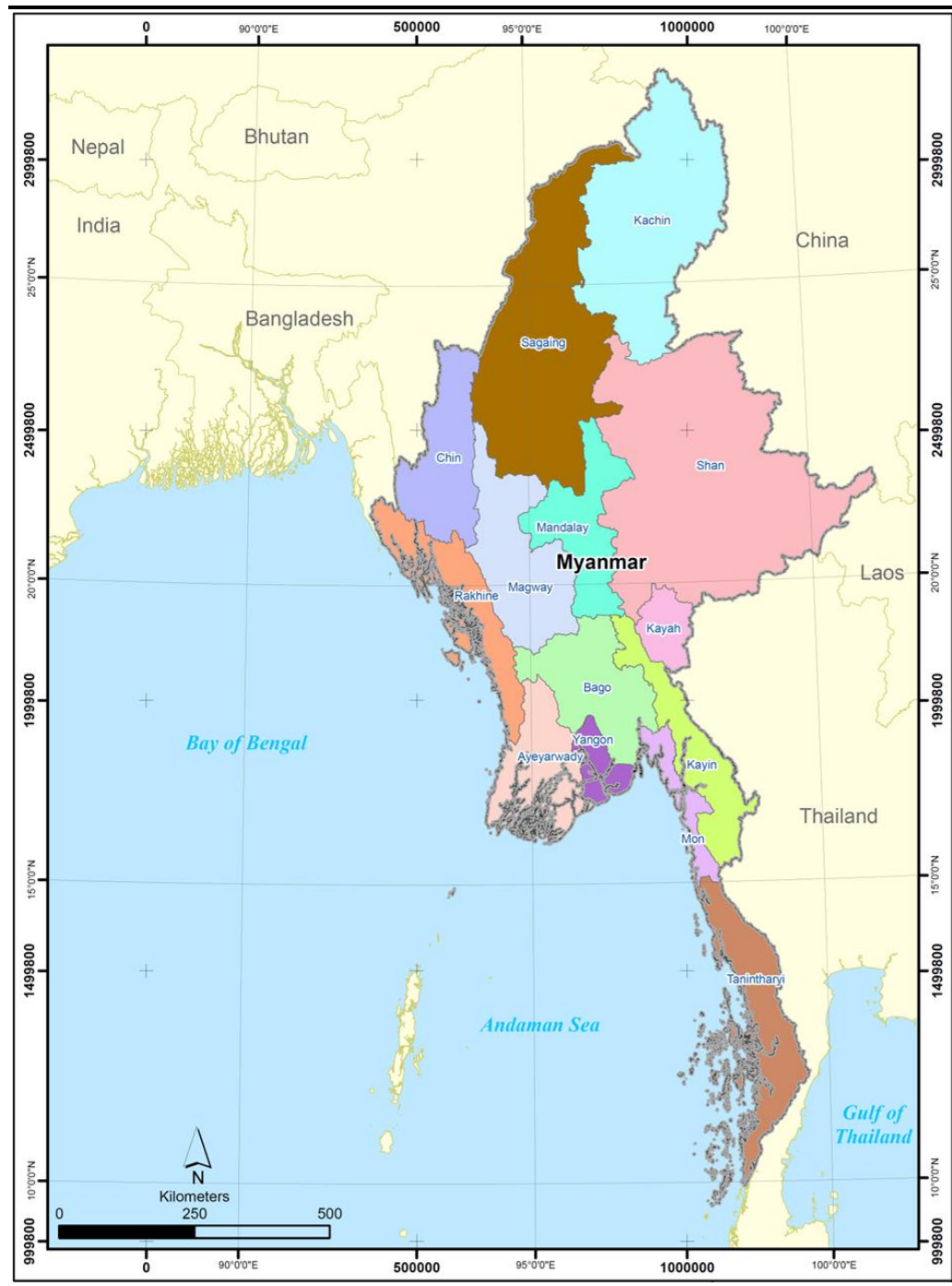
States and regions are divided into districts. Districts consist of townships, which are composed of towns, wards and village-tracts. Village-tracts are groups of adjacent villages. The administrative structure of the states, regions and self-administering bodies is defined in the Constitution.

Each region and state has a Regional/State Government, consisting of a Chief Minister, Ministers and an Advocate General. Legislative authority resides with the State/Regional “Hluttaw” (a parliament or legislative body), which are made up of elected civilian members and representatives of the military.

The Constitution states that Naypyidaw is a Union Territory under the direct administration of the President. The Naypyidaw Council, led by a Chairperson, carries out general functions on behalf of the President. The Chairpersons of the Naypyidaw Council are appointed by the President, and include civilians and representatives of the military.

Self-Administered Zones and Self-Administered Divisions are administered by a Leading Body, which is headed by a Chairperson, and has executive and legislative powers. The Leading Body consists of elected State/Regional Hluttaw members and military personnel.

Figure 3.1 Myanmar States/Regions and Townships



ESHIA Requirements in Myanmar

Myanmar currently does not have effectively implemented regulatory requirements for environmental, social and health impact assessments (ESHIA). However, a number of environmental laws are either pending or in the final stages of government approval, and the situation with respect to ESHIA requirements in Myanmar is expected to undergo significant imminent changes. As such, this section will highlight both the current and pending legislation with respect to ESHIAs.

The Myanmar Government has had plans to install new laws on ESHIA requirements since at least 2009. Laws related to ESHIA requirements (including those that are currently pending) are as follows:

Environmental Policy, 1994, Myanmar Agenda 21, 1997, and National Sustainable Development Strategy, 2009

Myanmar issued an Environmental Policy in 1994, which was as follows:

"... The wealth of the nation is its people, its cultural heritage, its environment and its natural resources. The objective of Myanmar's Environment Policy is aimed at achieving harmony and balance between these, through the integration of environmental considerations into the development process to enhance the quality of life of all its citizens. Every nation has the sovereign right to utilize its natural resources in accordance with its environmental policies, but great care must be taken not to exceed its jurisdiction or infringe upon the interests of other nations. It is the responsibility of the State and every citizen to preserve its natural resources in the interest of present and future generations. Environmental protection should always be the primary objective in seeking development".

With a view to implementing a National Environment Policy (NEP), the National Commission for Environmental Affairs (NCEA) formulated Myanmar Agenda 21 in 1997 under the guiding principles established at the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992. The Agenda 21 provided the first framework for integrating environmental considerations into national development plans in Myanmar. The purpose of Agenda 21 is to mobilize and focus national efforts to achieve sustainable development, and is intended to have the following functions:

- a) To define the choices, set the goals and targets, and establish the standards for sustainable development in Myanmar;
- b) To illuminate the environmental and ethical dimensions underlying the choices to be made and goals to be achieved in sustainable development;
- c) To analyze the ecological, economic and social issues in the country in a comprehensive and integrated fashion, clarifying the links between them, identifying the policy gaps, and showing how to reduce conflicts between environment and development;

- d) To identify and evaluate options for addressing priority issues, problems and opportunities, including the identification of appropriate programmes for legal reform, development of economic instruments, institutional development, capacity-building and other measures;
- e) To set out sectoral and cross-sectoral policies and plans which rationalize the responsibilities for sustainable development, reduce duplication, close gaps, prevent or reduce conflicts, and take advantage of compatibilities and synergies among sectors and interest groups;
- f) To improve decision-making and policy formulation through better information and analytical techniques, and by enabling those most affected by decisions to participate in the decision-making process;
- g) To develop understanding and build consensus so that decisions have strong support;
- h) To identify, promote and support actions leading to sustainable development and to reduce, abate and put a stop to actions impeding sustainable development;
- i) To identify and apply practices which sustain the resource base of the economy, achieve sustainable levels of resource use, restore degraded natural resources, make use of unused or under-used resource potential, improve the efficiency of existing resource use, and diversify the use or seek substitution of existing resources;
- j) To determine priorities for action, evaluating costs and benefits and the trade-offs between the different concerns affecting all levels of society;
- k) To provide a basis for the allocation and optimal use of limited resources;
- l) To develop and strengthen institutions for sustainable development; and
- m) To build up the capacity of institutions and the population of the country to handle complex and inter-related issues through frameworks which integrate environmental concerns with planning.

Subsequently in 2007, the NCEA developed the National Sustainable Development Strategy (NSDS) for Myanmar. It incorporated the aspirations of the Agenda 21 as well as Myanmar's Millennium Development Goals. The NSDS was approved in 2009 and served as the main guiding principal on environmental protection in the country.

Specific strategies are outlined under each goal. For example, the goal for Sustainable Management of Natural Resources suggests strategies for forest resource management, sustainable energy production and consumption, biodiversity conservation, sustainable freshwater resources management, sustainable management of land resources, sustainable management for mineral resources utilization, etc.

The aim of NSDS is to achieve sustainable development through three sectors, focused on natural resource management, economic development, and social

development. Relevant government ministries are expected to institutionalize NSDS principles into their sectoral development through short-term, medium-term and long-term actions.

Although much of the NSDS guidelines are for adoption and integration into the government legislation and regulation body, some are targeted at the private sector, such as the polluter pay principle, and reduction of energy consumption and greenhouse gas emission from industries.

The Environmental Conservation Law, 2012

The legal mechanism for ESHIA has been put in place with the 2012 Environmental Conservation Law. The law was enacted on April 1, 2012, based on a draft written in 1998.

According to the text of The Environmental Conservation Law, the main objectives of the Law are as follows:

- a) to enable to implement the Myanmar National Environmental Policy;
- b) to enable to lay down the basic principles and give guidance for systematic integration of the matters of environmental conservation in the sustainable development process;
- c) to enable to emerge a healthy and clean environment and to enable to conserve natural and cultural heritage for the benefit of present and future generations;
- d) to reclaim ecosystems as may be possible which are starting to degenerate and disappear;
- e) to enable to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially;
- f) to enable to implement for promoting public awareness and cooperation in educational programmes for dissemination of environmental perception;
- g) to enable to promote international, regional and bilateral cooperation in the matters of environmental conservation;
- h) to enable to cooperate with Government departments, Government organizations, international organizations, non-government organizations and individuals in matters of environmental conservation.

The following articles are particularly relevant to ESHIA requirements and this project:

“7. The duties and powers relating to the environmental conservation of the Ministry are as follows:

...

(m) causing to lay down and carry out a system of environmental impact assessment and social impact assessment as to whether or not a project or activity to be undertaken by any Government department, organization or person may cause a significant impact on the environment;”

Also in this law, Article 14 and Article 15 are related with waste disposal in accordance with environmental standards:

“14. A person causing a point source of pollution shall treat, emit, discharge and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards.

15. The owner or occupier of any business, material or place which causes a point source of pollution shall install or use an on-site facility or controlling equipment in order to monitor, control, manage, reduce or eliminate environmental pollution. If it is impracticable, it shall be arranged to dispose the wastes in accord with environmentally sound methods.”

Article 19 is related to maintenance of cultural heritage:

“19. The Ministry shall cooperate 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.”

For violations of bylaws, regulations and directives issued under this law, punishment is not more than one year or fine (unspecified amount), or both, under Article 32.

Environmental Conservation Rules (2013)

The Environmental Conservation Rules were approved by cabinet in 2013, and The Ministry of Environmental Conservation and Forestry passed the Environmental Conservation Rules on 5 June 2014.

The Environmental Conservation Rules detail the environmental policy and implementation framework of the 2012 Environmental Conservation Law. According to the Rules, the Ministry of Environmental Conservation and Forestry (the “Ministry”) with the approval of the Environmental Conservation Committee (the “Committee”) is authorized to prescribe: (a) the amount of liability owing from a person or entity causing environmental damage; and (b) the amounts of contribution to be made to the Environmental Management Funds by persons or entities engaged in environmental services and extraction of natural resources.

The Ministry is also authorized to specify: (a) the projects, businesses, services, or investments for which environmental impact assessments (“EIA”) must be conducted; and (b) the businesses, work sites, or factories that can potentially damage the environment for which prior permission from the Ministry must be sought. The second list must be approved by the Union Government and confirmed by the Committee. However, it is important to note that even if a project, business, service, or investment does not fall under those for which EIA must be conducted, the Ministry may still require an Initial Environmental Examination in order to determine whether an EIA is in fact necessary. Additionally, companies must seek the confirmation of the Ministry before appointing an EIA service provider.

In addition, the Environmental Conservation Rules stipulate the following relevant articles under Chapter (XI) Environmental Impact Assessment:

“54. The business, department, organization or person who would carry out categories of plan, business or activity stipulated under rule 52:

- (a) shall carry out environmental impact assessment for his plan, business or activity;*
- (b) submit to the Ministry in advance by which organization or person, the environmental impact assessment is intended to be carried out;*
- (c) submit the environmental impact assessment report to the Ministry.*

55. The plan, business or activity which is established before the issue of these rules and responsible to carry out the environmental impact assessment or initial environmental examination shall prepare the environmental management plan in accord with the environmental impact assessment procedure to be issued under the Law and submit to the Ministry. The Ministry shall scrutinize the environmental management plan for approving it. The person who carries out the project, business or activity shall implement the environmental management plan approved by the Ministry and matters stipulated by the Ministry within the time stipulated by the Ministry.

56. The person who carries out any project, business or activity shall arrange and carry out for conducting the environmental impact assessment for any project, business or activity by a qualified third person or organization accepted by the Ministry.

57. The Ministry shall, on submission to the Ministry in advance by which organization or person, the environmental impact assessment is intended to be carried out under sub-rule (b) of rule 54, determine and decide, after making scrutiny, whether or not it is suitable level of international organization or person to carry out the environmental impact assessment. The decision of the Ministry relating to such matter is final and conclusive.

58. The Ministry shall form the Environmental Impact Assessment Report Review Body with the experts from the relevant Government departments, Government organizations.

59. If the private persons are included in the Environmental Impact Assessment Report Review Body, honorariums, allowances and aids for them may be borne from the environmental management fund.

60. The Ministry may assign duty to the Department to scrutinize the report of environmental impact assessment prepared and submitted by a third person or organization relating to environment impact assessment and report through the Environmental Impact Assessment Report Review Body.

61. The Ministry may approve and reply on the environmental impact assessment report or environmental management plan with the approval of the Committee.”

Foreign Investment Law, 2012, Foreign Investment Rules, 2013, and Notifications for Investment, 2013

Myanmar passed a new Foreign Investment Law on November 2, 2012, which replaced the Myanmar Foreign Investment Law of 1988. The recently enacted rules require ESIA for large projects according to the rules of the Ministry of Environmental Conservation and Forestry.

Although the law does not specifically define legislation for EIAs, Notification 1/2013 provides a categorization of the business activities in which foreigners will be allowed to engage. Under this, “Electrical power production” projects fall under “Category 3.3: activities allowed only following an Environmental Impact Assessment”. Specifically, electrical power production projects “must conduct Environmental Impact Assessment and obtain and follow MOECAF’s terms and conditions”.

Draft – Environmental Impact Assessment Procedure (Pending, currently on 8th Draft as of January 2015)

An Environmental Impact Assessment Procedure is currently being drafted by the Ministry of Environmental Conservation and Forestry. This is currently in a preliminary draft form, but states that:

“...all Projects undertaken in the Republic of the Union of Myanmar by any ministry, government department, organization, corporation, board, development committee, local government or authority, company, cooperative, institution, enterprise, firm, partnership or individual having the potential to cause significant Adverse Impacts, are required to undertake IEE or EIA and to obtain an ECC in accordance with this Procedure.”

According to the Draft EIA Procedure, based on the criteria indicated in Annex 1 ‘Categorization of Economic Activities for Assessment Purposes’, coal-fired power plants greater than 10 MW require an EIA.

The EIA Procedure also outlines requirements for Scoping for all EIA Projects, which are required to be undertaken according to Article 40 and 41, as follows:

“40. The Scoping shall, in respect of the proposed Project:

- a) define the study area, area of influence, time boundaries, project phases, and potential stakeholders;*
- b) start the process of understanding the applicable regulations and standards, and their context for Project design and completion of the EIA;*
- c) make a provisional identification of Environmental, Social and, if any, Health Impacts, focusing in particular on the environmental, social and health issues that need to be addressed in subsequent EIA studies;*

- d) *provide an indication of what baseline data and information are required, and how it is proposed to obtain it (although there is no need to actually collect any data at this stage);*
- e) *provide an opportunity for consultants, relevant authorities, project developers, interested and affected parties to express their views and concerns regarding the proposal before an EIA proceeds;*
- f) *enable an efficient and comprehensive assessment process that saves time, resources, costs and delays; and*
- g) *identify potentially affected communities and other stakeholders with an interest in the Project.*

41. *As part of the Scoping, the Project Proponent shall ensure that the following public consultation and participation process is carried out:*

- a) *disclose information about the proposed Project to the public and civil society through local media, including by means of the prominent posting of legible sign boards and advertising boards at the Project site which are visible to the public; and*
- b) *arrange the required complement of consultation meetings as advised by the Ministry, with local communities, potentially PAPs, local authorities, community based organizations, and civil society.”*

Furthermore, EIA Investigation shall encompass the requirements of Article 47 through 52:

“47. An EIA investigation shall consider all biological, physical, social, economic, health, cultural and visual components of the environment, together with all pertinent legal matters relating to the environment (including land use, resources use, and ownership of and rights to land and other resources) that may be affected by the Project during all project phases including pre-construction, construction, operation, decommissioning, closure, and post-closure; and shall identify and assess all Adverse Impacts and risks for environment, social and, if relevant, health that potentially could arise from the Project.

48. *The investigations shall include all necessary data collection, technical studies, modelling, field surveys, field sampling, laboratory analysis, engineering designs and calculations, and consultations to determine and document that all feasible measures are taken to ensure that all Residual Impacts are within standards and are acceptable to the Ministry and interested and affected persons.*

49. *The investigation shall also include an analysis of Alternatives. Such analysis shall include a description of each Alternative, and an assessment and comparison of the Adverse Impacts, required mitigation measures and Residual Impacts of the Alternatives.*

50. *The Project Proponent is obliged to use, comply with and refer to applicable national standards, international standards adopted by the Government and/or the Ministry, or, in the absence of relevant national or adopted international standards, such standards as may be agreed with the Ministry.*

51. *The EIA shall consider the views, concerns, and perceptions of stakeholders, communities and individuals that could be affected by the Project or who otherwise have an interest in the Project. The EIA should include the results of public consultations and negotiations with the affected populations on the environmental and social issues. Public concerns should also be taken into account in assessing impacts, designing mitigation measures, and selecting monitoring parameters.*

52. *As part of the EIA investigations, the Project Proponent shall undertake the following consultation process:*

a) timely disclosure of all relevant information about the proposed Project and its likely Adverse Impacts to the public and civil society through local and national media, the website of the Project Proponent, at public places such as libraries and community halls and sign boards at the Project site visible to the public

b) arrange consultation meetings at national, state and local level with PAPs, authorities, community based organizations, and civil society;

c) consultations with concerned government organizations including the Ministry, the concerned sector ministry, regional government authorities, and others; and

d) field visits for the Ministry and concerned government organizations.”

Pending (Draft) Approval Process

According to the Draft EIA Procedure, depending on project type and scale, location and the potential environmental impact, one of three levels of assessment will be allocated to a proposed development project:

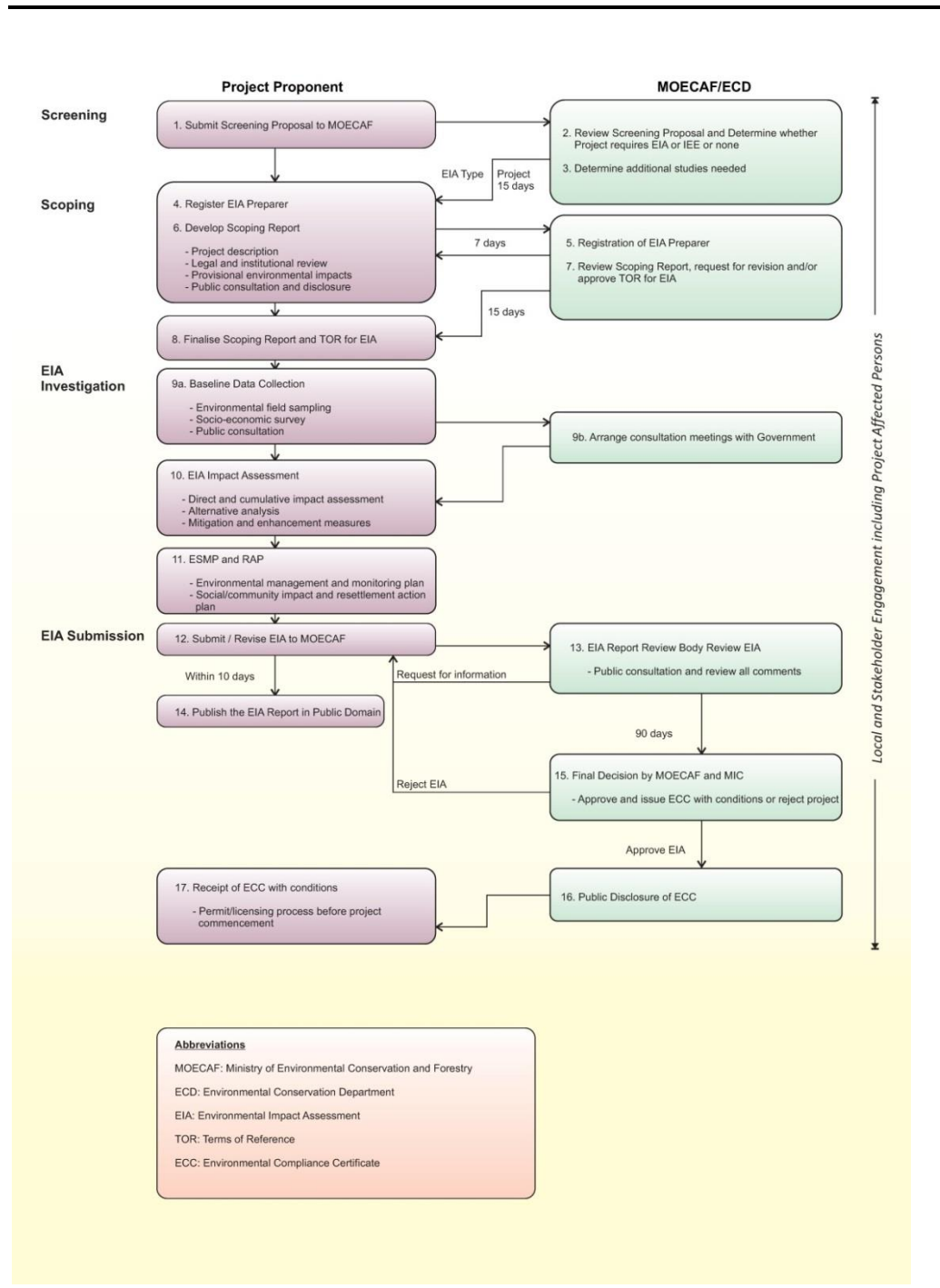
Environmental Impact Assessment (EIA);

Initial Environmental Examination (IEE); or

Neither an EIA nor an IEE - an environmental assessment is not required.

According to the current Draft of the EIA Procedures, thermal power projects require an EIA. The Draft EIA Procedures stipulate that the Project is therefore required to submit the EIA to MOECAP for review and obtain an Environmental Compliance Certificate (ECC). If the EIA is satisfactory, MOECAP will approve the EIA Report, and issue an ECC. The procedure is shown in **Figure 3.2**.

Figure 3.2 EIA Review and Approval Process (According to Draft EIA Procedure, 2014)



Myanmar Protected Areas

The first legal instrument related to protected areas, which designated a wildlife sanctuary in the environs of the Royal Mandalay City, was promulgated in 1859. The first piece of wildlife legislation to be enacted was the Wild Elephant Protection Act of 1879. The Forest Act of 1902 gave responsibility for wildlife management to the Forest Department. Legislation specific to wild animals followed in 1927, and broader legislation followed nine years later with the Wildlife Protection Act of 1936. This provided for designation of wildlife sanctuaries with species-specific conservation objectives. Legislation was revised in 1994 with issue of the Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law. The 1994 Law, which was issued by the State Law and Order Restoration Council, provides for:

- A Committee for the Protection of Wildlife and Wild Plants and Conservation of Natural Areas, which is to serve as an advisory body to the Minister of Forestry; supervise implementation of the Law; give guidance in matters of research, conserving species in danger of extinction and international cooperation;
- Categories of 'natural areas' and zoological and botanical gardens, their declaration and uses;
- Categories of protected wild animals (almost the same as provided for under earlier law): completely protected, normally protected and seasonally protected;
- Hunting licences;
- Establishment of zoological and botanical gardens;
- Registration of ownership of completely protected animals or trophies thereof;
- Administrative actions;
- Appeals; and
- Offences and penalties.

The categories of so-called 'natural areas' are defined in the Law described above as:

- Scientific Nature Reserve;
- National Park;
- Marine National Park;
- Nature Reserve;
- Wildlife Sanctuary;
- Geo-Physically Significant Reserve; and
- Other Nature Reserve Determined by the Minister.

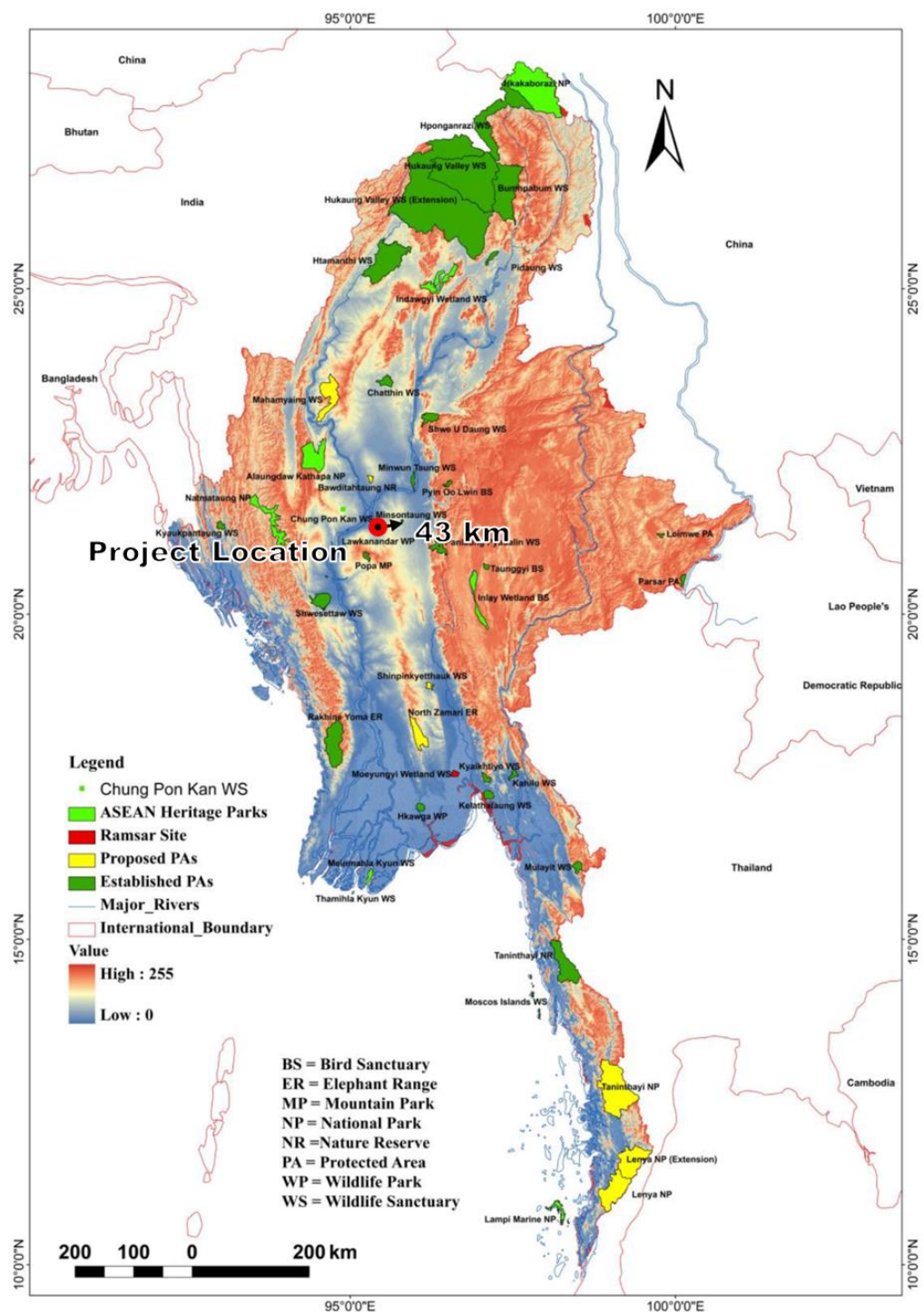
A total of 43 protected areas have been established or proposed in Myanmar, and are shown in **Figure 3.3**. The nearest protected area to the Project is Minsontaung Wildlife Sanctuary, which is located 43 km northeast of the Project, and the details of which are shown in **Table 3.2**.

Table 3.2 Protected Areas in Myanmar

No	Name	National Designation	Year Established	Location and Coordinates	Area (km ²)	Key Species Protected
1	Minsontaung W.S	Wildlife Sanctuary	2001	Mandalay Region, Nwahtogyi Township, 21°25'N, 95°47'E	23	Burmese Star Tortoise

Source: Myanmar Protected Areas: Context, Current Status and Challenges, 2011

Figure 3.3 Protected Areas in Myanmar and Project Location



Source: Fifth National Report to the United Nations Convention on Biological Diversity, Ministry of Environmental Convention and Forestry, March 2014

Myanmar Legislation Specific to the Power Sector

Existing legislation governing the power in Myanmar is mainly contained in the 1984 Electricity Law and the accompanying 1985 Electricity Rules.

The Electricity Law distinguishes between generation, transmission, distribution and use of electricity. It establishes permissions required by the relevant authorities for installation, generation, transmission, distribution and inspection activities. The law does not address environmental issues, ownership, financing, tariffs, land use, or other environmental, social and health issues relevant to power projects.

A new draft electricity law is currently being prepared by the Ministry of Electric Power (MOEP). The draft law will establish an electricity regulatory commission within the MOEP, to formulate policy, prepare tariffs, advise the MOEP, set standards and form inspection bodies. The draft law divides projects into “small” (up to 10MW), “medium” (between 10MW to 30MW) and “large” (upwards of 30MW) projects. States and regions can issue permits for small and medium power plants, while the MOEP will approve permits for large-scale power plants or plants connected to the national power grid.

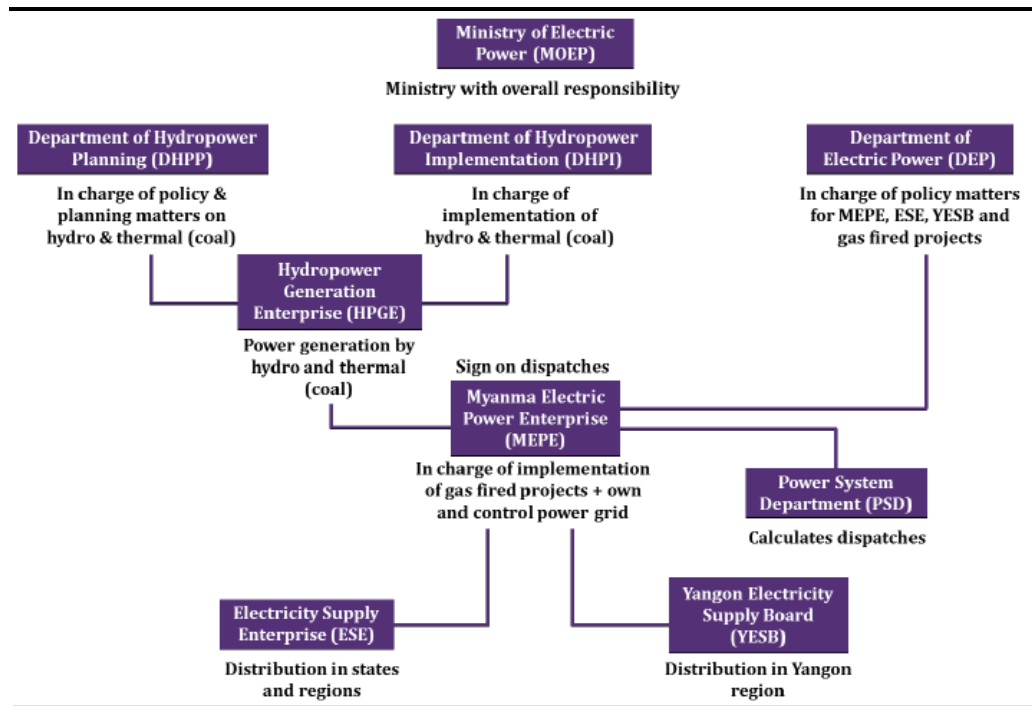
Government Administration of Myanmar Power Sector

The power sector in Myanmar is governed primarily by the Ministry of Electric Power (MOEP), as shown in **Figure 3.4**. MOEP supervises the sector and governs power generation, transmission and distribution. Various other ministries play a role, as follows:

- **Ministry of Electric Power (MOEP)** - primary responsibility for electricity planning, generating and transportation. It is also the sole supplier of natural gas for power generation and is responsible for issuing regulations on the generation, transmission and delivery of electric power in Myanmar. It consists of three main departments, the Department of Electricity Planning (DEP), the Department of Hydropower Implementation (DHPI) and the Department of Hydropower Planning (DHPP).
- **Myanmar Electric Power Enterprise (MEPE)** - solely responsible for purchasing power from public and private power producers, including Build, Operate Transfer (BOT) project companies, and reselling that power on to the ESE and the YESB. In addition, the MEPE controls all transmission lines and substations.
- **Hydropower Generation Enterprise The Hydropower Generation Enterprise (HPGE)** - government partner for all hydro-generation BOT projects, and operates and maintains all large-scale public sector hydro-generation facilities.
- **Yangon City Electricity Supply Board (YESB)** - plans, develops and maintains the Yangon electricity distribution system.
- **National Energy Management Committee (NEMC)** – recently implemented body that will, among other duties, coordinate with the Privatization Commission and the Myanmar Investment Commission in order to facilitate development of the energy and electricity sectors through private investments.

- Ministry of National Planning and Economic Development (MNPED)** - oversees the Directorate of Investment and Company Administration (DICA) and its sub-agency, the Myanmar Investment Commission (MIC). DICA oversees the process of company registration in Myanmar, and oversees the Foreign Investment Department (FID), who has a role in reviewing applications and is responsible for issuing the relevant licenses and permits after MIC and DICA approval. MIC is responsible for interfacing with foreign investors incorporated under the FIL.

Figure 3.4 Ministry of Electric Power Organizational Chart



Source: VDB Loi, 2014

3.2.1.1 Other Project-Relevant Legislation in Myanmar

Table 3.3 provides a list of major environmental laws relevant to the Project.

Given that additional guidelines associated with the Environmental Conservation Law (2012) are relatively new, the MOECAF typically recommends that internationally accepted environmental standards, such as Asian Development Bank (ADB) Safeguard standards, International Finance Corporation (IFC) standards / guidelines and Equator Principles to be adopted for any environmental issues/assessment. As part of the recent revision and issuing of the bill it is understood there are plans for further rules and regulations of environmental conservation to be drafted⁽¹⁾. Additional project-relevant legislation is discussed below.

Public Health Law

Section 3 of the Public Health Law includes a general provision that empowers the Government of the Union of Myanmar to “carry out measures” relating to

⁽¹⁾ Government to approve new conservation law, Feb 2014, Eleven Media Group Myanmar, accessed 17 June 2014

environmental health, such as garbage disposal, use of water for drinking and other purposes, radioactivity, protection of air from pollution, sanitation works and food and drug safety. However, detailed provisions do not exist.

Union of Myanmar Marine Fisheries Law, 25 April 1990

There are several restrictions relating to marine fisheries contained within the Fisheries Law. Those found guilty of violating any of the prohibitions may be liable to heavy fines and/or imprisonment. The relevance of this law to the offshore component of the project is that it places a general restriction on pollution, as follows: *“No person shall dispose of living aquatic creatures or any polluting material into the Union of Myanmar Marine Fisheries”*.

Territorial Sea and Maritime Zones Law, 1977

The Union of Myanmar has exclusive jurisdiction for the construction, maintenance and operation of offshore terminals. It also has exclusive jurisdiction to preserve and protect the marine environment, and to prevent and control marine pollution.

The Underground Water Act, 1930

The Underground Water Act, 1930 provides measures for systematic and sustainable use of underground water.

Forest Law, 1992

The Forest Law, 1992 is one of the environmental related laws in the forestry sector. The offences for extracting, moving, keeping in possession unlawfully any forest produce, including fauna and flora are liable to be punished with fine or imprisonment, or for both. For offences relating to teak trees the punishment is heavier. The Courts are empowered to confiscate all forest produce, vehicles, vessels, animals, machinery, tool and equipment in addition to the punishment for the related offence. Forest Officers are also empowered to take administrative actions in respect of forest produce seized.

Penal Code, 1961 (and extended in Public Health Law, 1972)

The Penal Code has some relevance to public health. It is considered an offence to “voluntarily corrupt or foul the water of any public spring or reservoir so as to render it less fit for the purpose for which it is ordinarily used”, or to pollute the atmosphere from smoke, fumes, noxious odours, dust particles, noise and radioactive substances.

Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law, 1994

Under the Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law, 1994, the following are considered crimes: hunting without license, breeding protected animals without permission, causing water and air pollution, poisoning water, possessing, selling, transporting or transferring wildlife or any part thereof without permission.

Conservation of Water Resources and Rivers Law, 2006

The Conservation of Water Resources and Rivers Law (2006) prohibits carrying out any actions with the aim to ruin water resources, including rivers, and causing intentional water wastage, and pollution of water resources.

Antiquities Act, 1957 (Revised 1962)

The Antiquities Act is a law that governs movable and immovable cultural heritage that have archaeological and historical value.

The Antiquities section provides stipulations for the movement of antiquities inside and outside the country, the protection and management of antiquities, the protection and restoration obligation and the compulsory acquisition right of the Director of the Burma Archaeological Survey, and penalties for violations of the above.

The Protection and Preservation of Cultural Heritage Region Law, 1998 (Revised in 2009 and Supplemented in 2011)

The Protection and Preservation of Cultural Heritage Region Law mainly supplements the Antiquities Act with provisions that more widely cover cultural heritage. Relevant excerpts are as follows:

“20. No person shall carry out any of the following in the cultural heritage region:-

- (a) destroying an ancient monument;*
- (b) wilfully altering the original ancient form and structure or original ancient workmanship of an ancient monument;*
- (c) excavating to search for antiquities;*
- (d) exploring for petroleum, natural gas, precious stones or minerals.*

21. No person shall, without prior permission granted under this Law, carry out any of the following in the cultural heritage region:-

- (a) carry out renovation and maintenance work on an ancient monument;*
- (b) carrying out archaeological excavation;*
- (c) building road, constructing bridge, irrigation canal, embankment or extending the same;*
- (d) digging well, pond, fish-breeding pond or extending the same.”*

Table 3.3 Project-Relevant Legislation in Myanmar

Sector	Relevant Laws in Myanmar
Administrative	The Territorial Sea and Maritime Zones Law, 1977
	The Emergency Provisions Act, 1950
	The Essential Supplies and Services Act, 1947
	The Police Act, 1945
	The Poisons Act, 1919
	The Explosive Substances Act, 1908
	The Yangon Police Act, 1899
	The Explosives Act, 1887
	The Penal Code, 1861 of Offences Affecting the Public Health, Safety, Convenience, Decency and Morals
	Foreign Investment Law, 2012
	The Child Law (Law No. 9/93)
	Myanmar Maternal and Child Welfare Association Law (No. 21/90).
	Myanmar Investment Commission Notification (1994)
	The Private Industrial Enterprise Law - SLORC Law No. 22/90
Agriculture and Irrigation	The Fertilizer Law, 2002
	The Plant Pest Quarantine Law, 1993, and amended in 2011
	The Pesticide Law, 1990
	The Embankment Act, 1909
	Underground Water Act, 1930
	Farmland Rules - Notification No 62/2012 (English)
	Vacant, Fallow and Virgin Lands Management Rules - Notification No. 1/2012
	Vacant, Fallow and Virgin Land Management Act - Pyidaungsu Hluttaw Law No. 10/2012
Culture	The Protection and Preservation of Cultural Heritage Region law, 1998 (Revised in 2009 and Supplemented in 2011)
	Antiquities Act, 1957 (Revised 1962)
Forestry, Environment and Natural Resources	The Protection of Wild Life, Wild Plants and Conservation of Natural Areas Law, 1994
	The Forest Law, 1992
	The Conservation of Water Resources and Rivers Law, 2006
	Burma Wild Life Protection Rules, 1941
	The Forest Department Notification No. 583/94
	ENVIRONMENTAL IMPACT ASSESSMENT RULES – DRAFT
	Environmental Conservation Law (March 2012)
	Myanmar Agenda 21
	National Environmental Policy (1994)
Public Health	The National Food Law, 1997
	The Traditional Drug Law, 1996
	The Prevention and Control of Communicable Disease Law, 1995
	The Narcotics Law, 1993
	The National Drug Law, 1992
	The Union of Myanmar Public Health Law, 1972
	Private Health Act, 2007
	The Penal Code of Offences Affecting the Public Health, Safety, Convenience, Decency and Morals (1861)
Occupational Health and Safety	Factory Act, 1951 (safe and healthy workplaces)
	Employment and Training Act 1950
Tourism	The Myanmar Hotel and Tourism Law, 1993

Sector	Relevant Laws in Myanmar
Industrial	Myanmar Special Economic Zone Law, 2011
	Dawei Special Economic Zone Law, 2011
	The Private Industrial Enterprise Law, 1990
	The Factories Act, 1951
	The Oilfield (Workers and Welfare) Act, 1951
	The Petroleum Act, 1934
	The Oilfield Act, 1918
	Employment Restriction Act (1959)
	Workmen's Compensation Act
	Shops and Establishment Act, 1951
	Leave and Holidays Act, 1951
	Minimum Wage Act 1949
	Payment of Wages Act 1936
	Social Security Act 1954
	Trade Dispute Act 1929
	Settlement of Labour Dispute Law (2012)
	Employment and Skill Development Law
Employment Statistics Act (1948)	
Water Power Act (1927)	
Fisheries, Aquaculture, and Water	The Freshwater Fisheries Law, 1991
	The Myanmar Marine Fisheries Law, 1990, amended in 1993
	The Law Relating to Aquaculture, 1989
	The Law Relating to the Fishing Rights of Foreign Fishing Vessels, 1989
	The Law Amending the Law Relating to the Fishing Rights of Foreign Fishing Vessels, 1993
	The Law Amending the Myanmar Marine Fisheries Law, 1993
	The Conservation of Water Resources and Rivers Law - SPDC Law No. 8/2006
	Territorial Sea and Maritime Zone Law-1977
	The Underground Water Act (1931)
Science and Technology	The Atomic Energy Law, 1998
	Science and Technology Development Law (Law No. 5/94, 1994)
Transportation	The Highways Law, 2000
	The Motor Vehicles Law, 1964
	The Law Amending the Motor Vehicles Law of 1964 enacted in 1989
	The Myanmar Aircraft Act, 1934
	The Inland Steam Vessels Act, 1917
	The Ports Act, 1907
	The Defile Traffic Act, 1908
	The Yangon Port Act, 1905
	The Canal Act, 1905
	The Obstruction in Fairways Act, 1881
Land Use	Land Acquisition Act, 1894
	The Towns Act, 1907
	The Village Act, 1907

National Environmental Quality (Emission) Guidelines (Drafting)

The Ministry of Environmental Conservation and Forestry (MOECAAF) is currently in the process of formulating new procedures and rules on environmental conservation and environmental quality standards (EQS). The Guidelines are largely based on International Finance Corporation (IFC) Environmental Health and Safety (EHS) Guidelines, and provide the basis for regulation and control of various environmental parameters, including noise and vibration, air emissions, and effluent discharges, from various sources.

Relevant excerpts from the guidelines are as follows:

“6. Provisions of the general and applicable industry-specific Guidelines shall be reflected in project EMP and ECC and together constitute a project’s commitment to take necessary measures to avoid, minimize and control adverse impacts to human health, safety, and the environment through reducing the total amount of emissions generation; adopting process modifications, including waste minimization to lower the load of pollutants requiring treatment; and as necessary, application of treatment techniques to further reduce the load of contaminants prior to release or discharge.

7. These Guidelines supersede any existing national guideline or standard provision relating to regulation and control of noise, air, and water emissions from activities and projects subject to the EIA Procedure.

8. As specified in Article 56 of the EIA Procedure, all projects are obliged to use, comply with and refer to applicable national guidelines or standards or international standards adopted by the Ministry. These Guidelines will henceforth be applied by the Ministry in satisfying this requirement until otherwise modified or succeeded by other guidelines or standards.

...

11. As specified in Article 95 of the EIA Procedure, projects shall engage in continuous, proactive and comprehensive self monitoring of the project and comply with applicable guidelines and standards. For purposes of these Guidelines, projects shall be responsible for the monitoring of their compliance with general and applicable industry-specific Guidelines. Projects shall be responsible for ensuring compliance at the point of compliance specified in the applicable Guidelines.

12. To demonstrate compliance with these monitoring requirements as specified in articles 97 and 98 of the EIA Procedure, projects shall submit monitoring reports to the Ministry at least every six months or more frequently as provided in the EMP and ECC. Monitoring reports shall inter alia document compliance, difficulties encountered in complying with EMP and ECC conditions, number and type of non-compliance with EMP and ECC, and monitoring data of prescribed environmental parameters as detailed in the EMP and ECC. “

A summary of environmental standards that are relevant to the Project are shown below. These standards will be used for comparison of baseline data and predicted impacts in this ESHIA.

General

Air Emissions

“Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: (i) emissions do not result in pollutant concentrations that reach or exceed ambient quality guidelines and standards, or in their absence the current World Health Organization (WHO) Air Quality Guidelines; and emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards (i.e. not exceeding 25 percent of the applicable air quality standards to allow additional, future sustainable development in the same airshed.”

Wastewater

General wastewater guidelines are presented in **Table 3.4**.

Table 3.4 *Indicative Guideline for Treated Sanitary Sewage Discharges*

Parameter	Unit	Maximum Concentration
Biological oxygen demand	mg/L	30
Chemical oxygen demand	mg/L	125
Oil and grease	mg/L	10
pH	S.U.	6-9
Total coliform bacteria	MPNa/100 ml	400b
Total nitrogen	mg/L	10
Total phosphorus	mg/L	2
Total suspended solids	mg/L	50

Noise Levels

General noise guidelines are presented in **Table 3.5**.

Table 3.5 *General Noise Level Standards*

Receptor	One Hour LAeq (dBA)	
	Daytime (07:00 – 22:00)	Nighttime (22:00 – 07:00)
Residential, institutional, educational	55	45
Industrial, commercial	70	70

Industry-Specific Standards for Thermal Power Projects

A list of standards specific to thermal power projects is shown in **Table 3.6** and **Table 3.7**.

Table 3.6 *Effluent Standards for Thermal Power*

Parameter	Unit	Guideline Value
Arsenic	mg/L	0.5
Cadmium	mg/L	0.1
Chromium (total)	mg/L	0.5
Copper	mg/L	0.5
Iron	mg/L	1
Lead	mg/L	0.5
Mercury	mg/L	0.005
Oil and grease	mg/L	10
pH	S.U.	6-9
Temperature increase ^a	°C	<3
Total residual chlorine	mg/L	0.2
Total suspended solids	mg/L	50
Zinc		1

Note: ^a Heavy metals include: Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Vanadium and Zinc

Table 3.7 *Air Emission Standards for Thermal Power (applicable to non-degraded airsheds)*

Combustion Technology/Fuel	Parameter/Guideline Values		
	Particulate Matter	Sulfur Dioxide	Nitrogen Oxides
Combustion Turbine			
Fuels other than natural gas (unit > 50 MW)	50 mg/Nm ³	Use of ≤ 1% Sulfur fuel	152 ppm
Natural gas (all turbine types; unit > 50 MW)	N/A	N/A	51 ppm
Boiler			
Liquid fuels (plant > 600 MW)	50 mg/Nm ³	200 mg/Nm ³	400 mg/Nm ³
Liquid fuels (plant 50-600 MW)	50 mg/Nm ³	900 mg/Nm ³	400 mg/Nm ³
Natural gas	N/A	N/A	240 mg/Nm ³
Other gaseous fuels	50 mg/Nm ³	400 mg/Nm ³	240 mg/Nm ³
Solid fuels (plant > 600 MW)	50 mg/Nm ³	200 mg/Nm ³	510 mg/Nm ³
Solid fuels (plant 50-600 MW)	50 mg/Nm ³	900 mg/Nm ³	510 mg/Nm ³
Reciprocating Engine			
Biofuels / gaseous fuels other than natural gas	50 mg/Nm ³	N/A	30% higher than for other fuels
Liquid fuels (plant > 300 MW)	50 mg/Nm ³	585 mg/Nm ³	740 mg/Nm ³
Liquid fuels (plant 50-300 MW)	50 mg/Nm ³	1170 mg/Nm ³	1460 mg/Nm ³
Natural gas	N/A	N/A	200 mg/Nm ³

In addition to national legislation, the Project will be undertaken to comply with a range of international standards, including the Asian Development Bank Safeguard Policy Statement, IFC Performance Standards (IFC PS), and the World Bank Guidelines. These standards are set to complement and reinforce national legislation and ensure the Project is conducted under best practices in a way that minimizes risks, impacts and ensures compliance and fair practices. The international performance standards and guidelines provide guidance on how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way, including stakeholder engagement and disclosure obligations of the client in relation to project-level activities.

In the case of its direct investments (including project and corporate finance provided through financial intermediaries), the IFC PS require its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced.

The applicable guidelines and standards for the Project are as follows:

- Asian Development Bank (ADB) Safeguard Policy Statement (2010);
- ADB's Social Protection Strategy (2001), ADB's Gender and Development Policy (2003) and ADB's Public Communication Policy (2003);
- The IFC's Performance Standards (IFC's PSs) (2012);
- IFC/World Bank Group (WBG) EHS Guidelines and WBG EHS Guidelines for Thermal Power (2007 and 2008);
- IFC's Stakeholder engagement handbook and other relevant Good Practice Notes;
- IFC's Handbook for Preparing a Resettlement Action Plan (if applicable)
- Kyoto Protocol to the UNFCCC on Climate Change (1997);
- United Nations Convention on Biological Diversity (1992);
- Basel Convention (1989);
- Ramsar Convention on Wetland (1971);
- International Union for Conservation of Nature and Natural Resources, Red List of Threatened Species (1964).

3.3.1

International Finance Corporation (IFC) and World Bank Performance Standards

The IFC updated its Sustainability Framework in January 2012. This included revising the Performance Standards; which replace the previous safeguard policies and will be used to evaluate any project seeking funding through the IFC.

The Performance Standards represent the 'policy framework' for the ESIA and sustainable social and environmental management for the Project, whereas the IFC EHS Guidelines provide guidance on general and industry best practice as well as recommended numerical limits for emissions to the atmosphere, noise, liquid and solid wastes, hazardous wastes, health and safety, and other aspects of industrial facilities and other types of development projects. The relevant IFC Performance Standards are listed in **Table 3.8** and the EHS Guidelines are discussed further in **Section 3.3.2**.

Table 3.8 IFC Performance Standards

Performance Standards	Objectives
<p>Performance Standard 1 - Assessment and Management of Environmental and Social Risks and Impacts underscores the importance of managing social and environmental performance throughout the life of a project (any business activity that is subject to assessment and management).</p>	<ul style="list-style-type: none"> • <i>Impact identification and assessment.</i> To identify and assess social and environmental impacts, both adverse and beneficial, in the project’s area of influence • <i>Mitigation.</i> To avoid, or where avoidance is not possible, minimize, mitigate, or compensate for adverse impacts on workers, affected communities, and the environment • <i>Stakeholder engagement.</i> To ensure that affected communities are appropriately engaged on issues that could potentially affect them • <i>Effective management.</i> To promote improved social and environment performance of companies through the effective use of management systems.
<p>Performance Standard 2 - Labour and Working Conditions recognizes that the pursuit of economic growth through employment creation and income generation should be balanced with protection for basic rights of workers.</p>	<ul style="list-style-type: none"> • To promote fair treatment, non-discrimination and equal opportunity of workers, and compliance with national labor and employment laws • To establish, maintain and improve the worker management relationship. • To promote compliance with national employment and labour laws. • To protect the workforce by addressing child labor and forced labor. • To promote safe and healthy working conditions, and to protect and promote the health of workers.
<p>Performance Standard 3 - Resource Efficiency and Pollution Prevention recognizes that increased industrial activity and urbanization often generate increased levels of pollution to air, water, and land that may threaten people and the environment at the local, regional, and global level.</p>	<ul style="list-style-type: none"> • To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities • To promote more sustainable use of resources, including energy and water. • To reduce project –related GHG emissions.
<p>Performance Standard 4 - Community Health, Safety and Security recognizes that project activities, equipment, and infrastructure often bring benefits to communities including employment, services, and opportunities for economic development.</p>	<ul style="list-style-type: none"> • To anticipate and avoid adverse impacts on the health and safety of the Affected Community during the project life from both routine and non routine circumstances • To ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the Affected Communities.
<p>Performance Standard 5 - Land Acquisition and Involuntary Resettlement outlines that involuntary resettlement refers both to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or means of livelihood) as a result of project-related land acquisition</p>	<ul style="list-style-type: none"> • To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs. • To avoid forced eviction • To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation and the informed participation of those affected. • To improve, or restore, the livelihoods and standards of living of displaced persons. • To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

Performance Standards	Objectives
<p>Performance Standard 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources recognizes that protecting and conserving biodiversity—the variety of life in all its forms, including genetic, species and ecosystem diversity—and its ability to change and evolve, is fundamental to sustainable development</p>	<ul style="list-style-type: none"> • To protect and conserve biodiversity • To maintain the benefits from ecosystem services • To promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities
<p>Performance Standard 7 - Indigenous People recognizes that Indigenous Peoples, as social groups with identities that are distinct from dominant groups in national societies, are often among the most marginalized and vulnerable segments of the population.</p>	<ul style="list-style-type: none"> • To ensure that the development process fosters full respect for the dignity, human rights, aspirations, cultures and natural resource-based livelihoods of Indigenous Peoples • To anticipate and avoid adverse impacts of projects on communities of Indigenous Peoples, or when avoidance is not feasible, to minimize, mitigate, or compensate for such impacts, and to provide opportunities for development benefits, in a culturally appropriate manner • To promote sustainable development benefits and opportunities for Indigenous Peoples in a culturally appropriate manner. • To establish and maintain an ongoing relationship based on Informed Consultation and Participation (ICP) with the Indigenous Peoples affected by a project throughout the life of the project • To ensure the Free, Prior and Informed Consent (FPIC) of the Affected Communities of the IPs when the circumstances described in this Performance Standard are present. • To respect and preserve the culture, knowledge and practices of Indigenous Peoples
<p>Performance Standard 8 - Cultural Heritage recognizes the importance of cultural heritage for current and future generations. Consistent with the Convention Concerning the Protection of the World Cultural and Natural Heritage, this Performance Standard aims to ensure that clients protect cultural heritage in the course of their project activities.</p>	<ul style="list-style-type: none"> • PS 8 aims to protect the irreplaceable cultural heritage and to guide clients on protecting cultural heritage in the course of their business operations. In addition, the requirements of this PS on a project’s use of cultural heritage are based in part on standards set by the Convention on Biological Diversity. PS 8 recognizes the importance of cultural heritage with an objective to: • Protect cultural heritage from the adverse impacts of project activities and support its preservation; and • Promote the equitable sharing of benefits from the use of cultural heritage in business activities. • The PS requires the project proponent to comply with relevant national law on the protection of cultural heritage, including national law implementing the host country’s obligations under the Convention Concerning the Protection of the World Cultural and Natural Heritage and other relevant international law.

3.3.2

Gap Analysis between Myanmar Legislation and IFC Performance Standards

A Gap Analysis of the existing and forthcoming Myanmar national legislation has been undertaken against the IFC Performance Standards. The review is presented below in **Table 3.9** and highlights the key gaps and the actions required in order for the Project Proponent to comply with the international guidelines ⁽¹⁾.

⁽¹⁾ Note that whilst it was the intention of this Gap Analysis to provide an estimate of costs associated with the additional actions that may be required to close out the identified gaps, it is ERM's recommendation that compliance with the applicable standards are included in the terms of reference for the forthcoming ESIA and therefore no separate additional costs will be required by the Project Proponent should these be followed. Therefore the following table excludes cost estimates at this stage

Table 3.9 Gap Analysis International Standards and Myanmar Legislation Relevant to the Project

IFC Performance Standards PS1-PS8	Myanmar Legislative & EIA Requirements (including agreed scope from EIA Scoping)	Commentary/Discussion	Gaps	Further Action/Recommendations
<p>Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts</p>	<p><i>ENVIRONMENTAL IMPACT ASSESSMENT RULES – DRAFT</i> <i>Environmental Conservation Law 2012</i> <i>National Environmental Policy (1994)</i> <i>Myanmar Agenda 21</i> <i>Land Acquisition Act, 1894</i> <i>The Forest Law, 1992</i> <i>The Plant Pest Quarantine Law, 1993</i> <i>The Pesticide Law, 1990</i> <i>The Fertilizer Law, 2002</i> <i>The Underground Water Act (1931)</i> <i>The Protection of Wild Life, Wild Plants and Conservation of Natural Areas Law, 1994</i> <i>Factory Act, 1951 (safe and healthy workplaces)</i> <i>Workmen’s Compensation Act</i> <i>Minimum Wage Act 1949</i> <i>Payment of Wages Act 1936</i> <i>Social Security Act 1954</i> <i>The Freshwater Fisheries Law, 1991</i> <i>The Myanmar Marine Fisheries Law, 1990</i> <i>The Conservation of Water Resources and Rivers Law - SPDC Law No. 8/2006</i></p>	<p>With the <i>Environmental Conservation Law only recently enacted</i>, there is the potential that assessment of environmental risks are not being comprehensively regulated under Myanmar local legislation. This is further compounded by the fact that the EIA Rules are currently in draft form and therefore there is no enforceable legislation for undertaking assessment of development projects.</p> <p>Several separate pieces of legislation regulate management of environmental and social risks though do not specifically require proper assessment. For example, <i>The Forest Law 1992</i> has incorporated Indigenous Peoples into its management policies and is a step towards recognition.</p> <p>Under <i>The Protection of Wild Life, Wild Plants and Conservation of Natural Areas Law, 1994</i> conservation of in-situ wild flora and fauna is implemented. This piece of legislation aims to protect endangered species and their natural habitats. In doing so, it provides for some national legislation addressing environmental impacts but not the assessment process.</p> <p>The majority of legislation current legislation is concerned with 'management' of environmental impacts and does not specifically cover requirements regarding assessment of impacts prior to operating and does not yet include quantitative values for assessment. Similarly, social impacts are not specifically addressed in implemented legislation. However, local legislation does exist to regulate working conditions, wages, OH&S and social security etc. Though given the social and governance framework the regulation of such legislation is an area for concern. The EIA processes for public consultation is at the discretion of those parties identified/advised by MOECAP and as such may fail to include the entirety of social discourse for identification of social issues.</p> <p>The Myanmar Agenda 21 derived from the Kyoto Protocol aims to facilitate the incorporation of environmental considerations in the development process of the economic and social sectors and as such incorporates aspects of the EIA phase and should be promoted to encourage sustainable development of projects and encouraging best practice in Myanmar’s industry.</p>	<ol style="list-style-type: none"> 1. Gaps exist in enforceable local legislation requiring EIA as per the administering law <i>Environmental Conservation Law 2012</i>, due to the <i>EIA Rules</i> regulations being still in draft. This will be rectified when the draft regulations are enacted/approved; however there is no date set for enactment/approval of the draft regulations. 2. Gaps exist in enforceable local legislation for assessment of social impacts for projects at an EIA stage. Primarily due to EIA assessment rules still in draft form and as per Article 7 the <i>EIA Rules (Draft)</i> do not prescriptively cover social impacts/assessment 3. Current legislation also does not recognize indigenous peoples and therefore does not provide additional measures to protect or consider impacts and assessments on their livelihood. The Ministry of Forestry does have a history of including indigenous parties in stakeholder engagement and has included in its Forest Policy public awareness an imperative, in which it includes participation with indigenous parties. 	<p>The Equator Principles aligned with the IFC Performance Standards provide comprehensive requirements for the assessment of environmental and social impacts and should be used as standard guide for social impact assessment.</p> <p>The Project Proponent should use a combination of local and international standards where gaps exist, as EIA rules are still in draft form.</p> <p>Social legislation and engagement/consultation activities present the largest gaps; recommend thorough use of international standards over local obligations.</p>

IFC Performance Standards PS1-PS8	Myanmar Legislative & EIA Requirements (including agreed scope from EIA Scoping)	Commentary/Discussion	Gaps	Further Action/Recommendations
Performance Standard 2: Labour and Working Conditions	<p><i>Factories Act, 1951</i> <i>Employment Restriction Act (1959)</i> <i>Employment Statistics Act (1948)</i> <i>Employment and Skill Development Law (2013)</i> <i>Workmen's Compensation Act (1923)</i> <i>Labour Organisation Law (2011)</i> <i>Leave and Holidays Act, 1951</i> <i>Minimum Wage Law (2013)</i> <i>Payment of Wages Act (1936)</i> <i>Workmen's Compensation Act (1923)</i> <i>Social Security Law (2012)</i> <i>Settlement of Labour Dispute Law (2012)</i></p>	<p>Significant national legislation exists in coverage of labour and working conditions within the Myanmar legal framework. Occupational Health and Safety (OH&S) and endorsement of working conditions and terms of employment are addressed in legislation from the <i>Workman's Compensation Act, Leave and Holidays Act, Payment of Wages Act, Social Security Act</i> and the <i>Factory Act</i> providing for safe and healthy workplaces.</p> <p>Current legislation however has limited mechanisms to address child labour specifically along with non-discrimination and equal opportunity.</p>	<ol style="list-style-type: none"> 1. Main gaps exist in legislation addressing child labour, non-discrimination and equal opportunity. Child labour is not specifically prohibited, provisions set out the 'right to work' of a child - person of the age of 16. Equal opportunity and other legislation were repealed under the <i>Law Defining the Fundamental Rights and Responsibilities of the People's Workers (Revolutionary Council Law No. 6 of 1964)</i>. 2. Possible gaps with the regulation and enforcement of existing legislation. 	<p>Labour conditions under legislation provide basic principles; though do not include much protection and rights afforded to the worker, including gaps regarding child labour. Recommend employing IFC PS and Equator Principles to fill the gaps in national legislation. The most stringent standards should be applied.</p>
Performance Standard 3: Resource Efficiency and Pollution Prevention	<p><i>Water Power Act (1927)</i> <i>The Conservation of Water Resources and Rivers Law - SPDC Law No. 8/2006</i> <i>The Underground Water Act (1931)</i> <i>The Motor Vehicles Law, 1964</i></p>	<p>Legislation relevant to resource efficiency and pollution prevention is limited to management of water and management of pollution within the transport industry.</p> <p>Air pollution is regulated under the <i>Motor Vehicle Law</i> and <i>Motor Vehicle Rules</i>, with a Practicing Standard of Road Standards. However pollution control in a more general sense, encompassing reduction and management strategies has primarily fallen under the jurisdiction of the <i>Environmental Policy 1994</i> which is still in its infancy.</p> <p>The Myanmar Agenda 21 operates such that it aims to facilitate the incorporation of environmental considerations in the development process of the economic and social sectors and as such incorporates aspects of an EIA process; though the enforcement of this is uncertain. Energy efficiency is addressed in the National Strategy for Sustainable Development (NSDS) through one of its primary goals of '<i>Sustainable Management of Natural Resources</i>.'</p>	<ol style="list-style-type: none"> 1. Gaps exist in specific levels or quantitative limits set in legislation for pollution control, waste and inclusion of pollution and waste reduction standards for industry. 2. Energy efficiency gaps exist due to a lack of enforceable legislation committing to energy efficiency standards. 3. Gaps exist in wastewater treatment and waste management or control standards, as well as legislation and greenhouse gas emissions. 	<p>Several high level strategies exist, though the legal requirements of these are undetermined to be enforceable or obligatory.</p> <p>Specific limits on pollution control or waste standards (including wastewater/sewage/effluent etc.) are not enforced, recommend complying with IFC EHS guidelines for specific limits.</p>
Performance Standard 4: Community Health and Safety	<p><i>The National Food Law, 1997</i> <i>The Traditional Drug Law, 1996</i> <i>The Prevention and Control of Communicable Disease Law, 1995</i> <i>The Narcotics Law, 1993</i> <i>The National Drug Law, 1992</i> <i>The Union of Myanmar Public Health Law, 1972</i> <i>Private Health Act, 2007</i> <i>The Penal Code of Offences Affecting the Public Health, Safety, Convenience, Decency and Morals (1861)</i> <i>The Conservation of Water Resources and Rivers Law - SPDC Law No. 8/2006</i> <i>The Highways Law, 2000</i> <i>The Motor Vehicles Law, 1964</i> <i>(The Law Amending the Motor Vehicles Law of 1964 enacted in 1989)</i> <i>The Ports Act, 1907</i> <i>The Defile Traffic Act, 1908</i> <i>The Underground Water Act (1931)</i> <i>The Protection of Wild Life, Wild Plants and Conservation of Natural Areas Law, 1994</i> <i>The Forest Law, 1992</i></p>	<p>Community Health and Safety is administered under a wide range of legislation, with specific emphasis on food & drug legislation, transport, unsafe material and negative environmental/agriculture practices. Gaps exist with design safety and hazardous materials management.</p>	<ol style="list-style-type: none"> 1. Gaps in hazardous material/waste legislation 2. Design and wider community health legislation exist, posing possible implications with impact assessment and design/project planning 	<p>Legislation governing waste in Myanmar is limited, as are requirements for consideration of wider community health and safety.</p> <p>IFC EHS, PS, Equator Principles provide greater consideration for community health assessment and management. Recommend waste management principles of IFC and limits in IFS EHS Guidelines adopted for specific standards/targets.</p>

IFC Performance Standards PS1-PS8	Myanmar Legislative & EIA Requirements (including agreed scope from EIA Scoping)	Commentary/Discussion	Gaps	Further Action/Recommendations
	<p><i>The Plant Pest Quarantine Law, 1993</i> <i>The Pesticide Law, 1990</i> <i>The Fertilizer Law, 2002</i> <i>The Explosives Act, 1887</i> <i>The Explosive Substances Act, 1908</i> <i>The Emergency Provisions Act, 1950</i></p>			
<p>Performance Standard 5: Land Acquisition and Involuntary Resettlement</p>	<p><i>Land Acquisition Act (1894)</i> <i>Towns Act (1907) (as amended)</i> <i>Village Act (1908) (as amended)</i> <i>Protection of the Right of Cultivation Act (1963)</i> <i>Tenancy Law (1963) and Tenancy (Amendment) Law (1965)</i></p>	<p>Currently the Myanmar Land Acquisition Act provides for state involvement and acquisition of land and provides little to facilitate prior ownership or indigenous peoples.</p> <p>Compensation provides for acquisition of property (market value plus 15%), though provides little for resettlement and economic displacement. Project design and pre-planning consultation is not administered under the associated acts and will, when finalized, be administered under the EIA legislation. Current legislation does not include resettlement costs, including physical, cultural and economic considerations.</p>	<p>1. Gaps exist in compensation for physical and economic displacement</p> <p>2. Gaps exist in requirement for resettlement planning, assessment or compensation on a resettlement basis.</p>	<p>Compensation scheme provides for physically displacement only. Recommend complying with IFC/ Equator Principles standards for inclusion of economic displacement. Resettlement impacts and costs are not legally regulated. recommend complying with IFC/WBG resettlement handbook and IFC/ Equator Principles guides</p>
<p>Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p><i>The Forest Law, 1992</i> <i>The Protection of Wild Life, Wild Plants and Conservation of Natural Areas Law, 1994</i> <i>Burma Wild Life Protection Rules, 1941</i> <i>The Protection of Wildlife and Conservation of Natural Areas Law - SLORC Law No. 6/94</i> <i>The Forest Department Notification No. 583/94</i> <i>Environmental Conservation Law, 2012</i> <i>Myanmar Agenda 21</i> <i>National Environmental Policy (1994)</i> <i>The Conservation of Water Resources and Rivers Law, 2006</i> <i>The Plant Pest Quarantine Law, 1993</i> <i>The Freshwater Fisheries Law, 1991</i> <i>The Myanmar Marine Fisheries Law, 1990</i> <i>The Conservation of Water Resources and Rivers Law - SPDC Law No. 8/2006</i></p>	<p>With the recently enacted <i>Environmental Conservation Law 2012</i> Myanmar has implemented an overruling legislative framework for biodiversity conservation in Myanmar. Myanmar has a long history of conservation and wildlife protection and has a total of 58 protected areas, however the regulation and management of these areas is at times inadequate.</p> <p>As with many developing nations, Myanmar has specific legislation covering conservation of fishing resources, Myanmar's legislation also includes the protection of riverine areas. Current legislation does not differentiate between natural and modified habitat, though it does include critical and legally protected areas. Myanmar has a specific invasive alien species bill. Current legislation does not outwardly enforce supply chain management, through a lack of standards. <i>Environmental Conservation Law</i> and the EIA Rules do categorize projects into determining severity through requiring an IEE or EIA.</p>	<p>1. Gaps exist in specific environmental and social standards.</p> <p>2. EIA rules are still in draft and therefore prescribed management plans are restricted to specific commitments in various separate legislation until it is enacted.</p> <p>3. Gaps in supply chain management & requirements in legislation.</p>	<p>Specific standards and requirements of management plans are not legislated.</p> <p>Recommend compliance with IFC/EP standards as well as local legislation. Supply chain management to be in compliance with IFC performance standards.</p>

IFC Performance Standards PS1-PS8	Myanmar Legislative & EIA Requirements (including agreed scope from EIA Scoping)	Commentary/Discussion	Gaps	Further Action/Recommendations
Performance Standard 7: Indigenous Peoples	<p><i>Land Acquisition Act (1894)</i> <i>Towns Act (1907) (as amended)</i> <i>Village Act (1908) (as amended)</i> <i>Protection of the Right of Cultivation Act (1963)</i> <i>Tenancy Law (1963) and Tenancy (Amendment) Law (1965)</i></p>	<p>The aforementioned acts do not provide for allowances of Indigenous Peoples or traditional ownership claims, nor recognize or provide regulation of peoples who fall outside the jurisdiction of these acts. However it should be noted that some more recent acts and ministries have included consideration for IPs. Furthermore, EIA processes for public consultation is at the discretion of those parties identified/advised by MOECAAF, as well as not mentioning IPs.</p> <p>Drafted EIA laws do not include provision for IPs or impacts on traditional ownership and relocation. The <i>Lands Acquisition Act</i> does provide a basic framework for compensation of land and property. The <i>Protection and Preservation of Cultural Heritage Region law, 1998</i> includes requirements of cultural heritage protection which will include cultural heritage sensitive to indigenous peoples.</p>	<ol style="list-style-type: none"> Gaps exist in legislation protecting IPs Gaps exist in public participation and consultation under drafted EIA laws Gaps exist in mitigation and relocation/resettlement legislation <p><i>The EIA procedure does not address specific matters in relation to resettlement or in relation to Projects that may have an Adverse Impact on Indigenous People. Projects involving resettlement or potentially affecting Indigenous People shall additionally comply with separate procedures issued by responsible ministries, and in the absence of such procedures all such Projects shall adhere to international best practice on Involuntary Resettlement and Indigenous People.</i></p>	<p>Recommend compliance with IFC/ Equator Principles standards for IPs and consultation process as a lack of meaningful local legislation or obligations currently exist.</p>
Performance Standard 8: Cultural Heritage	<p><i>The Protection and Preservation of Cultural Heritage Region law, 1998</i></p>	<p>Cultural heritage legislation is administered under <i>The Protection and Preservation of Cultural Heritage Region law, 1998</i>. This primarily covers protection of existing sites and does not provide requirements for assessment or surveying of potential sites prior to activity nor are there specific requirements for 'chance find' procedures. Similarly cultural heritage legislation does not include consultation services though it does prescribe prohibitions against the removal of cultural heritage items.</p>	<ol style="list-style-type: none"> Gaps exist in legislation requiring inspections and surveys to identify potential undocumented cultural heritage sites and chance find procedures Current legislation does not define requirements for consultation and project design around cultural heritage sites and sensitivities. 	<p>No requirement for pre-survey under local legislation. Recommend adoption of IFC/ Equator Principles for impact assessment of cultural heritage. Local legislation does administer management of existing sites, if identified to be of relevance to project.</p>

This review has demonstrated that there are several gaps between the existing national regulatory framework and the applicable international standards. These include:

1. Assessment and Management of Environmental and Social Risks and Impacts
 - ii. Gaps exist in enforceable local legislation requiring EIA as per the administering law *Environmental Conservation Law 2012*, due to the Environmental Impact Assessment Rules regulations being still in draft. This should be rectified when the draft regulations are enacted/ approved.
 - iii. Gaps exist in enforceable local legislation for assessment of social impacts for projects at an EIA stage, as EIA assessment rules are draft. Furthermore, the EIA assessment rules do not prescriptively cover social impacts/assessment.
 - iv. Current legislation also does not recognize Indigenous Peoples and therefore does not provide additional measures to protect or consider impacts and assessments on their livelihood.
2. Labour and Working Conditions
 - i. The main gaps exist in legislation addressing child labour, non-discrimination and equal opportunity. Child labour is not specifically prohibited, provisions set out the 'right to work' of a child - person of the age of 16. Equal opportunity and other legislation were repealed under the Law Defining the Fundamental Rights and Responsibilities of the People's Workers (Revolutionary Council Law No. 6 of 1964).
 - ii. Possible gaps present with the regulation and enforcement of existing legislation.
3. Resource Efficiency and Pollution Prevention
 - i. Gaps exist in specific levels or quantitative limits set in legislation for pollution control, waste and inclusion of pollution and waste reduction standards for industry.
 - ii. Energy efficiency gaps exist due to a lack of enforceable legislation committing to energy efficiency standards.
 - iii. Gaps exist in wastewater treatment and waste management or control standards, as well as legislation and greenhouse gas emissions.
4. Community Health and Safety
 - i. Gaps in hazardous material/waste legislation.
 - ii. Design and wider community health legislation exist, posing possible implications with impact assessment and design/project planning.

5. Land Acquisition and Involuntary Resettlement
 - i. Gaps exist in compensation for physical and economic displacement.
 - ii. Gaps exist in requirement for resettlement planning, assessment or compensation on a resettlement basis.

6. Biodiversity Conservation and Sustainable Management of Living Natural Resources
 - i. Gaps exist in specific environmental and social standards.
 - ii. EIA rules are still in draft and therefore prescribed management plans are restricted to specific commitments in various separate pieces of legislation until it is enacted.
 - iii. Gaps in supply chain management & requirements in legislation.

7. Indigenous Peoples
 - i. Gaps exist in legislation protecting IPs.
 - ii. Gaps exist in public participation and consultation under drafted EIA laws.
 - iii. Gaps exist in mitigation and relocation/resettlement legislation.

8. Cultural Heritage
 - i. Gaps exist in legislation requiring inspections and surveys to identify potential undocumented cultural heritage sites and chance find procedures.
 - ii. Current legislation does not define requirements for consultation and project design around cultural heritage sites and sensitivities.

3.3.3

International Finance Corporation (IFC)/World Bank Environmental, Health, and Safety (EHS) Guidelines

The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets, with an appropriate timetable for achieving them. The applicability of the EHS Guidelines should be tailored to the hazards and risks established for each project on the basis of the results of an environmental assessment in which site-specific variables, such as host country context, assimilative capacity of the environment, and other project factors, are taken into account. The applicability of specific technical recommendations should be based on the professional opinion of qualified and experienced persons. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent.

Due to the technical nature of the standards, the limits and levels are not included here in the regulatory review. However the standards, where applicable, will be assessed and complied with as per the technical requirements set out in the original document.

Applicable IFC General EHS Guidelines are shown in **Table 3.10** and IFC/World Bank EHS Guidelines for Thermal Plants are shown in **Table 3.11**.

Table 3.10 *Applicable IFC General EHS Guidelines*

Applicable IFC EHS Guidelines
General Environmental Guidelines
1. Environment
1.1 Air Emissions and Ambient Air Quality
1.2 Energy Conservation
1.3 Wastewater and Ambient Water Quality
1.4 Water Conservation
1.5 Hazardous Materials Management
1.6 Waste Management
1.7 Noise
1.8 Contaminated Land
General Occupational Health and Safety Guidelines
2. Occupational Health and Safety
2.1 General Facility and Design and Operation
2.2 Communications and Training
2.3 Physical Hazards
2.4 Chemical Hazards
2.5 Biological Hazards
2.6 Radiological Hazards
2.7 Personal Protective Equipment (PPE)
2.8 Special Hazards Environments
2.9 Monitoring
General Community Health and Safety
3.1 Water Quality and Availability
3.2 Structural Safety and Project Infrastructure
3.3 Life and Fire Safety (L&FS)
3.4 Traffic Safety
3.5 Transport of Hazardous Materials
3.6 Disease Prevention
3.7 Emergency Preparedness and Response
General Construction and Demolition Guidelines
4.1 Environment
4.2 Occupational Health and Safety
4.3 Community Health and Safety
Sectors Specific EHS Guidelines
EHS Guidelines for Thermal Power Plants

Where different standards are prescribed by the different agencies, the most stringent of the national and international standards will apply to the Project:

“When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent. If less stringent levels or measures than those provided in these EHS Guidelines are appropriate, in view of specific project circumstances, a full and detailed justification for any proposed alternatives is needed as part of the site-specific environmental assessment. This justification should demonstrate that the choice for any alternate performance levels is protective of human health and the environment.” (IFC General EHS Guidelines, page 1).

In general, the IFC's EHS Guidelines are the more comprehensive and stringent. Compliance with national standards is always required. It should be noted that the IFC's EHS Guidelines are now under revision and the first batch of revised guidelines (including the General EHS Guidelines), will tentatively be finalised in 2016.

3.3.4 *Projects Located in Degraded Airsheds*

The IFC's General EHS Guidelines state that *'Facilities or projects located within poor quality airsheds should ensure that any increase in pollution levels is as small as feasible, and amounts to a fraction of the applicable short-term and annual average air quality guidelines or standards as established in the project-specific environmental assessment. Suitable mitigation measures may also include the relocation of significant sources of emissions outside the airshed in question, use of cleaner fuels or technologies, application of comprehensive pollution control measures, offset activities at installations controlled by the project sponsor or other facilities within the same airshed, and buy-down of emissions within the same airshed. Specific provisions for minimizing emissions and their impacts in poor air quality airsheds should be established on a project-by-project or industry-specific basis. Offset provisions outside the immediate control of the project sponsor or buy-downs should be monitored and enforced by the local agency responsible for granting and monitoring emission permits. Such provisions should be in place prior to final commissioning of the facility / project.'* (IFC General EHS Guidelines, page 5).

Table 3.11 IFC/World Bank EHS Guidelines for Thermal Power Plants

EHS Guidelines for Thermal Power Plants	
1.0	Industry-Specific Impacts and Management
1.1	Environment
	<ul style="list-style-type: none"> - Air emissions - Effluents - Solid wastes - Hazardous Materials and Oil - Noise
1.2	Occupational Health and Safety (OH&S)
	<ul style="list-style-type: none"> - Non-ionizing radiation - Heat - Noise - Confined Spaces - Electrical Hazards - Fire and Explosion Hazards - Chemical Hazards - Dust
1.3	Community Health and Safety
	<ul style="list-style-type: none"> - Water consumption - Traffic Safety
2.0	Performance Indicators and Monitoring
2.1	Environment
	<ul style="list-style-type: none"> - Emission and Effluent Guidelines - Environmental Monitoring
2.2	Occupational Health and Safety (OH&S)
	<ul style="list-style-type: none"> - OH&S Guidelines - Accident and Fatality Rates - OH&S Monitoring

Source: Environmental, Health and Safety Guidelines for Thermal Power Plants ⁽¹⁾

3.3.5 Asian Development Bank Safeguard Policy Statement (2010)

The ADB’s Safeguard Policy Framework are operational policies that seek to avoid, minimize or mitigate adverse environmental and social impacts, including protecting the rights of those likely to be affected or marginalized by the development process. ADB’s safeguard policy framework consists of three (3) operational policies on the environment, 9 (nine) policies on Indigenous Peoples, and involuntary resettlement (**Table 3.12**). All three safeguard policies involve a structured process of impact assessment, planning, and mitigation to address the adverse effects of projects throughout the project cycle. The safeguard policies require that (i) impacts are identified and assessed early in the project cycle; (ii) plans to avoid, minimize, mitigate, or compensate for the potential adverse impacts are developed and implemented; and (iii) affected people are informed and consulted during project preparation and implementation. The policies apply to all ADB-financed projects, including private sector operations, and to all project components.

⁽¹⁾ Environmental, Health and Safety Guidelines for Thermal Power Plants, 2008, International Finance Corporation, World Bank Group

A basic principle of the three (3) existing safeguard policies is that implementation of the provisions of the policies is the responsibility of the borrower/client. Borrowers/clients are required to undertake social and environmental assessments, carry out consultations with affected people and communities, prepare and implement safeguard plans, monitor the implementation of these plans, and prepare and submit monitoring reports.

Table 3.12 Safeguard Policy Statement (Safeguards Requirements 1-3)

Applicable ADB Safeguard Policy Statement

Safeguard Requirements 1: Environment

Outlines the requirements that borrowers/clients are required to meet when delivering environmental safeguards for projects supported by the Asian Development Bank (ADB). It discusses the objectives and scope of application, and underscores the requirements for undertaking the environmental assessment process. The applicability of particular requirements is established through the environmental assessment process and compliance with the requirements is achieved through implementation of environmental management plans agreed to by ADB and the borrower/client.

1. Environmental Assessment	The borrower/client will identify potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders, including affected people and concerned NGOs. If potentially adverse environmental impacts and risks are identified, the borrower/client will undertake an environmental assessment as early as possible in the project cycle. The assessment process will be based on current information, including an accurate project description, and appropriate environmental and social baseline data. Impacts and risks will be analyzed in the context of the project's area of influence.
2. Environmental Planning and Management	The borrower/client will prepare an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Where impacts and risks cannot be avoided or prevented, mitigation measures and actions will be identified so that the project is designed, constructed, and operated in compliance with applicable laws and regulations and meets the requirements specified in these standards.
3. Information Disclosure	The borrower/client will submit to ADB the following documents for disclosure on ADB's website: (i) a draft full EIA (including the draft EMP) at least 120 days prior to ADB Board consideration, and/or environmental assessment and review frameworks before project appraisal, where applicable; (ii) the final EIA/IEE; (iii) a new or updated EIA/IEE and corrective action plan prepared during project implementation, if any; and (iv) the environmental monitoring reports.
4. Consultation and Participation	The borrower/client will carry out meaningful consultation with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation. Consultation will be carried out in a manner commensurate with the impacts on affected communities. The consultation process and its results are to be documented and reflected in the environmental assessment report.
5. Grievances Redress Mechanism	The borrower/client will establish a mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's environmental performance. The grievance mechanism should be scaled to the risks and adverse impacts of the project.
6. Monitoring and Reporting	The borrower/client will monitor and measure the progress of implementation of the EMP. The extent of monitoring activities will be commensurate with the project's risks and impacts. In addition to recording information to track performance, the borrower/client will undertake inspections to verify compliance with the EMP and progress toward the expected outcomes. The borrower/client will document monitoring results, identify the necessary corrective actions, and reflect them in a corrective action plan. The borrower/client will submit at least semi-annual monitoring reports during construction for projects likely to have significant adverse environmental impacts, and quarterly monitoring reports for highly complex and sensitive projects. For projects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis.

Applicable ADB Safeguard Policy Statement

7. Unanticipated Environmental Impacts	Where unanticipated environmental impacts become apparent during project implementation, the borrower/client will update the environmental assessment and EMP or prepare a new environmental assessment and EMP to assess the potential impacts, evaluate the alternatives, and outline mitigation measures and resources to address those impacts.	
8. Biodiversity Conservation and Sustainable Natural Resource Management	The borrower/client will assess the significance of project impacts and risks on biodiversity and natural resources as an integral part of the environmental assessment process. The assessment will focus on the major threats to biodiversity, which include destruction of habitat and introduction of invasive alien species, and on the use of natural resources in an unsustainable manner. The borrower/client will need to identify measures to avoid, minimize, or mitigate potentially adverse impacts and risks and, as a last resort, propose compensatory measures, such as biodiversity offsets, to achieve no net loss or a net gain of the affected biodiversity. The standards include specific guidelines for assessment of the following habitats:	
	<i>a. Modified Habitats</i> <i>b. Natural Habitats</i> <i>c. Critical Habitats</i>	<i>d. Legally Protected Areas</i> <i>e. Invasive Alien Species</i> <i>f. Management and Use of Renewable Natural Resources</i>
9. Pollution Prevention and Abatement	During the design, construction, and operation of the project the borrower/client will apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group’s Environment, Health and Safety Guidelines; as mentioned in (Table 5.2). The borrower/client will avoid, or where avoidance is impossible, will minimize or control the intensity or load of pollutant emission and discharge. In addition the borrower/client will examine and incorporate in its operations resource conservation and energy efficiency measures consistent with the principles of cleaner production. Pollution prevention includes assessment of the following:	
	<i>a. Pollution Prevention, Resource Conservation and Energy Efficiency</i> <i>b. Wastes</i> <i>c. Hazardous Materials</i>	<i>d. Pesticide Use and Management</i> <i>e. Greenhouse Gas Emissions</i>
10. Health and Safety	<p>The borrower/client will provide workers with a safe and healthy working environment, taking into account risks inherent to the particular sector and specific classes of hazards in the borrower’s/client’s work areas, including physical, chemical, biological, and radiological hazards. The borrower/client will take steps to prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work. These include specific assessment of; a) OH&S and, b) Community Health and Safety. The borrower/client will apply preventive and protective measures consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group’s Environment, Health and Safety Guidelines.</p> <p>The borrower/client will identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts.</p>	
11. Physical Cultural Resources	The borrower/client is responsible for siting and designing the project to avoid significant damage to physical cultural resources. When a project may affect physical cultural resources, the borrower/client will consult with affected communities who use, or have used them within living memory, for long-standing cultural purposes to identify physical cultural resources of importance and to incorporate the views of the affected communities on such resources into the borrower’s/client’s decision making process.	

Applicable ADB Safeguard Policy Statement

Safeguard Requirements 2: Involuntary Resettlement

Safeguard Requirements 2 outlines the requirements that borrowers/clients are required to meet in delivering involuntary resettlement safeguards to projects supported by the Asian Development Bank (ADB). The objectives are to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons¹ in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups. The requirements apply to all ADB-financed and/or ADB-administered sovereign and non-sovereign projects, and their components regardless of the source of financing, including investment projects funded by a loan; and/or a grant; and/or other means, such as equity and/or guarantees (hereafter broadly referred to as projects).

1. Compensations, Assistance and Benefits for Displaced Persons	The borrower/client will provide adequate and appropriate replacement land and structures or cash compensation at full replacement cost for lost land and structures, adequate compensation for partially damaged structures, and relocation assistance, if applicable. Preference will be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. These strategies may include resettlement on public land, or on private land acquired or purchased for resettlement. Whenever replacement land is offered, displaced persons are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. The rate of compensation for acquired housing, land and other assets will be calculated at full replacement costs. In the case of economically displaced persons, regardless of whether or not they are physically displaced, the borrower/client will promptly compensate for the loss of income or livelihood sources at full replacement cost.
2. Social Impact Assessment	The borrower/client will conduct socioeconomic survey(s) and a census, with appropriate socioeconomic baseline data to identify all persons who will be displaced by the project and to assess the project's socioeconomic impacts on them. For this purpose, normally a cut-off date will be established by the host government procedures. In the absence of such procedures, the borrower/client will establish a cut-off date for eligibility. Information regarding the cut-off date will be documented and disseminated throughout the project area.
3. Resettlement Planning	The borrower/client will prepare a resettlement plan, if the proposed project will have involuntary resettlement impacts. The objective of a resettlement plan is to ensure that livelihoods and standards of living of displaced persons are improved, or at least restored to pre-project (physical and/or economic) levels and that the standards of living of the displaced poor and other vulnerable groups are improved, not merely restored, by providing adequate housing, security of land tenure and steady income and livelihood sources.
4. Negotiated Land Acquisition	Safeguard Requirements 2 does not apply to negotiated settlements, unless expropriation would result upon the failure of negotiations. Negotiated settlements help avoid expropriation and eliminate the need to use governmental authority to remove people forcibly. The borrower/client is encouraged to acquire land and other assets through a negotiated settlement wherever possible, based on meaningful consultation with affected persons, including those without legal title to assets.
5. Information Disclosure	The borrower/client will submit the following documents to ADB for disclosure on ADB's website: (i) a draft resettlement plan and/or resettlement framework endorsed by the borrower/client before project appraisal; (ii) the final resettlement plan endorsed by the borrower/client after the census of affected persons has been completed; (iii) a new resettlement plan or an updated resettlement plan, and a corrective action plan prepared during project implementation, if any; and (iv) the resettlement monitoring reports.
6. Consultation and Participation	The borrower/client will conduct meaningful consultation with affected persons, their host communities, and civil society for every project and subproject identified as having involuntary resettlement impacts.
7. Grievance Redress Mechanism	The borrower/client will establish a mechanism to receive and facilitate the resolution of affected persons' concerns and grievances about physical and economic displacement and other project impacts, paying particular attention to the impacts on vulnerable groups. The grievance redress mechanism should be scaled to the risks and adverse impacts of the project. It should address affected persons' concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to the affected persons at no costs and without retribution.

Applicable ADB Safeguard Policy Statement

8. Monitoring and Reporting	The borrower/client will monitor and measure the progress of implementation of the resettlement plan. The extent of monitoring activities will be commensurate with the project's risks and impacts. The borrower/client will prepare semi-annual monitoring reports that describe the progress of the implementation of resettlement activities and any compliance issues and corrective actions. These reports will closely follow the involuntary resettlement monitoring indicators agreed at the time of resettlement plan approval.
9. Unanticipated Impacts	If unanticipated involuntary resettlement impacts are found during project implementation, the borrower/client will conduct a social impact assessment and update the resettlement plan or formulate a new resettlement plan covering all applicable requirements specified in this document.
10. Special Considerations for Indigenous Peoples	The borrower/client will explore to the maximum extent possible alternative project designs to avoid physical relocation of Indigenous Peoples that will result in adverse impacts on their identity, culture, and customary livelihoods. If avoidance is impossible, in consultation with ADB, a combined Indigenous Peoples plan and resettlement plan could be formulated to address both involuntary resettlement and Indigenous Peoples issues. Such a combined plan will also meet all relevant requirements specified under Safeguard Requirements 3.

Safeguard Requirements 3: Indigenous Peoples

Safeguard Requirements 3 outlines the requirements that borrowers/clients are required to meet in delivering Indigenous Peoples safeguards to projects supported by ADB. The objective is to design and implement projects in a way that fosters full respect for Indigenous Peoples' identity, dignity, human rights, livelihood systems, and cultural uniqueness as defined by the Indigenous Peoples themselves so that they (i) receive culturally appropriate social and economic benefits, (ii) do not suffer adverse impacts as a result of projects, and (iii) can participate actively in projects that affect them. The requirements apply to all ADB-financed and/or ADB-administered sovereign and non-sovereign projects, and their components regardless of the source of financing, including investment projects funded by a loan; and/or a grant; and/or other means, such as equity and/or guarantees (hereafter broadly referred to as projects). The requirements also cover actions conducted by the borrower/client in anticipation of ADB projects.

1. Consultation and Participation	The borrower/client will undertake meaningful consultation with affected Indigenous Peoples to ensure their informed participation. To carry out meaningful consultation with affected Indigenous Peoples, the borrower/client will establish a context-specific strategy for inclusive and participatory consultation, including approaches of identifying appropriate Indigenous Peoples representatives, and consultation methods appropriate to the social and cultural values of the affected Indigenous Peoples communities. The borrower/client will pay special attention to the concerns of indigenous women and youth.
2. Social Impact Assessment	The level of detail and comprehensiveness of the SIA will be proportional to the complexity of the proposed project and commensurate with the nature and scale of the proposed project's potential effects on Indigenous Peoples, whether positive or negative.
3. Indigenous Peoples Planning	If the screening and SIA indicate that the proposed project will have impacts, positive and/or negative, on Indigenous Peoples, the borrower/client will prepare an IPP in the context of the SIA and through meaningful consultation with the affected Indigenous Peoples communities.
4. Information Disclosure	The borrower/client will submit to ADB the following documents to disclose on ADB's website: <i>(i) a draft IPP and/or Indigenous Peoples planning framework, including the social impact assessment, endorsed by the borrower/client, before appraisal;</i> <i>(ii) the final IPP upon completion;</i> <i>(iii) a new or updated IPP and a corrective action plan prepared during implementation, if any; and</i> <i>(iv) the monitoring reports.</i>
5. Grievance Redress Mechanism	The borrower/client will establish a mechanism to receive and facilitate resolution of the affected Indigenous Peoples communities' concerns, complaints, and grievances. The grievance mechanism will be scaled to the impacts of the project. It should address concerns and complaints promptly, using an understandable and transparent process that is culturally appropriate, gender responsive, and accessible to the affected Indigenous Peoples communities at no cost and without retribution. The mechanism should not impede access to the country's judicial or administrative remedies. The affected Indigenous Peoples communities will be appropriately informed about the mechanism.
6. Monitoring and Reporting	The borrower/client will monitor and measure the progress of implementation of the IPP. The extent of monitoring activities will be commensurate with the project's risks and impacts. The borrower/client will prepare periodic monitoring reports on the progress of IPP implementation, highlighting compliance issues and corrective actions, if any.
7. Unanticipated Impacts	If unanticipated impacts on Indigenous Peoples become apparent during project implementation, such as a change in the project's footprint, the borrower/client will carry out a social impact assessment and update the IPP or formulate a new IPP covering all applicable requirements specified in the SPS document.

Applicable ADB Safeguard Policy Statement

Special Requirements

Special Requirements exist for the following categories. Specific guidance is detailed in the SPS document in reference to these, if applicable.

1. *Ancestral Domains and lands and Related Natural Resources*
2. *Consent of Affected Indigenous Peoples Communities*
3. *Indigenous Peoples and Development*

Source: ADB Safeguard Policy Statement (2010) ⁽¹⁾

The above standards are to be applied in conjunction with the *ADB's Handbook on Resettlement and Environmental Assessment Guidelines (2003)*; which provide information on good practice approaches to implementing the above safeguard

⁽¹⁾ ADB Safeguard Policy Statement (2010); ADB administration and governance; Environment; Social development and protection, paragraph 15

3.3.6

ADB's Social Protection Strategy (2001)

In addition to the standard ADB Safeguard Policies to regulate the proper implementation of an ESIA and responsible management of the project, the Kyaiklat Project will implement measures to comply with the ADB's Social Protection Strategy (2001). This strategy defines social protection as a set of policies and programs designed to reduce poverty and vulnerability by promoting efficient labour markets, diminishing people's exposure to risks, and enhancing their capacity to protect themselves against hazards and interruption/loss of income.

One key component of the policy is to adequately assess social risks, through the strategy's Social Risks-Risk Assessment and Risk Reduction Measures tool. This includes assessing risks in, lifecycle, economics, environmental and social or governance. The tool also incorporates levels of reduction measures to be considered, including options for public and private intervention and mechanisms.

Specifically the strategy also seeks to address the following aspects of social protection:

- a) labour market policies and programs designed to facilitate employment and promote the efficient operation of labour markets;
- b) social insurance programs to cushion the risks associated with unemployment, health, disability, work injury, and old age;
- c) social assistance and welfare service programs for the most vulnerable groups with no other means of adequate support;
- d) micro and area-based schemes to address vulnerability at the community level; and
- e) child protection to ensure the healthy and productive development of the future Asian workforce ⁽¹⁾.

3.3.7

ADB Gender and Development Policy (2003)

Following from the above section, the Kyaiklat Project will address and comply with the ADB's Policy on Gender and Development 2003. This policy introduces emerging areas of concern for women and gender issues and provides recommendations to development and finance institutions to provide a platform for action, as endorsed by the United Nations amongst this issue. This includes institutional mechanisms and strategic objectives of improving the status of women. Primarily the policy includes a key strategy for promoting gender equity, the key elements being:

- a) Gender sensitivity: to observe how ADB operations affect women and men, and to take into account women's needs and perspectives in planning its operations.

⁽¹⁾ Social Protection Strategy, 2001, Asian Development Bank

- b) Gender analysis: to assess systematically the impact of a project on men and women, and on the economic and social relationship between them.
- c) Gender planning: to formulate specific strategies that aim to bring about equal opportunities for men and women.
- d) Mainstreaming: to consider gender issues in all aspects of ADB operations, accompanied by efforts to encourage women’s participation in the decision-making process in development activities.
- e) Agenda setting: to assist DMC governments in formulating strategies to reduce gender disparities and in developing plans and targets for women’s and girls’ education, health, legal rights, employment, and income-earning opportunities.⁽¹⁾

3.3.8 *ADB’s Public Communications Policy (2011)*

With any ESIA, public communication and stakeholder participation is key. In following with the requirements of compliance with ADB Standards, the Kyaiklat Project will address and comply with the ADB’s Public Communications Policy (PCP) 2011. This policy promotes proactive external relations and improved access to information about ADB operations for better development effectiveness. The policy promotes greater transparency and accountability by enabling ADB’s stakeholders—especially people affected by development activities—to better participate in the decisions that affect them.⁽²⁾

The policy aims to enhance stakeholders’ trust and ability to engage, through the fundamental policy elements of:

- a) Proactive disclosure
- b) Presumption in favor of disclosure
- c) Right to access and impart information and ideas
- d) Country ownership
- e) Limited exceptions
- f) Right of appeal⁽³⁾

3.4 *INTERNATIONAL CONVENTIONS*

Myanmar has ratified several international conventions. Highlights of key conventions are provided below.

3.4.1 *The Kyoto Protocol on Climate Change (UNFCC)*

Myanmar achieved full accession to the UNFCC in 2003. This obligates Myanmar to assure that future development in the country meets the conditions of the Convention. Relevant to this Project are the requirements associated with the

⁽¹⁾ Gender and Development Strategy, 2003, Asian Development Bank

^{(2),(3)} Public Communications Policy 2011 – Disclosure and Exchange of Information, 2011, Asian Development Bank

potential generation of greenhouse gas from the operation of the coal fired power plant; further conditions of relevance include:

- Enhancement of energy efficiency in relevant sectors;
- Protection and enhancement of sinks and reservoirs of greenhouse gases;
- Promotion of sustainable forest management practices, afforestation and reforestation;
- Promotion of sustainable forms of agriculture;
- Implementation of measures to limit and/ or reduce emissions of greenhouse gases; and
- Limitation and/ or reduction in methane emissions.

3.4.2 *The United Nations Convention on Biodiversity 1992*

This Convention seeks to conserve biodiversity and promote its sustainable use. It requires the identification and monitoring of the biodiversity in an area and adopting the necessary conservation measure. Myanmar became party to this Convention in 1994.

3.4.3 *The Basel Convention 1989*

This was developed under the auspices of the United Nations Environmental Programme (UNEP) in response to the growing worldwide awareness of the problem of international traffic in hazardous waste. The *Basel Convention 1989* is the first and foremost global environmental treaty that strictly regulates the trans-boundary movement of hazardous wastes. It obligates parties to ensure environmentally sound management, especially during the disposal process.

The objectives of the Convention are to:

- Ensure that waste is disposed of as near as possible to the place or source of its generation;
- Reduce trans-boundary waste and where it cannot be avoided, to be disposed of in an environmentally sound and efficient manner; and
- Provide assistance to developing countries in the management of hazardous waste and the generation.

The Convention places a ban on the export of hazardous waste from Organization for Economic Cooperation and Development (OECD) countries to non-OECD countries.

A list of Project-relevant international treaties of which Myanmar is a signatory are provided in **Table 3.13**.

Table 3.13 International Conventions Ratified by Myanmar

No.	Conventions	Year (Ratified/Accessed/Accepted)
Environment		
1	Plant Protection Agreement for the Southeast Asia and Pacific Region, Rome 1956	1959 (Ratified)
2	MARPOL: International Convention for the Prevention of Pollution from Ships 1973 and MARPOL Protocol of 1978	1988 (Accession)
3	ICAO: ANNEX 16 to the Convention on International Civil Aviation Environmental Protection Vol. I and II, Aircraft Noise and Aircraft Engine Emission	Accession
4	Agreement on the Networks of Aquaculture Centres in Asia and the Pacific, Bangkok 1988	1990 (Accession)
5	Vienna Convention for the Protection of the Ozone Layer, Vienna 1985	1993 (Ratification)
6	Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal 1987	1993 (Ratification)
7	London Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, London 1990	1993 (Ratification)
8	United Nations Framework Convention on Climate Change (UNFCCC), New York 1992	1994 (Ratification)
9	Convention on Biological Diversity, Rio de Janeiro 1992	1994 (Ratification)
10	The Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris 1972	1994 (Acceptance)
11	International Tropical Timber Agreement (ITTA), Geneva 1994	1996 (Ratification)
12	United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought, Paris 1994	1997 (Accession)
13	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Washington DC 1973; and as amended in Bonn, Germany 1979	1997 (Accession)
14	ASEAN Agreement on Conservation of Nature and Nature Resources, Kuala Lumpur, 1985	1997 (Signatory)
15	Kyoto Protocol to the Convention on Climate Change, Kyoto 1997	2003 (Accession)
16	ASEAN Agreement on Trans-boundary Haze Pollution	2003 (Ratification)
17	Stockholm Convention on Persistent Organic Pollutants (POPs), 2001	2004 (Accession)
18	Ramsar Convention on Wetlands of International Importance	2005 (Accession)
19	Establishment of ASEAN Regional Centre for Biodiversity	2005 (Signatory)
20	Declaration on ASEAN Heritage Parks	2003 (Signatory)
21	International Treaty on Plant Genetic Resources for Food and Agriculture, 2001	2004 (Ratification)
22	Catagena Protocol on Biosafety, Cartagena, 2000	2001 (Signatory)
23	Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, Rome, 1973	1994 (Acceptance)
24	United Nations Convention on the Law of the Sea, Montego Bay, 1982	1996 (Ratified)
25	Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, New York, 1994	1996 (Accession)
26	Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction, Paris, 1993	1993 (Signatory)

No.	Conventions	Year (Ratified/Acceeded/Accepted)
27	Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea Bed and Ocean Floor and in the Subsoil there of, London, Moscow, Washington, 1971	1971 (Signatory)
Social, Labour and Health		
28	Universal Declaration of Human Rights (UNDHR)	signed
29	Convention on the Rights of the Child	1991 (acceeded)
30	Convention on Elimination of All Forms of Discrimination against Women (CEDAW)	1997 (acceeded)
31	Relevant ILO Conventions in force in Myanmar <ul style="list-style-type: none"> • C1 Hours of Work (Industry) • C14 Weekly Rest (Industry) • C17 Workmen’s Compensation (Accidents) • C19 Equality of Treatment (Accident Compensation) • C26 Minimum Wage Fixing Machinery • C29 Forced Labour Convention • C42 Workmen’s Compensation (Occupational Diseases) Revised 1934 • C52 Holidays with Pay • C87 Freedom of Association and Protection of the Right to Organize 	