

Environmental Management Plan: A Case in Myanmar International Terminals Thilawa Port Development Project

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Abstract

Classification of Myanmar EIA system seems to be a little different from that of international organizations such as the World Bank, International Finance Corporation and Asian Development Bank, in that Myanmar just started its EIA System in 2015 while the other countries and organizations initiated it around 1970. Similarly, most of the Asian and South East Asian countries formulated theirs around 1975 except for the Lao PDR, who developed its EIA System in 2000. As Myanmar has started its EIA system comparatively late, there are a number of businesses that are already operational before enactment of environmental legislations (Environmental Conservation Law 2012, Environmental Conservation Rules 2014 and EIA Procedure 2015). To address this issue, Article 55 (a) of the Environmental Conservation Rules has laid out enforcement for project proponents to prepare and submit the Standalone EMP for their existing businesses and seek Environmental Compliance Certificate from Ministry of Natural Resources and Environmental Conservation (MONREC). The MONREC has, by using the powers prescribed in Article 42 (b) of Environmental Conservation Law, issued a special notification in 2018 for existing businesses to prepare and submit EMPs for their activities. As a result, many EMP reports were submitted to MONREC and, as of September 2020, about 90% of those received by MONREC are from Mining and Industrial Sectors, with a lesser extent from other sectors. This article will focus on one of those EMP submitted by the Myanmar International Terminals Thilawa Port development project, which was already operational since 1997.

Background of EIA System in Myanmar

The Republic of the Union of Myanmar is firmly engaged in a historic process of development, democratization, justice and peace. Since 2011, Myanmar reformed towards the democratic country by changing its political, economic and environmental policies. To achieve the targets set forth by Sustainable Development Goals 2030 (SDGs) and to integrate environmental considerations into national development processes, Myanmar has adopted the National Environmental Policy (NEP) ever since 1994 and has amended it in April 2019. The objective of Myanmar's NEP is to achieve harmony and balance in sustainability through the integration of environmental considerations into the development process to enhance the quality of life of all its citizens. The policy provides long-term guidance for government, civil society, the private sector and development partners on achieving environmental protection and sustainable development. Besides, the democratic government laid down its economic policy, and formulated Myanmar Sustainable Development Plan 2018-2030 (MSDP) to achieve the country's economic policy in harmony with environmental sustainability. Subsequently, Environmental Conservation Law 2012 (ECL), Environmental Conservation Rules 2014 (ECRs), and Environmental Impact Assessment (EIA) Procedure 2015 were also promulgated to strengthen the environmental legislation in the country.

The Ministry of Natural Resources and Environmental Conservation (MONREC) acts as a key actor and takes the leading role in implementing the government's environmental policy. It is clearly stated in section 7 (m) of ECL that MONREC has duties and powers to lay down or carry out a system of Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) for a project or activity. Following the commencement of ECL, the Environmental Conservation Department (ECD) has been established in late 2012 to, on behalf of MONREC, implement ECL as outlined in Chapter IV, "Duties and Powers relating to the Environmental Conservation of the Ministry" and other Chapters that highlighted specific roles for the Ministry. After its formulation, the ECD has been initiating to strengthen the environmental legislation in the country,

resulting in ECRs, EIA Procedure, Environmental Quality (Emission) Guidelines 2015 and Myanmar Climate Change Policy 2019.

. Under Myanmar EIA system, there are two types of Environmental Management Plan (EMP); EMP attached to the IEE or EIA report and standalone EMP. According to article 55 of the ECRs, any project, which has started its construction and operation activities before issuance of ECRs in 2014, has the responsibility to prepare the Standalone EMP and submit to MONREC in order to seek approval and receive Environmental Compliance Certificate (ECC) from MONREC. As a result, existing projects that have been developed before 2014 have prepared and submitted EMP reports to MONREC. Of course, ECD is responsible to review them and report to MONREC accordingly.

Furthermore, with the advent of new notification by MONREC in 2018 regarding the project proponents for 9 Priority Industrial Sector (PIS) to prepare EMP, a considerable amount of EMP reports has been received by MONREC, which is accounted for 20% of the total EMP received so far. All of them need a strong environmental management system in their operation in order not to adversely affect the environment and community there.

Table 1. Nine Priority Industrial Sector notified by MONREC (adapted from Win 2019 et. al.,)

No.	Category	Scale	Time stipulated
1	Alcohol, wine and beer production	>50,000 liters/ day	12 months
2	Food and beverage processing	>10 tons/ day	9 months
3	Pesticide manufacturing, formation and packaging plants	All sizes	9 months
4	Cement and lime manufacturing	Cement >10 tons/ day Lime >20 tons/ day	9 months
5	Textile and dyeing facilities	>1 ton/ day	12 months
6	Foundry industry:		9 months

	1. Base metal smelting and refining plant 2. Manufacture of pig iron, raw and low alloy steel from iron ore or scrap metal 3. Foundry 4. Non-ferrous metal melting, smithy and filigree	All sizes All sizes All sizes >50 tons/ day	
7	Tanning and leather finishing	All sizes	12 months
8	Pulp and/ or paper mills	>20 tons/ day	12 months
9	Sugar manufacturing plants	Production capacity >50 tons/ day	12 months

The EIA Procedure (2015) sets out specific requirements for all type of Environmental Assessments; Scoping for Environmental Impact Assessment, Environmental Impact Assessment (EIA), Initial Environmental Examination (IEE) and Environmental Management Plan (EMP), defining roles and responsibilities of ECD and project proponent, and placing punishments for violating the requirements. Annex A of the procedure provides the project categorization for screening to determine the need for development of EIA, or IEE, or EMP.

The EMP plays a crucial role in the IEE and EIA report. As usual, an EMP consists of details of proposed mitigation measures and appropriate monitoring programs. Also, it should have the adequate funds and responsible parties assigned by the project proponent to control and mitigate the negative impacts affected by the project development under construction, during the operation and decommissioning stages. In general, a new project needs to categorize IEE or EIA based on the criteria of Annex A of EIA procedure at the screening process. According to the Article 9 of EIA Procedure, for cases like expansion or extension of the existing project, which previously does not have either EIA or IEE, the project proponent needs to conduct EMP to receive ECC issued by MONREC. The requirements for EMP are clearly set out under Articles 76 to 82 of the EIA Procedure.

Therefore, it is evident that EMP plays a crucial role in Myanmar EIA system not only to provide an essential part of every IEE or EIA report for a new

project but also to support as a requirement of the existing facilities for project expansion and extension before issuance of ECRs in 2014.

A Case in Myanmar International Terminals Thilawa Port Development Project

The Myanmar International Terminals Thilawa (MITT) project is run by Hutchison Ports which is a private holding company and a subsidiary of CK Hutchison Holdings. The project is operating on the Built-Operate-Transfer (BOT) basis with Myanmar Port Authority, the government organization responsible to the development of Port sector, for a long-term period of 50 years with a possible extension up to 20 years more. According to MITT, the company has businesses throughout Asia, Middle East, Africa, Europe, America and Australia with over 30,000 employees providing wide services from port operations, logistics, cargo handling to container transportation, ship maintenance and cruise terminal. The MITT project is Myanmar's first purpose-built international container terminal, and is located in plots 5-9 of Thilawa area in Yangon region.

The Yangon region is the former capital city of Myanmar and is still the economic hub of the country. Recognizing the important role of logistic businesses in the country's economic development, government has established the Port Zone with 37 plots in Thilawa area, which is next to the largest Thilawa Special Economic Zone (SEZ) in the country and just 25 km away from Yangon City. Out of 37 plots in the region, the MITT project is operating on 5 consecutive plots since 1997 with the total yard area of 75 hectares, total berth length of 1,000 meters, a depth alongside of 9 meters, maximum berthing capacity of 5 vessels, and maximum capacity of 450,000 TEU containers per year. It can serve up to 2,000 TEU feeder ships and conventional cargo ships of 35,000 tons deadweight.

The EMP for MITT project was studied and prepared by Myanmar Koei International Co., Ltd. and submitted to MONREC in January 2020. The report was being reviewed and the ECD's findings and suggestions on it was sent back to project proponent, who again needs to submit the revised EMP report in

accordance with the suggestions to receive ECC from MONREC. In other words, the EMP report is still not approved and issued ECC yet.

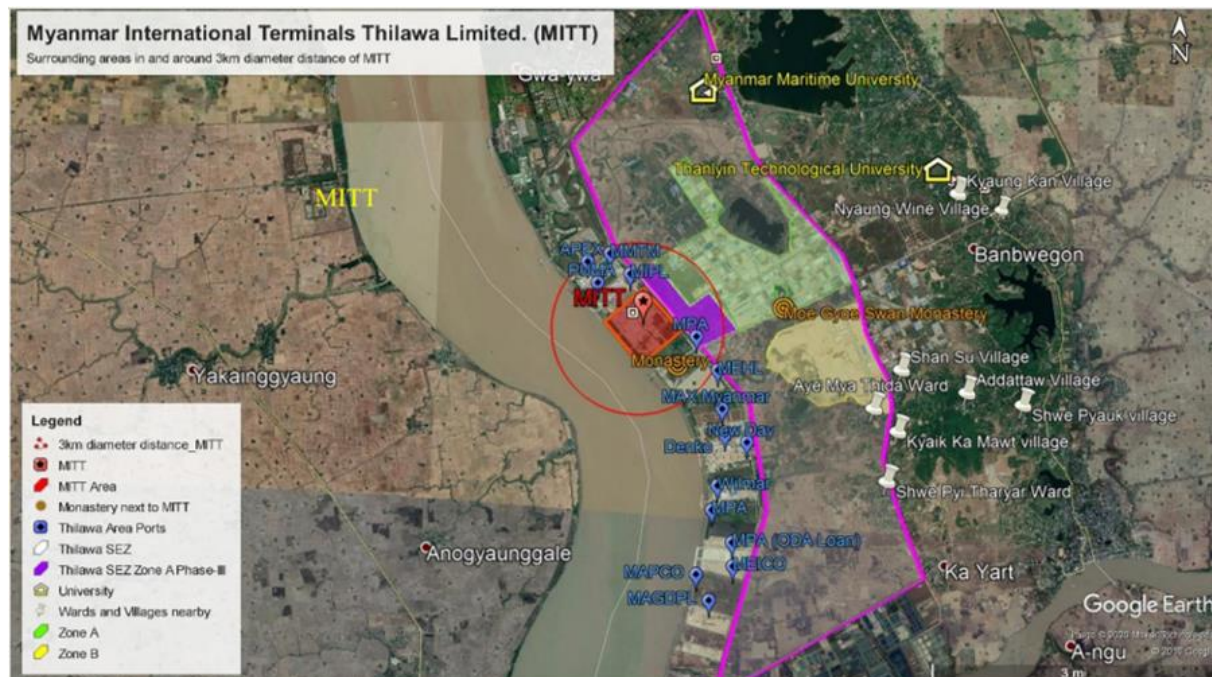


Figure 1: Location of MITT project

Baseline Studies

Several primary and secondary data collections were conducted for baseline purpose. These include climate and meteorological conditions, air (inside project compound), water (both upstream and downstream), sediment (just downstream of the berth), noise and vibration (inside project compound near main gate), weather monitoring and socio-economic status of the project vicinity.

Key Environmental Impacts & Mitigation Measures

The scope of the study area was set to 3 km diameter of the project compound. Within the study area, there was no sensitive receptors such as nature reserves or historical and cultural areas observed. The majority of the adjacent land is currently operated by Thilawa SEZ and other port businesses (Figure 1).

Since the project is already operationalized, two of the project stages: Pre-construction and Construction has been skipped and the report has focused on the impacts and mitigation measures regarding with Operation and Decommissioning stages. For each stage, the report has identified the key impacts and respective mitigation measures on five environmental and social conditions as follows;

- Pollution (Air Quality; Water Quality; Wastes; Hazardous and Chemical Materials; Offensive Odor; Soil Contamination; Noise and Vibration; Ground Subsidence; Bottom Sediment)
- Natural Environment (Protected Area; Marine Ecology; Hydrology; Topography and Geography)
- Social Environment (Involuntary Resettlement and Land Acquisition; Local Economy; Indigenous and Ethnic People; Land Use and Local Resources; Greening and Landscape; Existing Social Infrastructures and Social Services; Conflicts of interests within the region; Cultural Heritage; Gender Discrimination; Children's Right)
- Health and Safety (Occupational/ Community Health and Safety)
- Emergency Risks (Fire; Flood; Earthquake)

Weakness in Baseline Studies and Impact Identification

Upon reviewing the report, ECD found out two major shortcomings; lack of study in the aquatic environment and public consultation. Although the project is located just on the bank of Yangon River, the report did not include any study and findings related to the aquatic conditions. Understanding the healthiness of aquatic ecology would enhance the identification of project's impacts and, accordingly, the development of effective mitigation measures to them, which in turn would assist the fishing businesses by local community.

The Stakeholder Engagement Process (SEP) during the environmental management planning is a process that promotes a relationship of trust and transparency between the proponent and stakeholders involved. Integrating the concerns from stakeholders through public consultation mechanism is the major requirement in the process of environmental reporting in Myanmar. However, it came into effect after issuance of EIA Procedure in 2015. Since the

project is already in operation stage, the report did not include the Public Consultation chapter. Instead, the report stated the contributions by MITT to local University, schools and community through granting scholarships to graduate students of Myanmar Maritime University, providing school and infrastructure facilities to local schools and community.

Environmental Monitoring

Once the EMP report is being approved, the project proponent of MITT is responsible for the implementation and management of monitoring plan, which was stated as a separate chapter in submitted report. Monitoring report needs to be submitted to ECD twice a year. Institutional arrangements to effectively implement the EMP for both operation and decommissioning stages along with the parameters to be monitored, methodology to be used, location and frequency of each monitoring point were described in the report. The expected budget to implement EMP was allocated.

Conclusion

In general, preparing Environmental Management Plan (EMP) would assist the project to be environmentally and socially sustainable as it considers both environmental and social aspects in its study and reporting. Project proponent can enjoy the sustainability of the project while meeting the needs and concerns of the stakeholders concerned. In case of Myanmar, submission of EMP reports by individual project proponents has considerably increased year by year, thanks to the developed environmental legislations in the country followed by the enforcement by regulators. Through this practice, Myanmar is confident to gain the Myanmar Sustainable Development Plan by 2030.

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