

Technical Report

**Environmental Impact Assessment on the Fauna
of the Project Area of Thalawa Economic Zone**



10-2-2013

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GENERAL INTRODUCTION

Myanmar International Terminals Thilawa (MITT) is a multi-purpose container terminal located at Thilawa near the mouth of the Yangon River. The terminal offers a comprehensive range of safe, efficient and productive services to the shipping industry 24 hours a day, seven days a week.

MITT is located just 25 kilometres from Yangon, the largest city in Myanmar and the country's international trade portal, through which 90 percent of the nation's maritime trade passes. The facility is also adjacent to the soon-to-be-developed Thanlyin-Kyauktan Special Economic Zone.

MITT includes five berths capable of handling a wide variety of cargo. Large vessels with deep drafts can dock here thanks to the close proximity to the mouth of the Yangon River. Furthermore, the arrival and departure of containers to MITT is efficient due to the location of a rail terminal inside the facility.

Development of new Thilawa port is being conducted in Thanlwin Township and Yangon Rivers. This area is mouth of Yangon River, Four or five streams are flowing into this river, The catchment area is lowland plain, agricultural land areas. This area is the junction between Thanlwin and Kyauk-Tan townships. Tall trees grow sparsely and many canopy trees of medium and tall trees are near and in the villages. Monsoon rain is approximately 1000 mm or more, maximum temperature is 104°F while minimum is 17°F. Therefore, It means that the area is weather condition is hot and humid that favour the biodiversity while according to the huge area of the agricultural land is one of major limiting factors that decrease the diversity.

Yangon river and its tributaries are estuarine, coming up and going down the into this river and streams for it seasons, freshwater fish, marine water fish and brackish water fish inhabit in this area seasonally. Hence, this area is biodiversity rich area of aquatic biota including fish species.

Any change of land cover and disappearance of vegetation types such as trees, woods, and perennial plant species in that affect the diversity of land animals that depend directly or indirectly on the plants, consequently, affects on the aquatic fauna and flora diversity. The changes of water parameters such as transparency or turbidity, Dissolved oxygen, acidity, dissolved mineral contents, conductivity and other parameters may affect on the survival and reproductive performance of the aquatic performance.

Insects are coevolved with the flowering plants, devouring plant materials, leaves, barks, trunks, flowers, nectars, pollens, and fruits. Insects cannot survive in that

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area of plants absence. All amphibian species, most reptiles, and all birds depend on the insect species or plants. Hence, any land cover changes negatively affect on the species diversity of all taxonomic taxa, such as plants, and animals including insects, herpetiles and birds.

PARTICIPANTS

Ten fauna specialists from five different taxonomist groups, (1) Ichthyology group, (2) Ornithology group, (3) Herpetology group (4) Entomology and (5) mammalogy group participated to explore the faun diversity and the Environmental Impacts Assessment (EIA). The followings are as:

1. Dr Khin Maung Swe, **Fauna Leader, Bat specialist**
2. Dr San San Oo, **Herpetologist**
Lecturer, University of Yangon
3. Dr Aye Aye Maw, **Mammalogist**
Assistant Lecturer, Dagon University
4. Dr Yin Win Tun, **Ichthyologist**
Assistant Lecturer, Dagon University
5. Daw Ohnmar Aung, **Ichthyologist**
Assistant Lecturer, Dagon University
6. Dr Nyo Nyo Aung, **Ornithologist**
Assistant Lecturer, Yangon University
7. Dr Khin Maw Maw Myint, **Ornithologist**
Assistant Lecturer, East Yangon University
8. Dr Khin Mar Lwin, **Entomologist**
Demonstrator, Dagon University
9. Dr Kyaw Zwar Aung, **Herpetologist**
Demonstrator, Dagon University
10. U Yan Nan Hein, **(Herpetologist)**

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SURVEY AREAS

Survey area of for the Environmental Impact Assessment (EIA) on the fauna was categorized into following:

- Site 1. Alunswut village and is environs (N 16°40.665' and E 96°14.964') (4.7m)
- Site 2. Thilawa old village and its environs (N 16°39.716' and E 96°15.573') (1 m)
- Site 3. Bay Pauk stream and its environs (N 16°38.256' and E 96°15.902') (1 m)
- Site 4. Shwe Pyauk stream and its environs (N 16°39.550' and E 96°16.292') (-5.1m)
- Site 5. Phalann stream and its environs (N 16°37.785' and E 96°16.131') (0.9 m)
- Site 6. Hmhaw Wun stream and its environs (N 16°37.814' and E 96°21.287') (-5 m)

ITINERARY

Fauna survey was explored to investigate the fauna diversity and impact assessment at the Thilawa Project Area, located in Thanlin Township of Yangon Region. The itinerary for the fauna survey is as below:

- 26.1.2013 Alunswut village
Thetcal kwin village
Yaytakhar village
- 27.1.2013 Thilawa old village
BayPauk stream
- 2.2.2013 Thilawa old village
Phalann stream
- 3.2.2013 Shwe Pyauk stream
Phalann stream
Hmaw Wun stream