



WWF-Myanmar
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Terms of References

Consultant for Tanintharyi River Ecosystem Survey

Supervised by: Project Officer – Healthy River
Work location: Dawei, with extensive travel to the field
Duration: About 3 months (25 working days)

1. Background

Myanmar has a long history of mining and Myanmar territory is rich of natural resources in the whole country. Country's overall geology and mineral reserves still remaining exists. According to the geological survey, gold deposit are located in Mandalay and Sagaing in central/northern Myanmar, Kachin and Shan state in the north, and Mon State and Tanintharyi Region in the south.

Tanintharyi region is one of the most biological diversity area in the world. WWF recognized Dawna Tenasserim as a key global priority landscape for conservation. Also Tanintharyi River is one of the free flowing river and one of the Larges Rivers in southern Myanmar and many Karen indigenous people are live along the river. Today, many kinds of threats are impact to indigenous people and the river ecosystem. Artisanal and small scale mining is one of the major threat of the Tanintharyi River and indigenous people. Indigenous people are believe that river is their lives and Tanintharyi River is the main water resources for their livelihood. They use river water for daily use, transportation and they accept river is their bloodline.

The 300 km long Tanintharyi or Great Tenasserim River is one of the most important rivers in the Dawna Tenasserim Landscape (DTL) of South East Myanmar. Flowing from an altitude of over 2000m towards the Andaman Sea at Myeik, relatively little is known about the river ecosystem. While some significant threats to the ecosystem, in particular mining, and potential dam building, are known, their potential impact has not been studied. Given that the river is a key aquatic lifeline in this region, it is important to assess the health of its ecosystem, its importance to local communities, as well as the extent of human impacts and current threats. This can inform development planning by local authorities and communities to address current pressures and avoid future threats.

2. Objectives

The objective of the consultancy is to conduct an in-depth assessment on the threats and impact of mining activities in Tanintharyi River looking at social, environmental and health impacts. The consultancy also aims to more specifically do water quality assessment and test mercury and other toxic chemical trace in human and aquatics animals (fisheries).



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The consultant will work with WWF staffs, relevant authorities and local CSO/CBO and community in Tanintharyi Region.

3. Scope of Work

The scope of this consultancy work is outlined below.

1. Provide training to CSO/CBO in Tanintharyi region on how to collect water sample, human hair and tissues from aquatic animals
2. Conduct Political Economic Analysis for Artisanal and Small-Scale Mining (ASM) in Tanintharyi region which will cover the following:
 - Identify the key power relation, dynamics and trends in Myanmar Government and KNU systems, structure and process
 - Identify overt and covert power brokers, structures and systems in ASM sector
 - Identify and highlight the current roles of different groups (women, youth, men and child)
 - Identify key obstacle and requirement of law enforcement in ASM sector
 - The consultant will design the study, through consultation with WWF
3. Conduct gold mining supply chain analysis :
 - Analyze the current supply chain layers as well as trade flow, distribution, approval process and compliance
 - Estimate the gold production rate in ASM sector in Tanintharyi Region
 - Determine the supply chain needs and information (including scale, size, and location of mining, mining process and requirement of the human resources and other resources).
 - Tools and guide questions for the interviews should be developed in consultation with WWF.
4. Do an analysis of the current and future threats of ASM mining to Tanintharyi River Ecosystem and local communities that can be potentially affected including an in depth assessment of the effect of mercury to the river ecosystem and Human health and food change. This analysis should be backed by science (e.g. laboratory tests).
5. Present and validated the findings to relevant stakeholders
6. Facilitate the development of mitigation and action plans by the relevant stakeholders based on the findings of assessment.
7. Provide recommendations, monitoring and mitigation plans based on of the findings.



4. Output and Deliverable

No.	Deliverables/ Outputs	Target Date for Report (Negotiable)
1.	Political Economic Analysis Report	3rd week of November 2020
2.	Supply Chain Report	4th week of November 2020
3.	Water Quality Assessment Report	2nd week of December 2020
4.	Mercury assessment for Human and Aquatic Animals Reports	2nd week of December 2020
5.	Final Report – an consolidated and in depth assessment report including recommendations and action plans	End of December 2020

5. Duration of the Work

This TOR should be accomplished in three (3) months; with a total 25 working days spread over three months (October -December 2020).

6. Qualification

- At least 5 years of relevant experiences in environmental and social impact assessment especially in Myanmar and Southeast Asian Countries.
- At least 3 years of relevant experiences in ecosystem survey especially river ecosystem
- Must have strong experiences and knowledge in mining activities and process (especially gold mining)
- Also experiences in GIS or other analytical tools or software
- Fluency in English and experience in writing reports in English
- Willingness to travel to the field collecting data and information and interviewing stakeholder
- Can be work together with WWF staff and various stakeholders