Term of Reference
Consultancy Assignment
Public Health Researcher

Supervised by: Natural Resources Exploitation Initiative Coordinator
Work location: Remote (ability to work completely or partially in the Greater Mekong time zone)
Salary: Competitive
Duration: 10 weeks

1. Background of consultancy assignment/ project

Southeast Asia is exceptionally rich in extractive resources, such as minerals, with resource abundance playing a central role in the history of numerous countries. In 2014, the Asia-Pacific region accounted for more than half of the world’s total production of metal ore and metals). Gold is fairly widely, though irregularly, distributed throughout Southeast Asia in igneous and metamorphic hard rock deposits and sedimentary placer deposits.

Rivers are often the main water source for local people’s livelihood and are used daily for transportation and nutrition. While some significant threats to the region's freshwater ecosystems, particularly mining and dam building, are known, their potential impact on people and ecosystem health has yet to be deepened regionally. Extractive activities are a significant source of chemical contamination in rivers, being released directly and indirectly. Concerns that chemical contamination has been found in fish and humans, particularly in indigenous communities. Given the key role of river ecosystems, assessing their health, their importance to local communities, and the extent of human impacts and current threats is important.

The project aims to create a dashboard, compiling and updating key data on chemical pollution in rivers at different levels of the food chains and within the human population to inform decision-making. To this end, data on specific chemical contamination at various stages of the food chain will be collected and analysed. Creating an internal online dashboard will allow disseminating the data and understanding of how and where phasing out mercury in the gold mining sector is most needed. This will also contribute to reducing mercury emissions.
2. **Objective of the consultancy**

The objective of the consultancy is to review current methodologies used by WWF, identify gaps and opportunities, assess the impacts of specific chemical contamination in river streams, and look at social, environmental and health impacts. The consultancy aims to strengthen the methodology and protocol used to conduct water quality assessment, and test specific toxic chemical traces in human and aquatic animals (fisheries).

The consultant will work with WWF staff to ensure a robust research methodology for assessing specific chemical contaminations of activities in target sites is drafted and review the sampling protocol in place. The consultant will also advise WWF staff and associates on a training curriculum to build the capacity of local CSO/CBO and communities in pilot site(s).

3. **Scope of work/ Major responsibility**

The scope of this consultancy work is outlined below.

- Review of WWF methodology and protocols used in selected Southeast Asian countries to detect and monitor contamination of specific chemicals, identify weaknesses and bias, and provide suggestions to use these in developing/proposing a methodology for WWF projects in selected countries. Advise on what type of samples to collect and where to conduct sampling according to the on-the-ground situation at a WWF pilot site, considering the final aim of creating a dashboard. Review tools and protocols used to collect and analyse samples.
- Develop a methodology document and protocol measures for conducting assessment of chemical contamination in rivers/streams depending on on-the-ground risk and security. The document will then be used at the WWF pilot site.
- Support WWF staff with technical expertise in developing training curriculum to deliver to local stakeholders at the pilot site.
- End of the work report summarising work carried out and provides recommendations on other potential studies/analyses that could be conducted better to frame the threats of extractive activities in key sites.
4. Outputs/deliverables of performance and schedule

<table>
<thead>
<tr>
<th>No</th>
<th>Deliverables/Outputs</th>
<th>Dates (Negotiable)</th>
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<tbody>
<tr>
<td>1</td>
<td>Updated/Refined methodology on assessment and protocols for sampling to detect chemical contamination in rivers</td>
<td>1 month</td>
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<tr>
<td>2</td>
<td>Support in developing training curriculum</td>
<td>3 weeks</td>
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<tr>
<td>3</td>
<td>Final report with recommendations</td>
<td>3 weeks</td>
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5. Required profile:

Knowledge/Expertise:
- Bachelor and/or Master’s degree in studies on public health, chemistry, industrial engineering or environmental sciences.

Experiences:
- Knowledge of natural resources and environmental threats.
- Strong experience and knowledge of extractive activities and processes.
- Desirable – Work experience in the public health sector.
- Desirable - Work experience in a relevant field in Asia and/or Latin America.

Skills and Abilities:
- Attention to detail
- Excellent written and oral communication and analytical skills.
- Ability to present information to different audiences.
- Ability to synthetize large amount of information and data.
- Advanced working knowledge of MS Offices and tools used for remote working.
- Desired but not necessary - ability to use GIS.