Introduction

The Mekong River basin countries are frequently exposed to hydro meteorological hazards such as floods and droughts due to its exposure to the multiple hazards. Consequently, livelihoods in the Lower Mekong Basin are threatened by the construction of hydropower facilities and various developmental projects in China, Laos and Cambodia. The project ‘Capacity Building for Measuring Multi-Hazard Livelihood Security and Resilience in the Lower Mekong Basin’ is being implemented in three LMR countries; Thailand, Cambodia and Vietnam to enhance the capacity of multiple stakeholders involved in disaster risk and natural resource management to assess the resilience and livelihood security of communities exposed to natural and anthropogenic hazards in the region and identify areas of intervention.

Under the scope of the project, a toolkit has been developed for measuring livelihood security and resilience to multiple hazards, which aims at building the capacities of the stakeholders for evidence-based decision-making and interventions.

This capacity building workshop is being organized to advocate the need for integrated action in multi-hazard disaster resilience and livelihood security and aims at enhancing the capacity of various stakeholders to adopt the developed assessment tool in their actions and interventions in multi-hazard disaster risk management.

Objectives

1. To discuss regional, national and local perspectives of community capacity building for multi-hazard resilience and livelihood security.
2. To identify the different stakeholders involved in disaster risk reduction, management and livelihood security.
3. To identify the inter-relationships between different stakeholders and risk reduction interventions to develop synergies.
4. To discuss the LiSeRa toolkit and its application for livelihood security and risk assessment in the LMR region.

**Event and Participants**

The following table provides an overview of the workshop events conducted and the number of participants in the three workshops.

<table>
<thead>
<tr>
<th>SN</th>
<th>Country</th>
<th>Venue</th>
<th>Date</th>
<th>No. of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thailand</td>
<td>Kasetsart University Sakon Nakhon Province Campus</td>
<td>29 – 30 September 2022</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>Vietnam</td>
<td>An Giang University</td>
<td>24-25 November 2022</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Cambodia</td>
<td>Royal University of Phnom Penh</td>
<td>13-14 December 2022</td>
<td>36</td>
</tr>
</tbody>
</table>

1. The participants in the workshops included faculties, researchers and students undertaking research in the field of disaster resilience, climate change adaptation, livelihood, socio-ecological and environmental management. Similarly, local stakeholders including government officials and community members (social leaders) also participated in the workshops.

**Workshop Activities**

The major activities conducted during the local workshops in the project countries is listed in the table below.

Table 1: Key activities conducted during the local workshops

| 1. | Presentation from experts engaged in research and practice in the field of disaster risk management, natural resource management, community engagement, livelihood security and relevant fields in LMR regions in Cambodia. |
| 2. | Presentation and hands-on demonstration of LiSeRa toolkit to the relevant stakeholders and potential end-users. |
| 3. | Group activity to collect expert opinions on the relative importance (weightage and ranking) of dimensions, sub-dimensions and indicators in the LiSeRA toolkit library. |
4. Open Forum Discussion to share ideas and experiences of participants with regards to disaster risk and natural resource management and livelihood security in the region.

5. Focus Group Discussions among different groups of participants to (i) understand vulnerability and capacity of community, organizations and institutions in multi-hazard resilience and livelihood security (ii) identify key gaps and challenges in interventions in the LMR region.

6. Field observation visits and interaction with stakeholders (agricultural communities, local leaders, government officials etc.) on the livelihood impacts and risk management actions.

During the workshops, Project Leader Dr. Indrajit Pal presented the regional perspective of disaster risk, climate change, livelihood impacts and resilience perspectives in the Lower Mekong Basin, emphasizing on the importance of generating assessment products to aid decision-making for risk management planning and action. He also introduced the Livelihood Security and Resilience Assessment (LiSeRA) framework and toolkit to the participants. Similarly, project collaborators from the respective countries shared local case studies regarding the impacts of natural hazards and anthropogenic stressors on rural livelihoods in the community and the local level initiatives from stakeholders and communities in building resilience.

The participants of the workshops had a change to share their experiences of multi-hazard such as flood, drought and tropical storm events in the past and efforts in hydrometeorological risk reduction, livelihood security and management. Open discussion was held to generate valuable information as such as identification of potential multi-hazard risk reduction interventions in the study area and identification of the key stakeholders and their roles.
In order to get a deeper understanding of the vulnerabilities of the community to multi-hazard towards livelihood security and identify gaps in hydrometeorological risk reduction interventions, a focus group discussions involving community members, experts and professionals from government, private sectors, civil society organizations and community organizations were also carried out. The discussion used a key questions guidance to identify key drivers of multi-hazard resilience in the LMB communities and to analyze type of livelihood securities to be considered mostly for the current policies in practice. The goal was to understand the relationships among interventions from multiple sectors and their roles in reducing hydrometeorological such as flood, drought and tropical storm. Government representatives from different line agencies such as fisheries, agriculture, water management, disaster risk management etc. highlighted the key challenges, existing interventions, and suggestions regarding hydrometeorological risk management in the communities. Similarly, local community members, social leaders and agricultural household members had the opportunity to share their experiences and suggest measures to improving resilience to natural disaster risk in the province.

Similarly, a group activity was also performed during the workshop to provide the participants with hands-on exposure to the LiSeRA tools. The participants were divided into several groups to undertake discussions on the dimensions, sub-dimensions and indicators in the LiSeRA toolkit library. During the group activity, the participants discussed the significance and relevance of each indicator in the LiSeRA library with respect to livelihood security and resilience within their communities, and provided feedback. In addition, the participants also engaged in discussions to provide relative rankings to the indicators through a pair-wise comparison method.
In addition to the technical sessions and discussions, the workshops also consisted of field observation visits. Participants and experts attending the workshop visited rural communities in the Mekong River basin, where interactions and interviews were conducted with local leaders and community members on the hazard scenario, their impacts on livelihoods, the challenges faced by the communities in adaptation and interventions undertaken to enhance resilience. These field observation visits and interactions helped the workshop participants to link the technical sessions and the concepts of livelihood security and resilience to actual practice.
Conclusion

The three local capacity building workshops conducted in Cambodia, Thailand and Vietnam were successful in introducing the concepts of livelihood security and resilience among the researchers and stakeholders in LMB communities. The technical sessions and discussions were fruitful in identifying the impacts of natural hazards and anthropogenic stressors on livelihoods and resilience in the communities. Similarly, participants became aware regarding the need of integrated assessment to identify gaps and develop risk management plans. The inputs from the participants were useful in further shaping the LiSeRA framework and toolkit, while the expert opinions gathered through pairwise comparisons were used to generate the weightages for the indicators during the finalization of the LiSeRA toolkit.