



# GEF-Satoyama Subgrantee Highlights Report

Organization Name:	Fauna & Flora International
Country:	Myanmar
Reporting Quarter:	FY17 Q2
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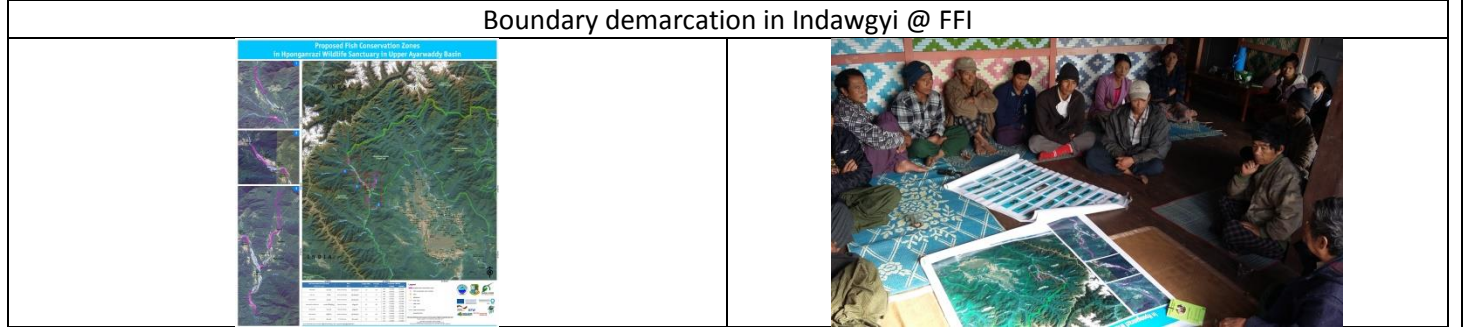
<Highlight 1>: FCZ boundary demarcation in Indawgyi.  
 Please add a summary/explanation  
 FCZ boundaries were demarcated in Indawgyi in collaboration with the Department of Fisheries, Wildlife Sanctuary and communities.

<Highlight 2>: Develop community agreed FCZ maps for Malihka River (Hponganrazi Wildlife Sanctuary)  
 Please add a summary/explanation  
 Developed community agreed FCZ and explained to the communities in the villages along the Hponganrazi Wildlife Sanctuary.

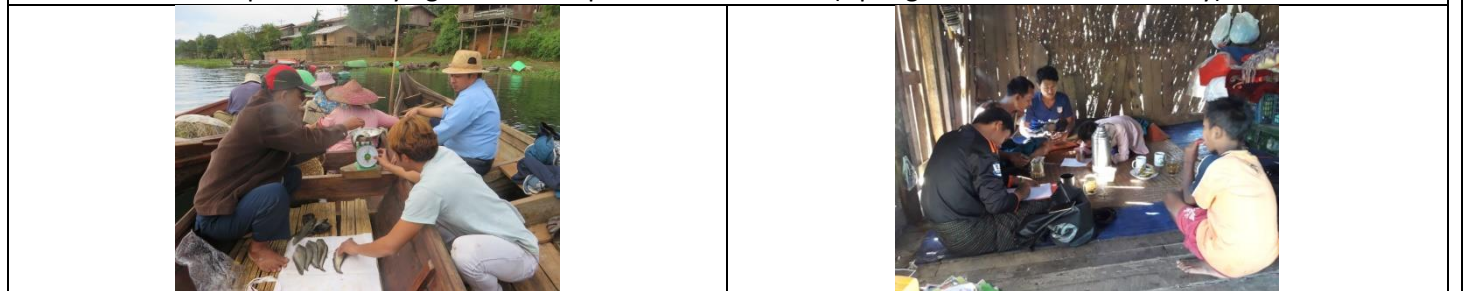
<Highlight 3>: socio-ecological production landscapes and seascapes (SEPLS) and resilience assessment conducted. This was done in November 2016 in one village community. (see workshop report and photos below)

## Photos

Boundary demarcation in Indawgyi @ FFI

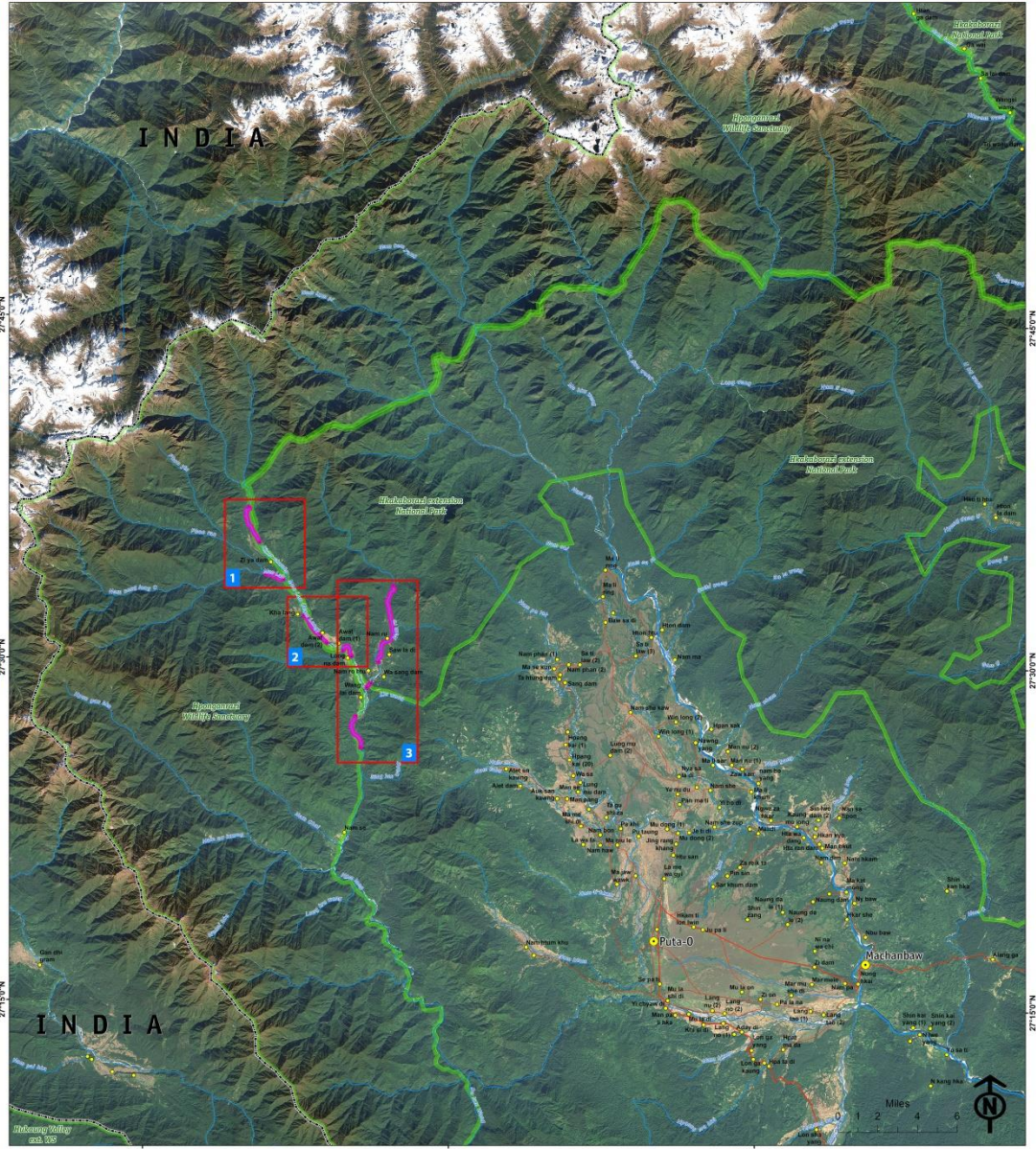
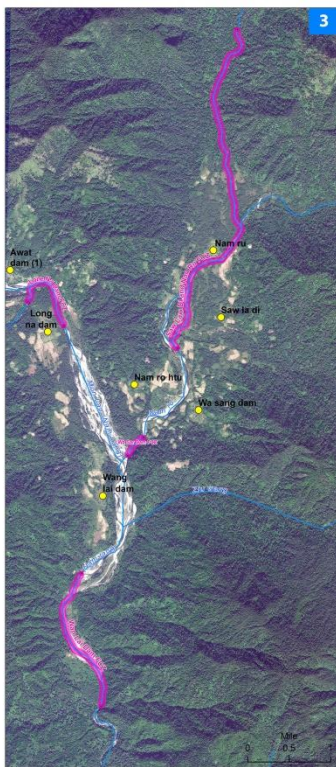
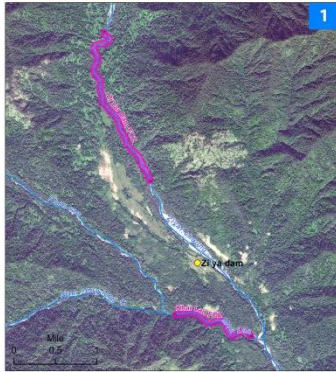


Develop community agreed FCZ maps for Malihka River (Hponganrazi Wildlife Sanctuary) @ FFI



Fish landing and CPUE survey in Indawgyi Lake together with the Department of Fisheries @ FFI

# Proposed Fish Conservation Zones in Hponganrazi Wildlife Sanctuary in Upper Ayarwaddy Basin



Fish Conservation Zone (FCZ) name ငါးနား-ဒေသများ	River တူးမြောင်း	length (miles) လက်မ	area (ac*) ဧက	Coordinates (WGS84)	
				Latitude	Longitude
Awat Dam	ဆာဝင်ခါး	Mon Lan Cheung	၂.8	235	start 27.53364 97.12231 end 27.53371 97.14488
Khar Lan	ခါးလန်	Mon Lan Cheung	1.2	67	start 27.50461 97.09337 end 27.53974 97.30876
Long Na Dam	လုံနား	Mon Lan Cheung	1.0	86	start 27.50811 97.15788 end 27.50419 97.18512
Saw Law Di and Nam Ru	ဆာလော့ဒါးနား	Nam Ru Cheung	4.5	259	start 27.53600 97.19442 end 27.50950 97.18766
Wa Sar Dam	ဝါးဆာ	Nam Ru Cheung	0.3	22	start 27.48489 97.28110 end 27.48163 97.27804
Wan Lai Dam	ဝါးလေး	Mon Lan Cheung	1.8	174	start 27.46103 97.16936 end 27.47769 97.17332
Zi Yar Dam	ဒီးယား	Mon Lan Cheung	2.2	124	start 27.63274 97.07881 end 27.58663 97.08843

\*) incl. 500m buffer from river bank / ငါးနားဒေသများတွင် ၅၀၀ မီတာ ခွယ်ဝန်းစဉ်းပါ အကျုံးဝင်သည်။  
 Date sources: Settlements, roads, rivers from FFI based on Survey Department Topographic maps, 1990.  
 Fish Conservation Zones from FFI and IFC. Admin. boundaries from IFC. Protected areas from WCS.  
 Imagery: Landsat 5 - 2015. Data maps: Bing imagery 2015.  
 Map Datum and Projection: UTM47N, WGS84.  
 Cartography: ArcGIS Desktop (9.3), 2015. www.hponganrazi.org  
 Produced with ArcGIS software, kindly provided to FFI by the IFCI conservation programme.

Community agreed FCZ in Mali Hka River (Hponganrazi Wildlife Sanctuary)



# ပူတာအိုဒေသတွင်တွေ့ရှိရသော ငါးမျိုးစိတ်များ (Fishes of Putao)



*Bangana* sp. Putao



*Celestichthys flagrans*



*Devario* sp. Putao



*Garra* aff. *dulongensis*



*Garra* sp. Putao



*Neolissochilus compressus*



*Neolissochilus* sp. Putao



*Oreinus* cf. *meridionalis*



*Opsarius* cf. *barna*



*Pethia* cf. *thelys*



*Pethia tiantian*



*Poropuntius* cf. *burtoni*



*Puntius chola*



*Raiamas guttatus*



*Semiplotus cirrhosus*



*Systomus saran*



*Tor* sp. Putao 1



*Tor* sp. 2



*Psilorhynchus brachyrhynchus*



*Balitora burmanica*



*Homalopteroides rupicola*



*Aborichthys* aff. *Kempf*



*Acanthocobitis* aff. *Botia*



*Schistura malaisei*



*Schistura* cf. *malaisei*



*Schistura sikmaiensis*



*Schistura* sp. black & white



*Schistura* sp. wings



*Batasio procerus*



*Ompok pabda*



*Pterocyptis berdmorei*



*Amblyceps murraystuarti*



*Exostoma stuarti*



*Glyptothorax trilineatus*



*Glyptothorax* sp. Putao



*Pseudecheneis brachyurus*



*Xenentodon cancila*



*Mastacembelus armatus*



*Badis pyema*










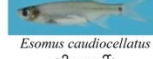





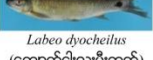





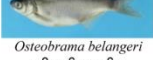










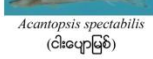


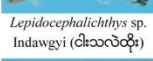
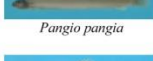
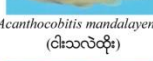
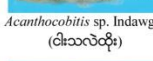
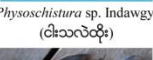
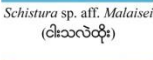
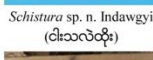


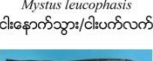


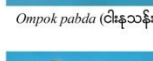


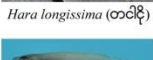
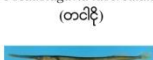
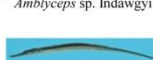
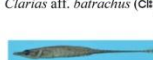















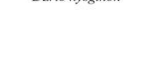









*Channa burmanica*





အင်းတော်ကြီးကန်ဒေသတွင် တွေ့ရှိရသော ငါးမျိုးစိတ်များ (Fishes of Indawgyi Basin)

 <i>Notopterus notopterus</i> (ငါးမယ်)	 <i>Gudusia variegata</i> (ငါးလတ်)	 <i>Amblypharyngodon atkinsonii</i> (ငါးဆလွန်ဖြူ)	 <i>Bangana devdevi</i>	 <i>Brachydanio albolineatus</i>
 <i>Brachydanio cf. kyathit</i>	 <i>Celestichthys choprae</i>	 <i>Cyclocheilichthys sp.</i>	 <i>Devario sp.</i> (ငါးရေငါး)	 <i>Esomus caudocellatus</i> (ငါးရေငါး)
 <i>Esomus danrica</i> (ငါးမော့တော့)	 <i>Garra sp.</i> (ကျောက်ငါးသလဲတို)	 <i>Gibelion catla</i> (ငါးသိုင်းခေါင်းလွ)	 <i>Hypsibarbus myitkyinae</i> (ငါးနမကြီးကြမ်း)	 <i>Labeo boga</i> (ကျောက်ငါးလှ)
 <i>Labeo dyocheilus</i> (ကျောက်ငါးလှမ်းကွက်)	 <i>Labeo nandina</i> (ငါးဒုံတုံ)	 <i>Laubuka fulvescens</i>	 <i>Morulius calbasu</i> (ငါးနက်ပြာ)	 <i>Opsarius barnoides</i> (ငါးအိမ်)
 <i>Oreichthys sp.</i> (ငါးနံ့မ)	 <i>Osteobrama belangeri</i> (ငါးပယ်အောင်)	 <i>Osteobrama cumma</i> (ငါးဆလွန်ဖြူ)	 <i>Osteochilus rostellatus</i>	 <i>Pethia didi</i> (ငါးနံ့မ)
 <i>Pethia erythromycter</i> (ငါးနံ့မ)	 <i>Pethia thelys</i> (ငါးနံ့မ)	 <i>Puntius chola</i> (ငါးနံ့မ)	 <i>Rasbora daniconius</i>	 <i>Rasbora rasbora</i> (ငါးပျက်)
 <i>Rohita rohita</i> (ငါးမြစ်ချင်း)	 <i>Systomus sewelli</i> (ငါးနံ့မကြီး)	 <i>Acantopsis spectabilis</i> (ငါးပျာမြစ်)	 <i>Lepidocephalichthys alkaia</i> , male (left) and female (right) (ငါးသလဲတို)	
 <i>Lepidocephalichthys berdmorei</i> (ငါးသလဲတို)	 <i>Lepidocephalichthys sp.</i> Indawgyi (ငါးသလဲတို)	 <i>Pangio pangia</i>	 <i>Acanthocobitis mandalayensis</i> (ငါးသလဲတို)	 <i>Acanthocobitis sp.</i> Indawgyi (ငါးသလဲတို)
 <i>Physoschistura sp.</i> Indawgyi (ငါးသလဲတို)	 <i>Schistura sp. aff. Malaisei</i> (ငါးသလဲတို)	 <i>Schistura sp. n.</i> Indawgyi (ငါးသလဲတို)	 <i>Homalopteroideis rupicola</i> (ငါးကျောက်ကပ်)	 <i>Mystus cineraceus</i> (ငါးရင်နိုင်း)
 <i>Mystus leucophasis</i> (ငါးနောက်သွား/ငါးပက်လက်)	 <i>Olyra horae</i> (ငါးချော)	 <i>Sperata acicularis</i> (ငါးကျောင်း)	 <i>Ompok pabda</i> (ငါးနုသန်း)	 <i>Pterocryptis berdmorei</i> (တောင်ငါးရူ)
 <i>Wallago attu</i> (ငါးဘတ်)	 <i>Hara longissima</i> (တပိဋ်)	 <i>Pseudogavia tuberculata</i> (တပိဋ်)	 <i>Amblyceps sp.</i> Indawgyi	 <i>Clarias aff. batrachus</i> (ငါးရူ)
 <i>Heteropneustes fossilis</i> (ငါးကျောင်း)	 <i>Oryzias sp.</i>	 <i>Xenentodon cancila</i> (ငါးခေါင်းရိုး)	 <i>Microphis dunckeri</i> (မိကျောင်းသွားကြားတိုဆတ်ငါး)	 <i>Indostomus paradoxus</i> (ရေနယား)
 <i>Monopterus albus</i> (ငါးရုဏ်)	 <i>Chaudhuria cf. caudata</i>	 <i>Macrogathus aureus</i> (ငါးမြေတို)	 <i>Macrogathus cf. morehensis</i> (ငါးမြေတို)	 <i>Mastacembelus armatus</i> (ငါးမြေတို)
 <i>Mastacembelus pantherinus</i> (ငါးမြေတို)	 <i>Parambassis ranga</i> (ငါးရင်စပ်/ငါးမင်းသမီး)	 <i>Parambassis robertsi</i> (ငါးရင်စပ်/ငါးမင်းသမီး)	 <i>Badis corycaeus</i> (ငါးဖျင်းမသလက်ခေါက်)	 <i>Badis cf. kyar</i> (ငါးဖျင်းမသလက်ခေါက်)
 <i>Dario hyssginon</i>	 <i>Anabas testudineus</i> (ငါးမြေ)	 <i>Parasphaerichthys ocellatus</i>	 <i>Trichogaster labiosa</i> (ငါးဖျင်းသလက်)	 <i>Channa gachua</i> (ငါးရံ့ပုတက်)
	 <i>Channa marulius</i> (ငါးရံ့နှိုင်း)	 <i>Channa striata</i> (ငါးရံ့)	 <i>Leiodon cutcutia</i> (ငါးပုစိ/ငါးပုတင်)	





## Workshop reporting form

### Indicators of Resilience in Socio-ecological Production Landscapes and Seascapes: Assessment Workshop Reporting Form

#### I Submission information

	<b>Name</b>	Gurveena Ghataure
	<b>Title</b>	Programme Officer
	<b>Organization</b>	Fauna & Flora International
	<b>What was your / your organization's role in the assessment and/or activities using the indicators?</b>	I was the facilitator and was training our FFI field staff to carry this out in our field sites

#### II Background information

<b>1</b>	<b>Organization name(s)</b>  Who led or facilitated the assessment workshop?	<b>Coordinator:</b> Gurveena Ghataure <b>Facilitator (s):</b> Ngwe Lwin and U Myint Soe Oo <b>Note Taker (s):</b>
<b>2</b>	<b>Venue</b>  Where was the assessment workshop held?	FFI Office in Indawgyi
<b>3</b>	<b>Dates of activities</b>  When did the assessment workshop take place? How long did it last for?  How many days were spent for the preparation of the workshop?	- November 26 <sup>th</sup> and 28 <sup>th</sup> . We spent one and a half days training FFI staff and partners in the field and going through the presentations and SEPLS assessment. We then spent one day in the village conducting the assessment.
<b>4</b>	<b>Purpose of the assessment/Reason for using the indicators</b>  What indicators were selected for use? How were the results utilized/ or will be utilized and incorporated for monitoring and evaluation of your project?	<ul style="list-style-type: none"> <li>For the first trial, we decided to use all indicators, as we felt most of these were relevant.</li> <li>The results have been collected and will be typed up. The discussion gathered from the village was useful and there have been some small changes already taken place.</li> </ul>

#### III Activity information

		-
<b>5</b>	<b>Assessment Workshop Participants:</b>	
	<b>Number of participants</b> (excluding facilitators and note takers)	Total: <u>24</u> persons (Male <u>14</u> persons Female <u>10</u> persons)



	<p>Please indicate if any specific measures were taken in order to ensure that participants of both genders had the same opportunities to participate and speak freely.</p> <p>Please attach a participant list that includes gender, indigenous and/or minority group member, occupation, age.</p>	<p>We have worked in this village before and they have all had Free, Prior and Informed consent for the freshwater project in the area. The village was informed a few weeks before that we conduct this by our staff based near the field site. Attendance was encouraged from women and men in the village and pen discussion was encouraged.</p> <p>List attached in Burmese and translation in English</p>
<b>6</b>	<b>Assessment workshop</b>	
	<b>Landscape Size (Hectares)</b>	Approx. 77699 HA
	<p><b>Activities</b></p> <p>Please describe activities carried out during the assessment workshop, including the introduction (mapping exercises, explanation of concepts and indicators, etc.), scoring, and discussion, field trips etc.</p> <p>Please include or attach the schedule (timetable) of the workshop.</p>	<p>Day 1. (half day) Introduction to FFI staff about the process and the assessment</p> <p>Day 2. (4 hours) Introduction presentation to FFI staff, partners – Friend of Wildlife and the fisheries staff at the office. We went through the purpose of the exercise and the indicators and questions. We did an example of mapping the area and going through the concepts and scores.</p> <p>Day 3: Boat to village, we then split the group into two (mixed men and women) and we then went through the assessment.</p>
<b>7</b>	<b>Overall Results and Outcomes of Assessment Workshop</b>	
	Please explain this within the context of your project.	
<b>8</b>	<b>Lessons learned</b>	
	What were the lessons learned from the use of the Indicators? Please include recommendations for improvement of the Indicators if any.	

#### IV Comments (Optional)

<b>9</b>	If there is any information you would like to share with us in addition to the above please include it here.	
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**Appendix A: Report of resilience assessment in SEPLS**

Questions for scoring	Common understanding of the group	Group Score/trend
<b><i>Landscape/seascape biodiversity and ecosystem protection</i></b>		
<b>1 Landscape/seascape diversity</b>		
Is the landscape/seascape composed of diverse natural ecosystems (terrestrial and aquatic) and land uses?	<ul style="list-style-type: none"> <li>• There is a diverse system, the lake, the forests, the community, fisheries and agriculture</li> </ul>	5 (very high)
<b>2 Ecosystem protection</b>		
Are there areas in the landscape or seascape where ecosystems are protected under formal or informal forms of protection?	<ul style="list-style-type: none"> <li>• Weak law enforcement</li> </ul>	3 (Medium) stays the same
<b>3 Ecological interactions between different components of the landscape/seascape</b>		
Are ecological interactions between different components of the landscape or seascape considered while managing natural resources?	<ul style="list-style-type: none"> <li>•</li> </ul>	5 (very high)
<b>4 Recovery and regeneration of the landscape/seascape</b>		
Does the landscape or seascape have the ability to recover and regenerate after extreme environmental shocks?	<ul style="list-style-type: none"> <li>• There were field flooded in 2015 and when water level went down, this recovered.</li> </ul>	5 (very high)
<b><i>Biodiversity (including agricultural biodiversity)</i></b>		
<b>5 Diversity of local food system</b>		
Does the community consume a diversity of locally-produced food?	<ul style="list-style-type: none"> <li>•</li> </ul>	5 (very high)
<b>6 Maintenance and use of local crop varieties and animal breeds</b>		
Are different local crops, varieties and animal breeds conserved and used in the community?	<ul style="list-style-type: none"> <li>• ~ replacement of industrial agriculture instead of traditional ways, which is not good</li> <li>• ~ less grazing land</li> <li>• ~ reduce growing native species</li> <li>• ~introduce exotic species</li> </ul>	3
<b>7 Sustainable management of common resources</b>		
Are common resources managed sustainably?	<ul style="list-style-type: none"> <li>• ~ establish fish conservation zones</li> <li>• ~ prohibit unsuitable fishing practices</li> <li>• ~no management for grazing lands</li> <li>• ~ to demarcate the lake boundary and to conserve the grassland</li> <li>• ~ to prohibit growing in flooded area after water level is down</li> </ul>	(5) Very high (lake) (2)Low (grazing land) (3) Medium (forest)
<b><i>Knowledge and innovation</i></b>		



<b>8 Innovation in agriculture and conservation practices</b>		
Does the community develop, improve and adopt new agricultural, fisheries, forestry and conservation practices and/or revitalize traditional ones to adapt to changing conditions, including climate change?	<ul style="list-style-type: none"> <li>• changing practices in fishing</li> <li>• ~ use chemical fertilizers and pesticides</li> <li>• ~ those changes however are not good for long term</li> </ul>	4 High
<b>9 Traditions and knowledge related to biodiversity</b>		
Are local knowledge and cultural traditions related to biodiversity transmitted from elders and parents to young people in the community?	<ul style="list-style-type: none"> <li>• ~ fishing practices</li> <li>• ~ traditional culture</li> </ul>	3 Medium
<b>10 Documentation of biodiversity associated knowledge</b>		
Is agricultural biodiversity and associated knowledge documented, accessed and exchanged?	<ul style="list-style-type: none"> <li>• Documentation on paper is good</li> </ul>	1 very low
<b>11 Women's knowledge</b>		
Are women's knowledge, experiences and skills recognized and respected at household, community and landscape/seascape level?	<ul style="list-style-type: none"> <li>• ~ conduct community based team cohesively e.g. village youth team. They are well respected and recognized</li> </ul>	5 very high
<b>Governance and social equity</b>		
<b>12 Right in relation to land/water and other natural resource management</b>		
Does the community have customary and/or formally recognized rights over land, (seasonal) pastures, water and natural resources?	<ul style="list-style-type: none"> <li>• fishers group</li> <li>• ~ CF group</li> <li>• ~ social services group</li> </ul>	5 very high
<b>13 Community-based landscape/seascape governance</b>		
Is there a multi-stakeholder landscape/seascape platform or institution able to effectively plan and manage landscape/seascape resources?	<ul style="list-style-type: none"> <li>• co-operate between village teams</li> <li>• ~ no people who move to other place</li> </ul>	4 high
<b>14 Social capital in the form of cooperation across the landscape/seascape</b>		
Is there connection, coordination and cooperation within and between communities for the management of natural resources?	<ul style="list-style-type: none"> <li>•</li> </ul>	3
<b>15 Social equity (including gender equity)</b>		
Is access to opportunities and resources fair and equitable for all community members, including women, at household, community and landscape/ seascape level?	<ul style="list-style-type: none"> <li>• Women have rights to discuss and have taken the lead sometimes in discussions</li> </ul>	5





<i>Livelihoods and wellbeing</i>		
<b>16 Socio-economic infrastructure</b>		
Is the socio-economic infrastructure adequate for the needs of the community?	•	3
<b>17 Human health and environmental conditions</b>		
What is the general health situation of local people also considering the prevailing environmental conditions?	<ul style="list-style-type: none"> <li>• ~ suffer from kidney diseases due to contaminated water</li> <li>• ~ suffer from diarrhoea in hot season</li> </ul>	3
<b>18 Income diversity</b>		
Are households in the community involved in a variety of sustainable, income-generating activities?	•	3
<b>19 Biodiversity-based livelihoods</b>		
Does the community develop innovative use of the local biodiversity for its livelihoods?	•	3
<b>20 Socio-ecological mobility</b>		
Are households and communities able to move around between different production activities and location as necessary?	•	1

**Appendix B: Report of discussion about potential action plans in SEPLS**

Priority topics of discussion identified in the group were as follows:

1. Agriculture land near lake – better boundaries and demarcation to prohibit growing in flooded area after water level is down
- 2.
- 3.

Topic	What needs to be done?	Who will do it?	Who will lead it?	External support
	•			
	•			
	-			





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