Internal Report

ICIMOD

FOR MOUNTAINS AND PEOPLE

Towards Developing the Landscape Initiative for the Far-eastern Himalaya (Hi-LIFE Initiative)

Report on the Fifth Regional Consultation for Developing the Programme Design and Implementation Plan

15–18 December 2014, Kathmandu, Nepal

AUSTRIAN DEVELOPMENT COOPERATION

About ICIMOD

The International Centre for Integrated Mountain Development, ICIMOD, is a regional knowledge development and learning centre serving the eight regional member countries of the Hindu Kush Himalayas – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal. Globalisation and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people. ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues. We support regional transboundary programmes through partnership with regional partner institutions, facilitate the exchange of experience, and serve as a regional knowledge hub. We strengthen networking among regional and global centres of excellence. Overall, we are working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream – now, and for the future.

ICIMOD gratefully acknowledges the support of its core donors: the Governments of Afghanistan, Australia, Austria, Bangladesh, Bhutan, China, India, Myanmar, Nepal, Norway, Pakistan, Switzerland, and the United Kingdom.

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Foreword

ICIMOD and its country partners recognized the conservation and cultural importance of the Landscape Initiative for the Far-eastern Himalaya (Hi-LIFE Initiative) in 2009 and initiated consultations for an integrated conservation and development initiative. The Far-eastern Himalayan Landscape (FHL) is of high biodiversity value, with a high level of endemism and a diverse cultural heritage. The International Centre for Integrated Mountain Development (ICIMOD) and its three country partners from China, India, and Myanmar have, through a series of consultative processes, laid a firm foundation for the implementation of the Hi-LIFE Initiative. The Regional Cooperation Framework, country-specific feasibility studies, conservation and development strategies (CDSs), and comprehensive environmental and socioeconomic monitoring strategies (CESMSs) of the partner countries have all been completed.

The FHL lies at the confluence of three global biodiversity hotspots, namely, the Himalayan, Indo-Burman, and the Mountains of Southwest China hotspots, and was earlier referred to as the 'Brahmaputra-Salween Landscape'. However, ICIMOD and the country partners felt that the name of the landscape inappropriately reflected the geographic and thematic relevance of the initiative. In addition, the geographic focus of the initiative only included a small segment of the landscape in China, India, and Myanmar and not the entire area through which these two rivers flow. Likewise, the thematic focus was not the river or river basin management, rather on a landscape approach for holistic conservation and sustainable development. Thus, during the Fifth Regional Consultation held in Kathmandu, Nepal from 15–18 December 2014, the partners sharing the landscape and ICIMOD jointly agreed to rename the landscape the '**Far-eastern Himalayan Landscape**', and the initiative the '**Landscape Initiative for the Far-eastern Himalaya**' or **Hi-LIFE Initiative**.

The 2014 consultation in Kathmandu was also significant in terms of detailing the implementation plan design for the initiative. The exercise was intensive and used participatory impact pathway analysis. At the end of the four-day consultation, the participants drafted elements of the implementation plan, setting out a clear result chain of outputs and impacts, as well as interventions for change. The implementation plan will be further refined by country-specific action plans based on specific strategies, as worked by the country partners. This consultation report documents all essential view points and opinions expressed by the participants during the group work and plenary sessions, and we hope it serves as a reference document for refining and concretizing the future implementation action plan for the Hi-LIFE Initiative.

Rajan Kotru
Programme Manager
Transboundary Landscape Regional Programme
ICIMOD

Acronyms and Abbreviations

ABS	access and benefit sharing
AP	Arunachal Pradesh, India
BSL	Brahmaputra-Salween Landscape
BSLCDI	Brahmaputra-Salween Landscape Conservation and Development Initiative
CAS	Chinese Academy of Sciences
CBO	community-based organization
CDS	conservation and development strategy
CESMS	comprehensive environmental and socioeconomic monitoring strategy
DONER	Ministry of Development of North Eastern Region, India
ECD	Environmental Conservation Department, Myanmar
FD	Forest Department (India or Myanmar)
FHL	Far-eastern Himalayan Landscape
GBPIHED	GB Pant Institute of Himalayan Environment and Development
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GNNR	Gaoligongshan National Nature Reserve
Hi-LIFE	Landscape Initiative for Far-eastern Himalaya
HKH	Hindu Kush Himalayas/Himalayan
ICIMOD	International Centre for Integrated Mountain Development
IIRS	Indian Institute of Remote Sensing
KIB	Kunming Institute of Botany (Chinese Academy of Sciences)
KIZ	Kunming Institute of Zoology (Chinese Academy of Sciences)
KMC	knowledge management and communication
LCI	local community and institution
M&E	monitoring and evaluation
MoECAF	Ministry of Environmental Conservation and Forestry, Myanmar
MoEFCC	Ministry of Environment, Forests and Climate Change, India
MoHT	Ministry of Hotels and Tourism, Myanmar
MoST	Ministry of Science and Technology, China
NGO	non-governmental organization
NTFP	non-timber forest product
NWCD	Nature and Wildlife Conservation Division, Myanmar
PES	payment for ecosystem services
REDD	Reducing Emissions from Deforestation and Forest Degradation
RGU	Rajiv Gandhi University, Arunachal Pradesh, India
TISS	Tata Institute of Social Sciences
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature
YAAS	Yunnan Academy of Agricultural Sciences
YASS	Yunnan Academy of Social Sciences


PROBLEM.
Causes
What is
Determinants
What is the root cause
Loss of Agrobiodiversity ①
Lack of awareness for agribiodiversity mainatenee
Lack of integrating traditional practice + modern Technology
Lack of No incentives for farmers Traditional Integrated Farming"
Lack of ST to enhance traditional production & Value addition
→ Govt policy short term
→ Economic
+ Lack of E. imminent aspect policy
Limited livelihood opportunities ②
• Lack of capacity among farming community to capitalize on opportunities
Lack of PES need be improved to reduce wild life impacts
• A Lack of access to resources/info (Marginality)
Inadequate Lack of Mechanism of BS & Participation
• Geographical/ Topographical constraint + Develop infrastr
• Lack of pro-poor policies institutions
Habitat Fragmentation (3)
Haphazard Development Infrastructure Dam/Roads
• Isolated PAs and lack of eco Habitat Connectivity
• Deforestation (logging timber) Degradation
Competition for Land use Farmer – herder – conservationist
-Lack of integrated planning


Fifth Regional Consultation for Developing Programme Design and Implementation Plan

Background

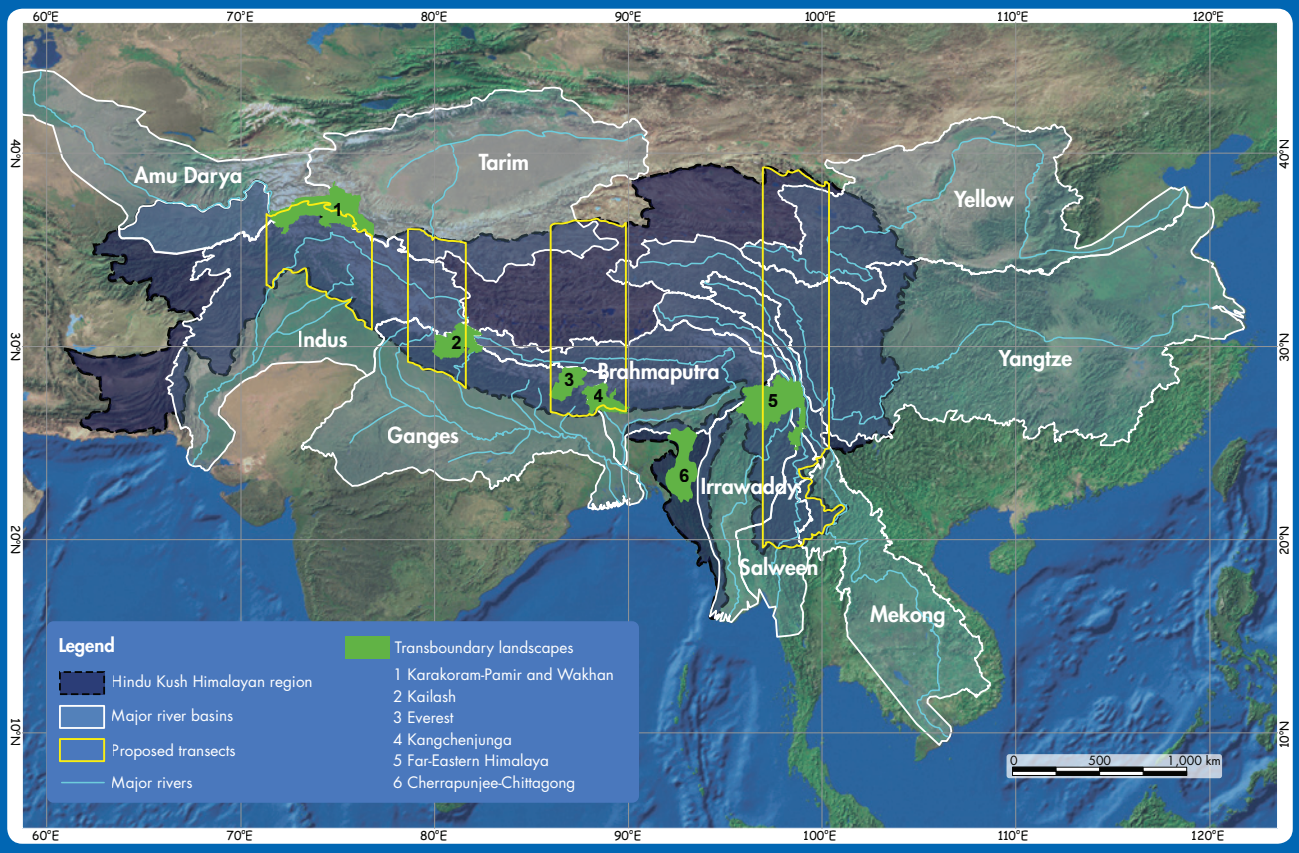
Introduction

ICIMOD and its partners in the eight regional member countries of the Hindu Kush Himalayan (HKH) region have identified six transboundary landscapes for programmatic cooperation from west to east across the region, namely, the Karakoram-Pamir and Wakhan, Kailash, Everest, Kangchenjunga, Far-eastern Himalayan, and Cherrapunjee-Chittagong landscapes (Figure 1). Simultaneously, from north to south, the trans-Himalayan transects cover most of the ecoregions and unique cultural landscapes in the region. The Transboundary Landscapes Regional Programme is strengthened by the conservation and development initiatives for these landscapes, which contribute to the outcome that all of the ecologically and socio-culturally significant landscapes are better conserved and managed for sustaining ecosystem goods and services to improve the lives and livelihoods of the people.

The Far-eastern Himalayan Landscape was earlier known as Brahmaputra-Salween Landscape (BSL). The name was changed at this regional consultation, where it was decided to call the initiative the Landscape Initiative for the Far-eastern Himalaya (Hi-LIFE Initiative). The previous names, the Brahmaputra-Salween Landscape and Brahmaputra-Salween Landscape Conservation and Development Initiative (BSLCDI), may be used when referring to the past proceedings of the Hi-LIFE Initiative prior to the name change.

The FHL, the easternmost of the six transboundary landscapes in the Himalayas, is one of the richest in biodiversity, traditions, and cultures in the region. It is shared by three countries: China, India and Myanmar. Recognized as a 'Centre for Plant Diversity' and an 'Eastern Asiatic Regional Centre for Endemism', it is also at the convergence of three global biodiversity hotspots, namely, the Himalayan, Indo-Burman, and Mountains of Southwest China hotspots. This landscape contains a cluster of seven protected areas, which cover most of the wilderness areas within the landscape, with several ecoregions and taxa of a transboundary nature. The Namdapha National Park

Figure 1: **Transboundary landscapes and transects of the Hindu Kush Himalayan region**



and Tiger Reserve in India is contiguous with the Northern Mountain Forest Complex of Myanmar, which is a tract of five protected areas in Myanmar that run from the border with India to China, which is, in turn, contiguous with Gaoligongshan National Nature Reserve (GNNR) in Yunnan Province through the Hkakaborazi National Park to the east. The FHL is located along the easternmost extent of the Himalayas and the westernmost extent of the Hengduan Mountains, between the Brahmaputra (Yarlung Tsangpo in China) and Salween (Nujiang in China, and Thanlwin in Myanmar) river systems (Figure 2).

The FHL spans an area of 71,452 km2 across China, India, and Myanmar, covering 22%, 12%, and 66% of the total area of these countries, respectively, with the Myanmar portion adjoining the India portion to the west and the China portion to the east. The FHL includes the Namdapha Tiger Reserve, the Namdapha National Park, and adjoining buffer areas in Changlang district in India; seven townships in northern Myanmar (Namyun in Sagaing Region, and Tanai, Sumprabum, Putao, Machanbaw, Nawngmun, and Khaunglanphu in Kachin State); and three segments of the Gaoligongshan National Nature Reserve together with the intervening areas between the Myanmar border and the Nujiang (Salween) river.

The key challenges related to the conservation of biodiversity and sustainable development in the landscape revolve around resource extraction, habitat fragmentation, haphazard infrastructure development, limited awareness of the role of biodiversity and its value from an ecosystem services perspective and of the linkages between ecosystems, biodiversity, and human-wellbeing, inadequate participation of people in conservation, limited understanding of the extent of climate change vulnerability, and incongruent land use policies and governance mechanisms, including related to protected area management. Several issues – such as the poaching of wild animals and over extraction of medicinal plants, rare ornamentals, timber, and minerals for trade – are transboundary in nature, and therefore, require regional cooperation.

The need for a regional approach and a collaborative effort to optimize conservation and development activities, and to leverage efforts for greater impact have been recognised by the three countries involved. The Hi-LIFE

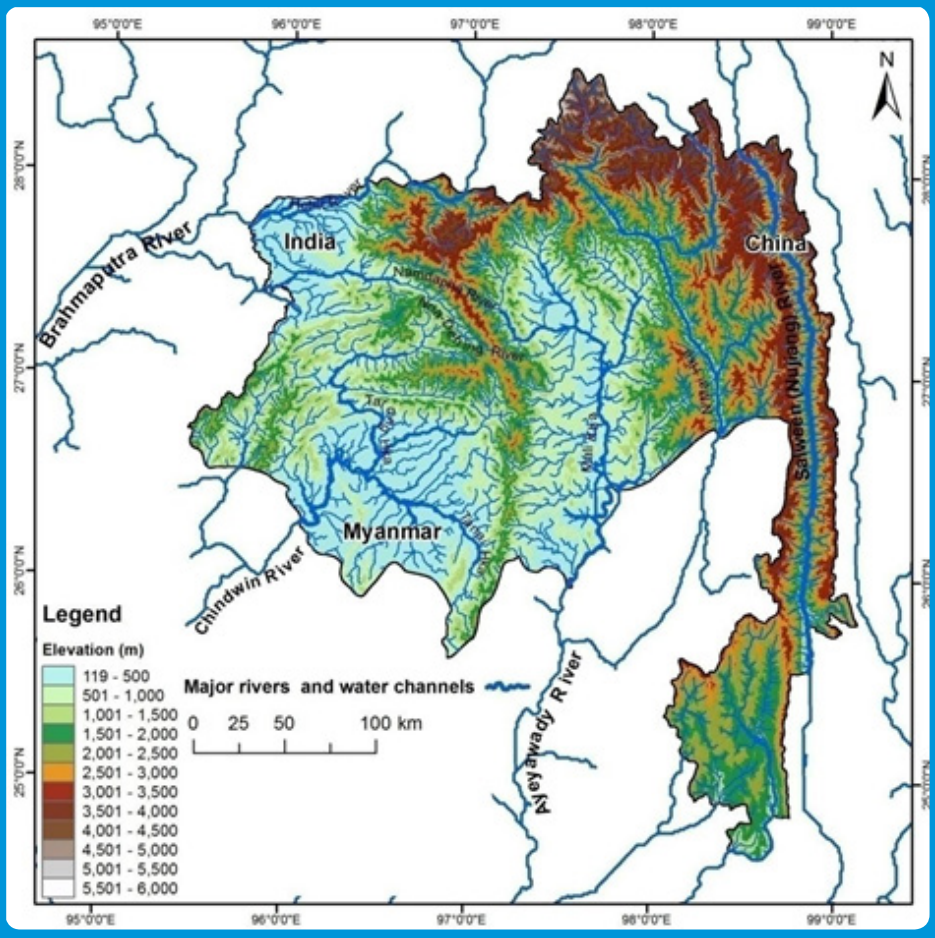


Figure 2: **The Far-eastern Himalayan Landscape**

Initiative, helped by the experience gained by ICIMOD over recent years in other landscapes in the HKH region, especially the Kailash Sacred Landscape Conservation and Development Initiative, is designed to enhance cooperation among the three countries sharing the landscape.

Laying the groundwork for regional collaboration

The following collaborative and consensus building efforts have strengthened the basis of regional cooperation among the three countries sharing the FHL:

2009–2012 (Inception stage): The prospects and possibilities for regional cooperation among the three countries were explored, experiences from other landscapes shared, pre-feasibility assessment undertaken, and focal institutions in each country identified.

2013: A country-specific comprehensive feasibility assessment was carried out through a consultative processes and a geographic working boundary for the landscape was delineated.

2014: A Synthesis of the Regional Feasibility Assessment Report was prepared to give regional relevance to the landscape, excluding internal country administrative boundary demarcations in the landscape boundary. Country-specific conservation and development strategies (CDSs) and comprehensive environmental and socioeconomic monitoring strategies (CESMSs) were also prepared for each county and ICIMOD facilitated a consultation on a Regional Cooperation Framework, during which the Regional Cooperation Framework Document was jointly prepared and agreed on by the country partners (endorsement by respective focal institutions is in progress).

Objectives of the consultation

The objective of this regional consultation was to draft an implementation plan for the Hi-LIFE Initiative for next five years (2015–2020) based on shared regional priorities and the country-specific priorities outlined in the respective country-specific strategic documents, as well as to consolidate the programme design, based on a thorough understanding of the result chain and impact pathways for the initiative. The idea was to link the integrated conservation and development actions in the initiative with the higher objectives of managing the transboundary landscape and to clarify the ultimate purpose of the regional Hi-LIFE Initiative. The consultation also shed light on the value the Hi-LIFE Initiative adds in terms of improving the existing landscape context and addressing the challenges and how, through defining indicators, performance and achievements can be measured and monitored. The consultation also looked at how other organizations and stakeholders can help bring about this change.

Organization of the consultation

The consultation took place from 15–18 December 2014 at Hotel Himalaya in Kathmandu, Nepal. About 39 representatives from partner organizations in China, India, and Myanmar, and ICIMOD attended. The opening session started with welcome remarks by Dr Rajan Kotru, Programme Manager for the Transboundary Landscapes Regional Programme. He emphasised that the Hi-LIFE Initiative had reached an important milestone with the completion of start-up phase activities. He emphasized that now all the hard work put into the planning will have to be converted into implementable actions. He stressed the need for rigorous planning and added that "planning without action is futile; action without planning is fatal".

Dr Eklabya Sharma, Director of Programme Operations at ICIMOD made some opening remarks and facilitated the session on 'Renaming of the Initiative'. Representatives from each country made their remarks, followed by a summary of progress of the initiative by Ms Bandana Shakya, Associate Coordinator for Hi-LIFE at ICIMOD.

Dr Rajan Kotru then outlined the objectives and expected outcomes of the regional consultation. The technical sessions mainly focused on understanding the impact pathways, which helped link the objective of the initiative to the larger goal of transboundary landscape management. The mapping of actors and stakeholders was done to examine the influence and role of other players in the area. There were also dedicated sessions on the impact and outcome logic and result based monitoring and evaluation (RoME). At the end of the consultation country partners presented their country-specific strategies for conservation and development and for research and long-term monitoring, so that these could be aligned while working out the activities plan for the initiative.

The concluding session presented the way forward and reflections from the country partners. It also touched on governance mechanisms and a communication strategy for the initiative.

Opening remarks

Dr Eklabya Sharma, Director of Programme Operations at ICIMOD, in his opening remarks, gave a historical overview of the Hi-LIFE Initiative and elaborated on its journey, which started in 2008 at the International Mountain Biodiversity Conference. He highlighted the objective of the initiative, which is the good governance of natural resources, addressing both nature and people together. He also emphasised the need to bring governments and policymakers on board for transboundary cooperation across different sectors and at different levels. Stressing the importance of the science-policy-practice interlink, he reiterated that the initiative seeks to improve on science from the landscape, while also ensuring that the knowledge generated is used to inform decision making, thereby leading to responsible natural resources management and adaptation practices in the landscape. He then noted that the consultation should strive to produce a practical and achievable programme design for the initiative and that understanding the result chain along the impact pathway is expected to help set clear result milestones for the initiative.

Prof Yang Yongping, Vice Director of the Kunming Institute of Botany (KIB), speaking on behalf of the Chinese participants, mentioned the importance of the landscape approach and of striking a balance between biodiversity and livelihoods. He cited examples from China where communities need for natural resources were overlooked, which should be avoided in future and find mechanisms to work together for better biodiversity management.

Dr Pitamber Dhyani, Director of the GB Pant Institute of Himalayan Environment and Development (GBPIHED), who spoke on behalf of the partners from India, stressed India's commitment to the initiative, its aim to the link between science-policy-practice, and urged everyone to discuss ideas for promoting cooperation in the landscape.

Dr Naing Zaw Htun, Assistant Director of the Nature and Wildlife Conservation Division, Forest Department of the Ministry of Environmental Conservation and Forestry, Myanmar, agreed that local people's opinions should be taken into account while promoting biodiversity management in the landscape. He stated that, previously, Myanmar focused only on maintaining protected areas, however, as most of Myanmar's population are dependent on natural resources, he stressed that it is important that biological and socioeconomic issues are approached in parallel.

Progress summary

Ms Bandana Shakya, Associate Coordinator of Hi-LIFE, ICIMOD, presented an overview of the initiative giving its historical background, the rationale for the initiative, and the progress made during the start-up phase. She highlighted the timeline for coordination among the partner countries from the inception stage to the completion of the start-up phase. An overview of the process for the preparation of country-specific strategic documents (feasibility assessments, conservation and development strategies, and comprehensive environmental and socioeconomic monitoring strategies) was shared, including the joint efforts of ICIMOD and the three country partners in preparing the Regional Cooperation Framework. She also stressed the importance of the biological and socio-cultural heritage of the landscape, which forms the basis of the initiative. The rationale for the landscape approach is its ecological contiguity, as the landscape spans the political boundaries of three countries, the common conservation and development priorities of the three countries sharing the landscape (such as the need for the parallel improvement of ecosystems and livelihoods for local communities), the vulnerability of communities and ecosystems to various drivers of change, and the prospects for knowledge generation through collaborative research and long-term monitoring. Mentioning the existing country-specific and bilateral efforts for conservation and development across the landscape, Ms Shakya elaborated on the avenues for regional cooperation for promoting integrated ecosystem management to generate ecosystem-based livelihoods and co-benefits.

Expected outcomes

Dr Rajan Kotru, Programme Manager of the Transboundary Landscapes Regional Programme, ICIMOD, outlined the objectives and expected outcomes of the regional consultation, which are to:

- Refresh the initiative with a landscape approach
- Revisit the landscape and initiative's name
- Develop the programme design with clear goals and performance indicators
- Develop a five-year implementation plan
- Finalize the governance mechanisms and communication ethics for the initiative

Dr Kotru said that achieving impact through the landscape approach to conservation and development is possible through multiple pathways and is essential to work out the programme design and ensure that the results are objectively measurable and linked to wider impacts. Dr Kotru also encouraged the participants to develop a clear vision for 5, 10 and 20 years and work out the activities with systematic indicators. He stressed the need to leverage resources from a wide range of partners and to generate visible impacts in pilot sites, so that the learning can be scaled up as a model for the integrated approach. Dr Kotru also said that we need to ensure effective communication among all of the partners of the initiative for better understanding of the issues and challenges.

Renaming the initiative

Dr Eklabya Sharma led the discussion on changing the name of the initiative and the landscape and elaborated on the rationale behind the need for this change. Firstly, he explained that the two rivers, the Brahmaputra and Salween, flow across a large geographic area and are not restricted to this transboundary landscape. The use of the names of these rivers in the landscape and initiative name, thus, obscures the geographic focus of the landscape. Secondly, all other transboundary initiatives in the HKH region have been name after mountains, whereas this one was named after river systems, which connotes a river basin management approach instead of a landscape approach to conservation and development.

Several names were proposed and implications were discussed among the participants. It was decided that the new name of the landscape would be the Far-eastern Himalayan Landscape (FHL) and the initiative would be called the Landscape Initiative for the Far-eastern Himalaya (Hi-LIFE Initiative). Other names proposed for discussion were: Biohotspots Tri-junction Landscape Conservation and Development Initiative (BTLCDI), which provided the least change in the acronym, Gaoligong-Hkakabo-Daphabum Landscape Conservation and Development

Initiative (GKDLCDI) after the names of the highest peaks from the three country areas, Far Eastern Himalayan Biohotspots Landscape (FABLE), Biohotspots Tri-junction Landscape Initiative (BIOTRIL Initiative), Himalayan Far East Transboundary Landscape Initiative (Hi-FEAST Initiative), and Himalayan-Hengduan Biohotspots Landscape Initiative (High-Bon Initiative), after the two significant mountains in the landscape. The idea behind revisiting the name and changing it was to clearly reflect the geographic focus of the landscape; provide relevance to the richness of life in the landscape – both in terms of biodiversity and people's culture and traditions; give the feel of a transboundary landscape initiative; and highlight the objective of bettering the natural capital and lives of people in the landscape.

Technical sessions

Five technical sessions were conducted over the four days as follows:

- Understanding and linking the initiative to the bigger picture of transboundary landscape management: This session introduced ICIMOD's monitoring and evaluation approach and Transboundary Landscapes Result Framework, as well as the theory of change and the impact pathways concepts to participants.
- Mapping of actors and stakeholders: In this session, a range of actors and stakeholders were identified and an actors map produced based on the outputs and outcomes desired and guided by the strategic focus of the initiative.
- Result chain logic and risk assessment: The session focussed on concretizing and linking the long term vision, objectives, and output of the initiative, identifying critical issues to be addressed.
- Monitoring and evaluation (M&E) planning: This session clarified the differences between monitoring and evaluation and their significance in relation to the implementation programme design of the Hi-LIFE initiative.
- Understanding country-specific strategies and activity planning for next five years: This session elaborated on country priorities for managing the respective portions of the landscape, based on the country-specific strategies.

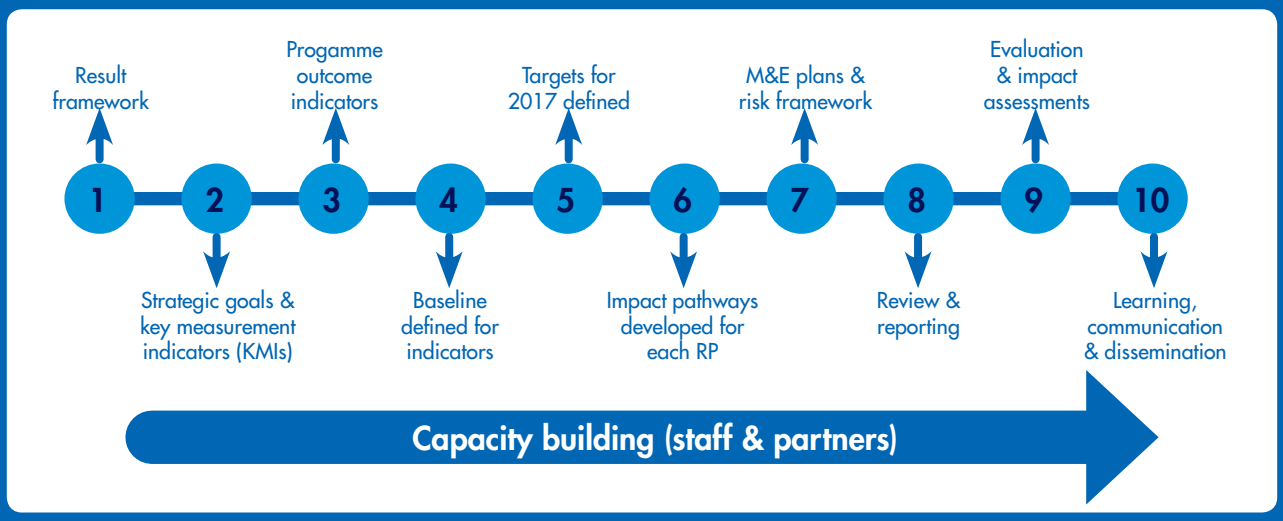
ICIMOD's Strategic Programming, Monitoring and Evaluation Unit, led by Farid Ahmed, with Ghulam M Shah and Lalu M Kadel, facilitated the technical sessions. The sessions were structured with an interactive presentation on the topic followed by group work and plenary sessions. The components that contributed to the implementation plan design through participatory impact pathway analysis were:

- Situation/problem analysis
- Actors mapping
- Outcome logic and risk assessment
- Result chain
- Development of indicators for impact, outcomes, and outputs
- Result-based M&E plan development
- Activity planning

ICIMOD monitoring and evaluation approach and transboundary programme design

Mr Farid Ahmad, Head of Strategic Planning, Monitoring and Evaluation, ICIMOD, presented an overview of ICIMOD's M&E approach to set the stage for the Hi-LIFE Initiative implementation plan design. He elaborated on the rationale behind impact pathway analysis, namely, to develop a shared understanding of the programme vision and strategies, to understand pathways of change under realistic situations, and to develop clear action plans. He explained the 10 steps (Figure 3) used by ICIMOD to develop its M&E system.

Figure 3: **Monitoring and evaluation system used by ICIMOD**



Mr Ahmad explained the context for an impact-oriented M&E system, moving from sphere of control to limited sphere of influence to fairly uncertain sphere of interest. This pathway implies that achieving impacts through a series of result chains is challenging as it calls for non-linear partnership development and change processes, influenced by an attribution gap and missing middle influences. The relationship between the result-oriented logic model and actor-oriented network maps was also explained, which helped shed light on the dynamic and evolutionary relationships between tiers of actors, stakeholders, and beneficiaries, which are necessary to achieve the long-term goal of the Hi-LIFE Initiative and achieve results at different stages of the impact pathway. Mr Ahmad also shared some examples of impact pathway models that highlight the relationship between results and the means of achieving them.

The second section of this presentation was on understanding the result framework for the Transboundary Landscape Regional Programme. The result chain for the programme revolved around the goal (20 years) that transboundary landscapes are better conserved and managed for sustaining ecosystem goods and services to improve livelihoods and enhance ecological integrity, economic development, and socio-cultural resilience to environmental changes. The direction of change was explained including how partners and the institutional set up can influence the change process along the result chain for the programme. The multi-level deliverables and outcomes and their linkages to stakeholders' roles and partnerships development at different levels were touched on. The presentation highlighted the importance of developing a programme implementation plan through a thorough understanding of theory of change, impact pathways, and partners' networks and relationships, supplemented by result-oriented M&E plans.

Theory of change and impact pathways

Mr Ghulam Muhammad Shah from Strategic Planning, Monitoring and Evaluation, ICIMOD gave an historical perspective on the emergence of 'theory of change'. He also elaborated on the process of participatory impact pathway analysis (PIPA), which the participants will explore later in the consultation. Theory of change is useful in evaluating complex development programmes for the impacts that they generate and to determine whether or not the intended objectives of the programme has been achieved. The idea is to understand and steer the early and mid-term changes that are needed to generate long-term programme impact. Mr Shah shared several definitions of theory of change, as defined by development practitioners, and elaborated on how ICIMOD intends to incorporate this into its various initiatives. The theory of change is a process that helps define collective vision and explicit actions to achieving the desired vision, therefore contributes to defining how an intervention can contribute to different levels of a result chain hierarchy. The emphasis is more on understanding the context within which the programme is operating and being explicit about the assumptions and risks towards achieving the results.

This presentation set the stage for group work on participatory impact pathway analysis, which comprised answering questions such as: What are the major problems the intervention is going to address? What are the causes of the problems? What will the specific intervention achieve in a given period of time? Which stakeholders will be playing what roles? And, finally, what are the changes we want to see as a result of the programme interventions?

Problem tree analysis

The problem analysis showed how a programme can achieve its goal by addressing a series of problems connected logically by a cause and effect relationship. Starting from the root cause problem, stakeholders identify the broader problems and the causes of the problems that the programme will address. This process begins with developing a problem tree (Figure 1), which links the root cause problem to the problems that the programme will directly address.

The problem tree was developed using the following 5 steps:

Step 1. Recall the situational analysis carried out in each country (Myanmar, China, and India)
Step 2. Identify three CORE problems
Step 3. Identify two CAUSES for each of the core problems identified in step 2
Step 4. Identify the ROOT causes for the problems identified in step 3
Step 5. Highlight the causes of the problems in step 4 that the Hi-LIFE initiative can directly address

Table 1: **Summary of the problem tree exercises as presented by country-wise groups**

Country	Core problem	Two causes of this core problem	Root causes that the Hi-LIFE Initiative seeks to address
China	Loss of agrobiodiversity	• Lack of awareness about agro-diversity maintenance • Lack of integration of traditional and modern farming technologies	• Lack of science and technology to enhance traditional production • Inadequate value addition of traditional crops • Lack of efficient mechanisms for ex-situ conservation
	Limited livelihood opportunities for communities	• Lack of innovative livelihoods and economic development opportunities • Lack of improved payment for ecosystem services (PES) mechanisms to reduce wildlife-human impacts	• Lack of access to resources/information and access and benefit sharing (ABS) mechanisms • Lack of capacity among farming communities to explore different livelihoods options
	Loss of natural biodiversity	• Habitat fragmentation • Land use change	• Unplanned and haphazard development infrastructure development • Isolation of parks and lack of natural connectivity between parks • Degradation of habitat due to unsustainable land use practices • Lack of pro-poor policies and institutions • Lack of integrated land use planning • Constraints due to difficult access • Government policies prioritize economic growth
India	Degradation of natural habitat	• Unsustainable land use and management of resources • Unsustainable extraction of resources	• Increased population and unplanned land use • Illegal wildlife and medicinal plant trade • Transboundary people migration • Ineffective implementation of existing key policies at grass-root levels
	Lack of sustainable livelihood options	• Unproductive and unsustainable farming practices • Lack of awareness and skills for alternative livelihoods	• Lack of clear cut land tenure and policies • Inadequate extension and support services • Disparity in recognition of community rights and identity
	People-policy-practice disconnect	• Lack of involvement of grass-roots people in policy formulation, planning, and implementation • Lack of appropriate mechanism for ABS • Conflicts within government policies, and between government policies and community customary practices/rights	• Lack of involvement of grass-root people in policy formulation, planning and implementation • Lack of appropriate mechanism for ABS • Conflicts within government policies, and between government policies and community customary practices/rights
Myanmar	Resource degradation	• Natural capital not considered in development planning • Improper management of natural resources	• Lack of resources to conduct proper economic valuation of natural resources; low awareness on part of policy makers • Lack of national land-use policies and land-use management plans • Lack of mainstreaming of natural resources management • Unsustainable use of existing natural resources followed by limited economic opportunities for alternative livelihoods
	Lack of effective management of protected areas	• Limited technical skills and institutional capacity for protected areas management • Poor coordination among relevant stakeholders • Inadequate grass-root support for conservation	• Limited capacity building programmes • Limited relevant human and institutional resources • Weak coordination body/ mechanism • Limited Communication, Education, Participation and Awareness (CEPA) Programme • Limited incentive mechanisms for communities
	Limited livelihood development opportunities for communities	• Limited knowledge and information on livelihoods • Poor market access • Insufficient basic infrastructure and skills	• Poor access to information and outreach services • Limited exposure to, and ideas on, alternative livelihood options • Insufficient basic infrastructure (transportation, communication, education, and health services and networks)

Other key issues and challenges as identified in the country-specific strategies are provided in Table 2).

Table 2: **Summary of key issues and challenges as identified in the country-specific Conservation and Development Strategies**

Country	Broad challenges	Key issues
China	• Biodiversity rich habitats, but poor people • Poor public services and limited livelihood options • Balancing conservation and development actions • Vulnerability due to climate change • Promoting participatory community-based conservation	• Overharvesting of medicine plants and ornamental orchids • Habitat fragmentation and destruction • Transboundary forest fires • Invasive plants • Illegal trade, poaching, and hunting • Monitoring of climate change impacts on biodiversity, illegal hunting, overharvesting, and transboundary trade • Compensating for conservation and ecosystem services and wise use of natural resources and cultural heritage
India	• Defining conservation targets • Understanding the conservation and development trade off • Building participatory conservation alternatives • Incorporating climate change dimensions • Develop a functional network of institutions/communities	• Degradation of natural habitats and loss of biodiversity • Erosion of genetic diversity • Conversion of forest land for developmental activities • Forest fires due to shifting cultivation • Illegal and unsustainable harvesting of non-timber forest products (NTFPs) • Retreat of glaciers and impact on high altitude wetlands • Shortage of water (drying up and declining discharge of natural springs) • Shortening of jhum cycles (fallow period), declining fertility and production, loss of genetic resources and declining interest in, and erosion of traditional knowledge and practices, lack of technologies • Disinterest in, and alienation from, policies and programmes • Deteriorating cultural institutions and social capital
Myanmar	• Deforestation and resource degradation • Unsustainable agriculture and land-use practices • Insufficient environmental safeguards • Pollution • Poverty and food insecurity • Climate change • High vulnerability to climate change • Land degradation • Pollution and erosion due to unsustainable land use impacts water resources • Unsustainable land use • Loss of ecosystem services • No monitoring of effectiveness of management • Environmental hazards affect both natural ecosystems and communities	• Increased resources demand • Lack of holistic and comprehensive management plan for protected areas • Inadequate grass-roots support for conservation • Undervaluation of biodiversity • Uncoordinated mega development projects • Poor recognition of customary rights in resource conservation • Insufficient basic infrastructure • Poor market access • Low job opportunities • Illegal hunting and wildlife trade • Limited climatic data • Limited capacity and infrastructure • Over exploitation/illegal extraction of natural resources • Knowledge and financial resources gap • Limited information on extent and status of ecosystem services and their values • Undervaluation of biodiversity, ecosystems, and ecosystem services • No capacity for valuing ecosystems, e.g., in planning development projects • Lack of documents on traditional resource use • Poor understanding of traditional rights to land and natural resources

Objective tree analysis

The objective tree analysis shows how an issue or a challenge identified in the problem tree can be converted into an opportunities to address the issue or challenge. During the group work, the country-wise groups identified the elements of the three core problems and the causes driving them.

Table 3: **Summary of the objective tree analysis (as presented by country-wise groups)**

Country	Core problem	Objective statement of the cause	Objective statement of how to address the root cause
China	Loss of agrobiodiversity	• promotion of adequate awareness of agrodiversity maintenance • Effective integration of traditional and modern farming technologies	• Promote integration of traditional farming knowledge into modern farming practice (value additions/bio-prospecting) • Create farmers' associations (institutions) to promote traditional agrodiversity resources and practices • Develop comprehensive inventory and ex-situ preservation mechanisms (research)
	Limited livelihood opportunities for communities	• Opportunities for Innovative livelihood and economic development opportunities available • Promotion of options such as PES to reduce wildlife-human impacts	• Strengthen the capacity of farming community and field officials for innovative livelihoods (fruit, medicinal and aromatic plants, NTFPs, livestock, ecotourism) • Promote information access, regional learning and exchange, value addition, processing, and marketing • Enhance community benefits through contract conservation and the commercialization of traditional resources and knowledge
	Loss of natural biodiversity	• Habitat fragmentation checked and avoided • Land use change well-planned	• Promote community-based integrated and inclusive land use planning (between different sectors and different stakeholders) • Promote community conservation through contracts • Conduct geo-spatial assessments for corridor development • Establish co-funding mechanism
India	Degradation of natural habitat	• Sustainable land use and management of resources • Sustainable extraction of resources	• Reduce dependence on forests and enhance sustainable livelihood options and opportunities for the increasing human population • Conduct policy analysis and strategic environmental assessments (SEAs) in developmental projects and promote green technology • Enhance transboundary cooperation and collaboration to regulate, monitor, and share information on (transboundary people migration, illegal wildlife trade, and information sharing for future mitigation and adaptation thereof)
	Lack of sustainable livelihood options	• Productive and sustainable farming practices • Adequate awareness and skills for alternative livelihoods	• Conduct evidence-based advocacy activities to facilitate the government to formulate appropriate policies to address issues related to land • Promote eco-friendly productive farming system • Enhance awareness and skill development, capacities • Participatory policy formulation and facilitation for enactment of clear cut land policies • Convergence of activities and services • Promote need-based low-cost technologies
	People-policy-practice disconnect	• Involvement of grass-roots people in policy formulation, planning, and implementation • Appropriate mechanism for ABS developed • Government policies and community customary practices/rights	• Facilitate the convergence of government policies and customary practices • Initiate participatory policy formulation processes • Develop enabling policies for ABS processes • Enhance awareness and participation • Strengthen and develop institutions and networks • Develop a comprehensive knowledge management system
Myanmar	Resource degradation	• Natural capital integrated into development planning • Proper management of natural resources	• Enhance awareness of policy makers • Undertake the economic valuation of natural resources • Mobilize resources are for the proper economic valuation of natural resources • Recognize customary rights in resource management • Put national land use policies and management plans in place • Mainstream natural resources and biodiversity in sectorial planning • Promote sustainable use of existing natural resources • Increase opportunities for alternative livelihood options
Myanmar	Lack of effective management of protected areas	• Strengthened technical skills in natural resources management • Improved coordination among relevant stakeholders • Adequate grassroots support for conservation	• Improve institutional capacity of protected area management • Implement more capacity building programmes • Ensure that the relevant human and institutional resources are in place • Ensure that proper coordination mechanisms are in place • Implement effective Communication, Education, Participation and Awareness programmes • Put in place proper incentive-based mechanisms for communities
	Limited livelihood development opportunities for communities	• Improved knowledge and information on livelihoods • Adequate market access and linkages	• Ensure adequate and proper access to information and outreach services • Ensure adequate opportunities for exposure to ideas on alternative livelihood options • Provide sufficient basic infrastructure support (e.g., for transportation, communication, education, and health services and networks)

Actors and stakeholder mapping

Prior to the group work, Mr Ghulam Shah explained about the partnership landscape, which can be envisioned while implementing regional initiatives in which development partners, science and research partners, strategic partners, global partners, operational partners, and networking and knowledge partners all have to interact and contribute to the result chain along the impact pathway. He elaborated that actor mapping is essential to identify functional relationships between different partners and to realize the extent of overlaps and synergies.

The following key questions were answered during the exercise:

- Who are the key actors – implementers, immediate users, next users, and end users of results who are involved (will be involved) to help relevant results (outputs and outcomes) happen?
- What are the current and future relationships?
- Who are the most influential partners/actors

The exercise was done with the mixed group of partners as per the tentative outputs of the Initiative. Table 4 summarizes the group work discussions.

Table 4: **Summary of actors and stakeholder mapping per output (as identified by country-wise groups)**

Country	Implementers	Next users	End users
Output 1.1 Scientific research and long-term monitoring based knowledge/infrastructure developed on various landscape elements (biodiversity, ecosystems and services, value of natural capital, livelihoods, hydrology of river systems, society, culture, and traditions, institutions and governance, climate change, and other drivers of change), including traditional knowledge			
India	GBPIHED (nodal organization of Government of India), State Government of Arunachal Pradesh (Forest Department) (facilitation, data generation, policy formulation); ICIMOD	GBPIHED, State Government of Arunachal Pradesh (Forest Department) (facilitation, data generation, policy formulation); ICIMOD, Rajiv Gandhi University (RGU) (data generation); State Government of Arunachal Pradesh, India Botanical Society, Zoological Society of India, Aaranyak, North Eastern Regional Institute of Science & Technology, Indian Institute of Remote Sensing (IIRS), Tata Institute of Social Sciences (TISS), National Institute of Rural Development	State Government of Arunachal Pradesh, Forest Department, North Eastern Council, Ministry of Development of North Eastern Region (DONER), Ministry of Environment and Forests, and Climate Change (MoEFCC), GBPIHED, ICIMOD local institutions/ communities
China	Kunming Institute of Botany (KIB) (nodal organization, data generation & monitoring), Kunming Institute of Zoology (KIZ) (data generation & monitoring), Yunnan Academy of Agricultural Sciences (YAAS) (data generation & monitoring)	Chinese Academy of Sciences (CAS), Yunnan Forestry Department, Yunnan University, Gaoligongshan National Nature Reserve (GNNR)-Baushan, GNNR-Nujiang, WWF-Yunnan	Communities
Myanmar	Forest Department (nodal institute), Department of Agricultural Research (data), Department of Meteorology and Hydrology (data)	Wildlife Conservation Society (WCS) (data/research), Environmental Conservation Department (ECD), Regional Government (coordination), Myitkyina University (Research Partner), United Nations Development Programme (development partners), Department of Agriculture (user partner), Forest Department (implementer/data), GNNR-Baushan, GNNR-Nujiang,	Ministry of Environmental Conservation and Forestry (MoECAF), Ministry of National Planning and Economic Development, Ministry of Agriculture and Irrigation, Ministry of Hotels and Tourism (MoHT), local communities and community-based organizations (CBOs)
Output 1.2 Conservation and development policy environment improved through policy research, analysis, increased access to, and use of, knowledge system			
India	TISS, MoEFCC, RGU, GBPIHED, local Institutions	State Government of Aruncahal Pradesh (all departments), non-governmental organizations (NGOs), local institutions	Department of Horticulture, Department Agriculture, Department of Environment and Forestry, local institutions, media, academia, communities
China	CAS, Yunnan Academy of Social Sciences (YASS), local government	Government Department, Provincial Department, Media	Department of Forestry, Department of Agriculture, communities
Myanmar	MoECAF (Forest Department), NGOs	Forest Department, Department of Agriculture, Department of Agricultural Research	Local communities, government departments, CBOs

Output 2.1 Ecosystem management framework applied (in pilot sites) for effective management of protected areas, key watersheds, key biodiversity areas, and degraded areas outside protected areas			
India	GBPIHED, Forest Department	Government of Arunachal Pradesh (Forest Department)	Local communities
China	KIB CAS, YASS	Yunnan Forestry Department, Yunnan Environmental Department	State Administration of Forestry
Myanmar	Forest Department, WCS	Forest Department, WCS, Myitkyina University), CBO	State governments, MoECAF
Output 2.2 Community-based management interventions used for selective ecosystems to enhance conservation and livelihood co-benefits			
India	State Government of Arunachal Pradesh, GBPIHED, Local Communities	State Government of Arunachal Pradesh, NGOs	State Government of Arunachal Pradesh, local institutions, communities, media
China	Bihualing community, Dulongjiang community, CAS, YASS	Local government, Yunnan Provincial Government, Department of Forestry, Department of Agriculture, NGOs	Local government, Yunnan Provincial Government, Department of Forestry, Department of Agriculture, media, communities
Myanmar	Local NGOs (Shalom, Friends of Wildlife, Spectrum), INGOs (WCS, Fauna & Flora International), government departments (Ministry of Border Affairs, Forest Department, Department of Social Welfare), CBOs, private sector, tourism companies, Htoo Company	NGOs, academia	Communities
Output 3.1 Environmentally friendly, resource efficient and social inclusive livelihood opportunities, both land and non-land based livelihood options such as community-based tourism, integrated farming), are explored and piloted with selective communities			
India	RGU, WWF	Government of Arunachal Pradesh (Forest Department), local institutions/ communities	Government of Arunachal Pradesh, local communities
China	YASS	5 counties	Yunnan Agricultural Department
Myanmar	Forest Department, WCS (data), Rural Development Department (coordination), local communities	Forest Department, General Administrative Department (coordination), Directorate of Hotels and Tourism Development (coordination), CBOs (implementing)	Regional governments MoECAF, Ministry of Livestock Fodder and Rural Development, Ministry of Agriculture and Irrigation, Ministry of National Planning and Economic Development, MoHT
Output 3.2 Green development infrastructure supported including early warning system			
India	State Government of Arunachal Pradesh, GBPIHED, IIRS, Aaranyak	NGOs, State Government, WWF, RGU, North Eastern Regional Institute of Science & Technology	State Government of Arunachal Pradesh, local communities; MoEFCC
China	Local Government, CAS, YASS Communities	Department of Agriculture, Department of Forestry, Yunnan Provincial Government	Depart of Environment, Department of Agriculture, Department of Forestry, local government, communities, media
Myanmar	MoHT, Department of Meteorology and Hydrology, MoECAF	General Administrative Department, government (local, national)	Local communities
Output 4.1. Regional/national collaborative actions promoted and partnerships networks strengthened, as well as private sector engagement in the landscape initiative (corporate social responsibility, responsible business)			
India	GBPIHD, MoEFCC, ICIMOD	Botanical Survey of India, Zoological Survey of India, National Institute of Rural Development, IIRS, RGU, North Eastern Regional Institute of Science & Technology, TISS, Government of Arunachal Pradesh	North Eastern Council, DONER, MoEFCC
China	KIB CAS, KIZ CAS, Yunnan Academy of Forestry Sciences(YAFS), capacity development), YAAS, YASS	CAS (regional cooperation/partnership development transboundary)	Ministry of Foreign Affairs (strategic development), State Administration of Forestry, State Council Development Research Centre (climate change)
Myanmar	Forest Department (nodal organization)	MoECAF (coordination and policy implementation)	Regional governments, Government of Myanmar, Ministry of Foreign Affairs (coordination for foreign relations)

Result chain logic

This is to elaborate on long term landscape level vision and to work out pathway logical result chain pathway through defining impact, outcomes and outputs. The vision and the short term objectives for the Hi-LIFE initiative is given below:

Vision (>20 years): The unique biodiversity and cultural heritage of the Far-eastern Himalayan Landscape (FHL) are safeguarded and sustained for the improved flow of ecosystem services, socioeconomic development, and preservation of cultural heritage benefiting the environment and livelihoods of the people living in the landscape and beyond

Impact (=goal) (about 10 years): To better understand landscape values and effectively conserve and manage the landscape improving the ecological integrity, ecosystem services, equitable livelihoods, and policy environment through promoting regional cooperation

Outcome (5 years): The landscape's features and its associated ecological, socio-cultural, and economic values are better understood and, in identified pilot sites, biodiversity and associated ecosystem services and cultural heritages are effectively managed and the communities are engaged in different land/non-land based environmentally-friendly, resource efficient, and socially inclusive livelihood opportunities, and there is effective implementation of the Regional Cooperation Framework.

- Scientific information and knowledge on different landscape elements including policy reviews contribute to / shared / discussed for informed decision making
- Number of ecosystem management interventions applied / strengthened for management of biodiversity resources (ecosystems, habitats, species, and genes) in pilots with focused interventions for sustaining certain ecosystem services
- Number of conservation linked livelihoods interventions strengthen community socioeconomic support base in pilots
- Number of collaborative and joint regional activities initiated by the three country partners

Strategic areas of Intervention (Outputs):

Livelihoods and community-based interventions that is environmentally-friendly, resource efficient, and socially inclusive and which directly cater to people's needs, vulnerabilities, and aspirations and to the resolution of conflicts towards conservation and use of biodiversity and natural resources, including transfer of technologies and development of green development infrastructure.

Participatory ecosystem management actions that helps optimize ecosystems and livelihood co-benefits, promoting peoples participation and engagement in biodiversity conservation, sustainable use and benefit sharing, respecting also the traditional and indigenous knowledge of communities.

Generation/synthesis of scientific knowledge through collaborative research and long term monitoring infrastructure development and sharing of findings for informed decision making and inputs into policy

Partnerships for regional cooperation for promoting regional/ national collaborative actions, partnerships network, transboundary mechanisms, knowledge sharing and communication including strengthening of community based information resource centres and facilities.

Outcome logic

A number of actors will need to do things differently if the Hi-LIFE Initiative is to achieve the desired results. The conditions, practices, and capacities of different actors will have to be simultaneously analysed, including the risks. Risks are those situations that have negative impacts on the achievement of results.

This group exercise dealt with two main questions:

- How should individuals and organizations (actors) act differently to bring about this change?
- What are the perceived risks involved for the outcome to happen?

Table 6 summarizes the group discussion on outcome logic for the Hi-LIFE Initiative and Table 7 presents the groups' risk assessment.

Table 6: **Outcome logic for Hi-LIFE Initiative (as identified in country-wise group discussions)**

Output	Actor	Expected changes in their conditions or practices	Expected changes in their Knowledge Attitude and Skills required to support changes in their practices	Project strategies to bring about these changes	Risks
Scientific research and long-term monitoring based knowledge/ infrastructure developed on various landscape elements (biodiversity, ecosystems and services, value of natural capital, livelihoods, hydrology of river systems, society, culture and traditions, institutions and governance, climate change, and other drivers of change), including traditional knowledge	China: Government, Department of Transport India: GBPIHED, Aaranyak, state governments of Arunachal Pradesh, local communities Myanmar: MoHT, ECD, local communities	• Better disaster management and mitigation skills and approaches • Availability of geospatial databases covering a long period • Better handle on situations such as landslides, forest fires, floods • Ability to develop climate resilient infrastructure	**Knowledge:** • About the early warning system, infrastructure for operating the system • About climate change **Attitude:** • Cooperative • Receptive to change **Skills:** • Application of the system • Ability to use the early warning system	• Ensure availability of reliable and consistent data • Awareness raising (educational institutions, local communities, government, civil society) • Training and capacity development	• Poor coordination between countries • Sustainable finance
Conservation and development policy environment improved through policy research, analysis, increased access to, and use of, knowledge systems	Ministries of forest, academic institutions, local communities/ institutions (LCIs)	• Ministries of forest: will make/have people inclusive policies • Ministries of forest: will have better M&E mechanisms • Academic institutions: improve/shared/ regional knowledge & policy research • LCIs: Inclusive, equitable and participatory natural resource management and conservation and development • LCIs: Traditional knowledge integrated into government policies	• Ministries of forest and academic institutions: adopt participatory approaches • LCIs: communities feel empowered to get involved in policy formulation and decision making	• Demonstrate benefits of participatory practices to ministries • Sharing of policy research knowledge base among government, academic institutions, and communities through workshops, etc.	• Lack of interest on part of ministry/ governments

Ecosystem management framework applied (in pilot sites) for effective management of protected areas, key watersheds, key biodiversity areas and degraded areas inside/outside protected areas	China: Yunnan Environment and Planning, Department of Transport, government India: GBPIHED, state government of Arunachal Pradesh, local communities Myanmar: Forest Department, WCS, Myitkyina University, researchers, academic institutions, local communities	• Improved ecosystem services • Improved quality of life • Sustainable resources management • Efficient and judicial use of natural resources • Increased resilience • Mainstreaming of gender • Inclusive participation • Improved governance and enhanced capacity	• **Knowledge:** Increased understanding of resources and about ecosystem based conservation practices • **Attitude:** Increased positive attitude towards protected areas and conflict resolution (park-people) and better coordination among stakeholders • **Skills:** Decision making ability; participatory management skills; benefit sharing; inventory; measuring and monitoring;	• Awareness ability • Enhanced capacity • Workshops • Training • Consultations • Mentorship • Exposure visits • Regional forums for knowledge sharing • Training on Plant Biodiversity Register	• Poor coordination between stakeholders
Community-based management interventions used for selected ecosystems to enhance conservation and livelihood co-benefits	LCIs, local government academic and research institutions/NGOs	• Efficient ecosystem management and conservation by communities • Improved and sustainable livelihoods through better management of ecosystems • Innovative ideas and knowledge generated	• Transparent and inclusive ecosystem management (communities/ gender) • Participatory ecosystem management and conservation	• Build community capacity • • Establish linkages, interaction, and partnerships among governments, academia, and communities	• Problem of establishing linkages among government, academia, and communities
Community-based information resource centres and extension services strengthened	Myanmar: Nature and Wildlife Conservation Division (NWCD), WCS, local community service organizations China: County government departments, township government and local extension agencies India: GBPIHED, technical/ vocational institutions, RGU	• Community well assisted in knowledge sharing mechanism at grassroots • Active participation, communications and knowledge management activities • Improved community networking and knowledge enrichment	• Participatory and inclusive attitude developed for traditional knowledge documentation and sharing • Promotion of the integration of traditional knowledge into modern technology • Diversification and enriching extension services and their content	• Allocation of sufficient budget, human resources, and extension activities • Establishment of community driven/ based information centre • Capacity building for communication skills and strategies at community level	• Lack of interest and availability of appropriate manpower or agencies to undertake activities or provide services • Lack of willingness to share traditional knowledge and local knowledge • Weak local level institutions or corruption
Regional/national information exchange and knowledge syntheses strengthened	Myanmar: NWCD, WCS, Myitkyina University, Myanmar China: KIB India: GBPIHED, Rajiv Gandhi University, Government and North-east technical/ vocational institutions	• Improved national-level knowledge sharing mechanism • Enhanced communication activities with partners/ stakeholders/donors • More engagement with all stakeholders in terms of knowledge generation and management	• Knowledge management and communication strategy developed • Participatory and inclusive attitude developed	• Allocation of sufficient budget for human resources/ strategy for all levels of project management	• Data censorship by government, red tape, national security policy, state-level forest/ biodiversity law

Table 7: **Risk assessment**

Identified risks	Likelihood of occurrence (low/high)	Potential impact on results (low/high)	Mitigation plan (strongly recommended)
Lack of interest on part of ministry/governments	High	High	• Regular interaction among local to national governments, academia, and communities
Problem establishing linkages among government, academia, and communities	High	High	• Set up participatory M&E mechanism to ensure accountability • Establish coordination committee involving government, academia, and community
Data censorship by government	High	High	• Sensitization of policy makers
Red tape	High	High	• Sensitization of policy makers
National security policy	Low	High	• Sensitization of policy makers
Lack of interest and availability of appropriate manpower or agencies to undertake activities or provide services	High	High	• Target right institutions, sensitize and capacitate local organizations
Lack of willingness to share traditional and local knowledge	Low	High	• Adopt proper communication strategies and approaches
Weak local level institutions or corruption	Low	High	• Awareness raising, institutional capacity building • Bring in good governance aspects including transparency and accountability
Unsustainable finance	Low	High	• Allocation of budget for activities to enhance the outcomes
Poor coordination between countries	Low	High	• Ensure coordination • Frequent interaction • Communication strategy • Continued and sustained communication • Facilitation by ICIMOD
Poor coordination between stakeholders	Low	High	• Ensure coordination • Frequent interaction • Continued and sustained communication • Facilitation by nodal agencies
Community perceptions	Low	High	• Engagement with communities with relevant incentives • Develop community ownership • Livelihood development • Social infrastructure
Access to pilot sites	High	High	• Pre-planning
Policies/government change	Low	High	• Lobbying • Linking to country's commitment to multi-environmental agreements, lateral agreements, treaties, Convention on Biological Diversity • Facilitation by ICIMOD • Linking this initiatives with other development projects

Output and outcome indicators

Manfred Seebauer, Chief Technical Adviser at GIZ, presented examples of the outputs and indicators agreed between GIZ and ICIMOD in implementing the Kailash Sacred Landscape Conservation and Development Initiative. The core problem is that approaches to sustainable ecosystem management pursued by ICIMOD and its partner organizations have so far not been able to achieve significant improvements in the social situation of the people or in the condition of the environment. In this regard, the outcome envisioned is that the social situation of the population and the condition of the ecosystems in the transboundary landscape are improved. The expected outputs include:

- Results-oriented and well-documented implementation plans
- Results-oriented monitoring and evaluation reports compiled by the partner organizations
- Implementation of pilot measures
- Institutionalization of lessons learned from the pilot measures combined with the sharing of these experiences between the landscape initiatives

- Implementation of capacity development measures for partners
- Developing, on a pilot basis, the implementation capacity of around 15–20 strategic partners with a special focus on gender, financial management, and achievement of results

The outcome indicators include:

- Biodiversity corridors, based on an integrated ecosystem and livelihood approach have been established
- 60% of the communities and relevant institutions have adopted approaches for ecosystem management and nature conservation
- 25% of the households have added 10% to their income through local value chains
- Partner organizations have each met 70% of the indicators in terms of the objectives and the results with regard to livelihoods and the state of ecosystems

The idea behind sharing the GIZ experience is to understand how the outputs and outcome indicators have to be linked to solving core problems and how indicators have to be measurable and not too ambitious.

Result-oriented monitoring and evaluation

Ms Lalu M Kadel, Monitoring and Evaluation Analyst at ICIMOD made a brief presentation on result-oriented monitoring and evaluation (ROME). Monitoring is defined as the systematic collection, analysis, and use of information from projects and programmes aimed at improving the efficiency and effectiveness of a project or organization and is mainly regarded as an internal but continuous process. Evaluation, on the other hand is about assessing as systematically and objectively as possible an ongoing or completed project, programme, or policy in order to make statements about their relevance, effectiveness, efficiency, impact, and sustainability. It is mainly regarded as external process. The difference between the two separate, but interrelated, processes can be summed up by saying that monitoring looks into the question 'Did we implement what we had planned?', while evaluation seeks to answer to the question 'Did we achieve this result as a step to finally meet the project's objectives?'.

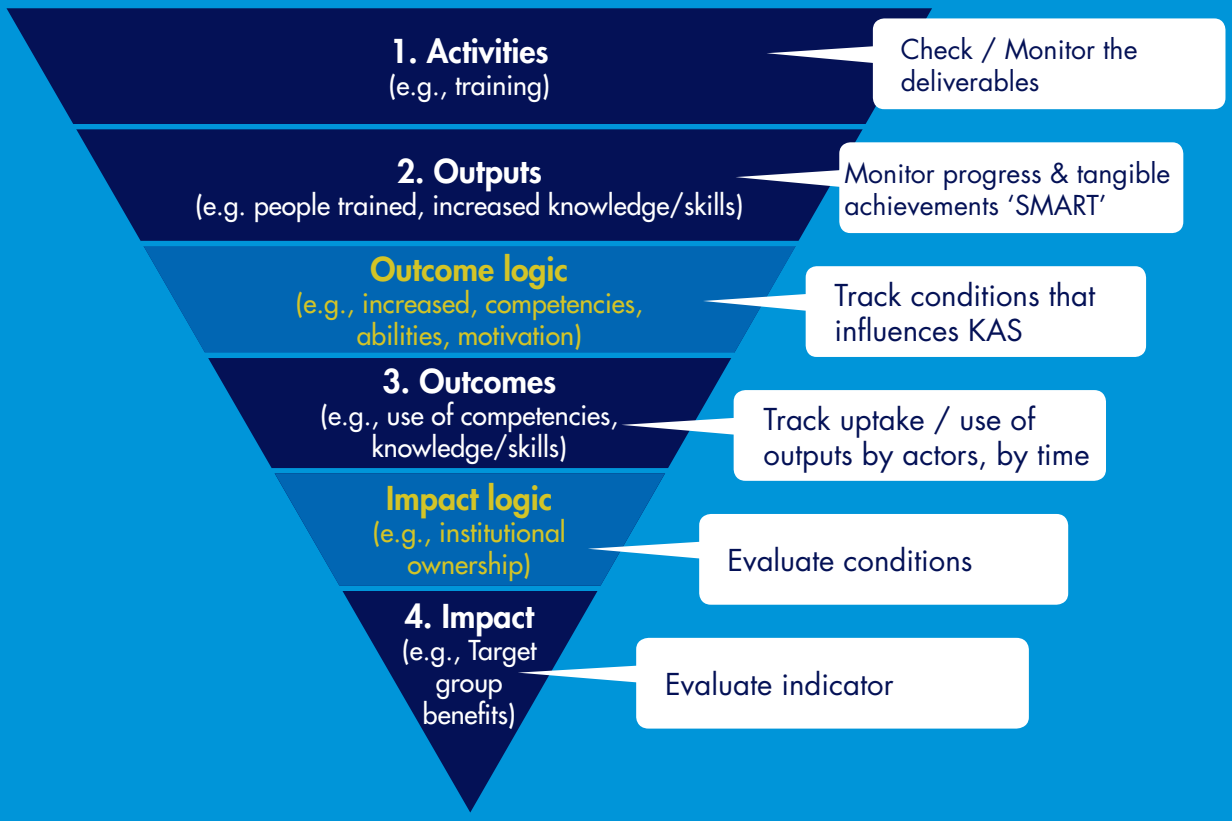
The ROME process involves the following steps:

Step 1. Defining what to measure, i.e., defining the result indicators
Step 2. Planning how to collect, compile, and analyse data and information systematically (this involves the preparation of a result-based M&E plan, M&E activity plan, and M&E operational tool)
Step 3. Measuring the results through collection of relevant data and information and, therefore, developing M&E database and M&E knowledge products
Step 4. Communicating M&E findings so that they influence better quality results in future

Defining indicators is critical to the M&E processes. It reflects the changes connected to an intervention and helps assess the performance of development actors. Indicators can be both objective and subjective, qualitative or quantitative. The Organisation for Economic Co-operation and Development, Development Assistance Committee (OECD-DAC) defines it as a: "Quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor".

'SMART' criteria are often used to define indicators, i.e., they have to be specific (should reflect simple information that is communicable and easily understood); measurable (changes should be objectively verifiable and measurable through some units); achievable (indicators and their measurement units must be achievable and sensitive to change during the life of the project); relevant (should reflect information that is important and likely to be used for management or immediate analytical purposes); and finally time-bound (can be tracked at a desired frequency for a set period of time). The basic questions that have to be kept in mind while formulating SMART indicators are: What should be changed or to what extent should something be changed? How do we measure the quality of change? Who will make the observations of the change? When would the change take place? Some indicators, however, cannot be measured in units (such as policy processes, scales of agreement, etc.).

Figure 4: **The use of indicators in the monitoring progress at each level of the result chain**



The issues and questions raised in this session were about reconciling the donor-required indicators and programme vision, and finding the appropriate indicators for weighing the final impact. ICIMOD resource persons and the delegates agreed that the vision for the programme should guide the formulation of all indicators and that the indicator needs to be formulated keeping the timeframe of the initiative in mind. The participants indicated that monitoring also involves analysis of the data, as opposed to simple observation, and that evaluation is a systematic assessment that includes a judgement of something. Regarding the issue of evaluating the final impact, it was agreed that one can only evaluate the final output, not the final outcome, as it is not possible to define when the outcome will be final.

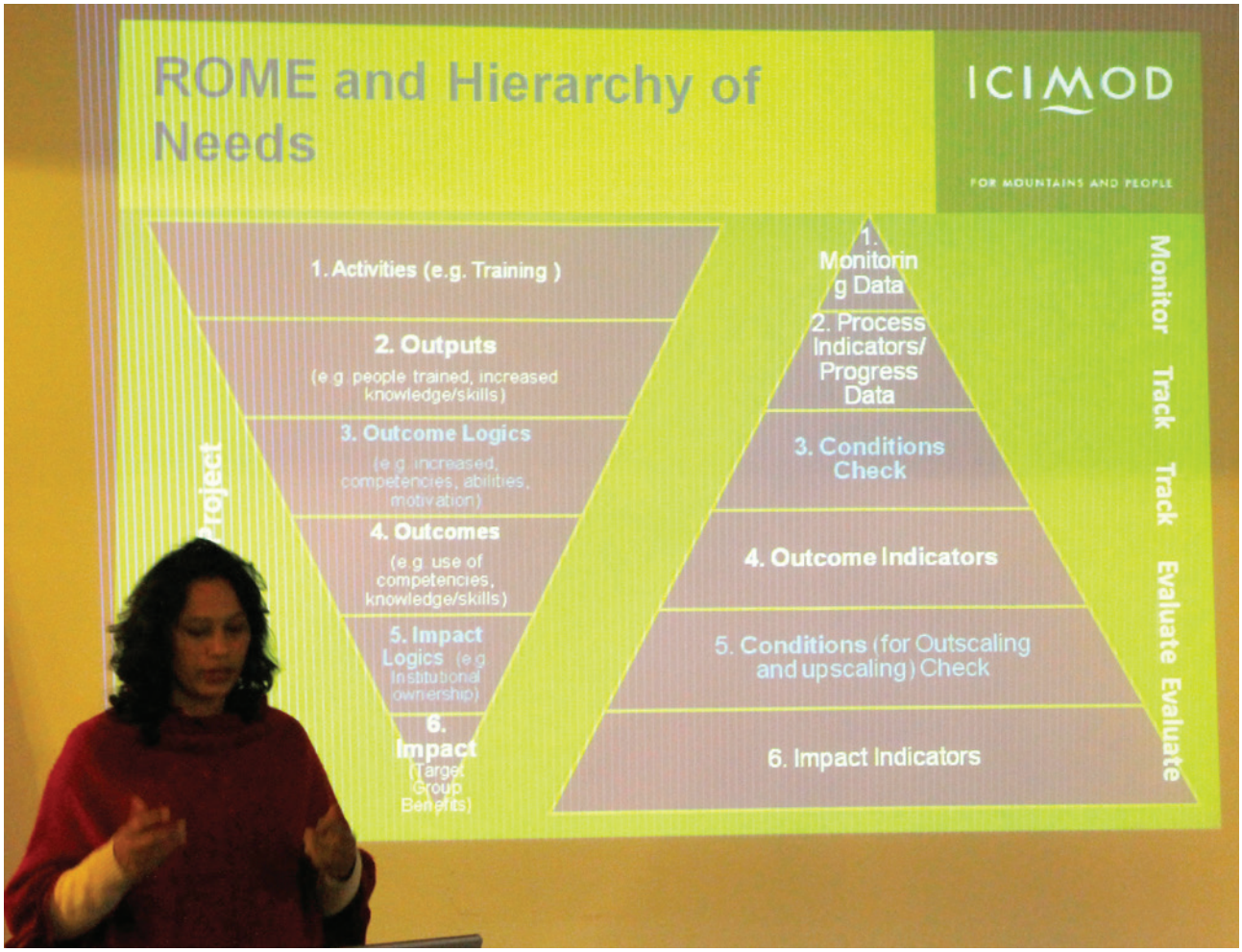
A metaphorical example was provided by Amba Jamir of the Sustainable Development Forum, India. Providing electricity and lighting a bulb is an output, however, the use of the electricity or the light by the end user can vary – that is, it could be used for both good and bad results, and the indicators for each result would be different. Therefore, the focus for defining the indicators and evaluating the results through use of those indicators should come from the broader objective of providing electricity, for example.

The session produced a list of probable indicators for impact, outcome, and outputs for the Hi-LIFE Initiative (see Table 8).

Table 8: **Probable indicators for impact, outcome, and outputs for the Hi-LIFE Initiative**

Impact, outcome, or output	Indicators
New ideas/practices adopted	• Number of livelihood options shared with the communities • Number of households that adopted the new innovative farming technologies • Number of low cost technologies promoted in number of pilot villages • Number of value chain interventions developed and implemented in pilots • Number of households that has increased their income through value chain product development • Number of monitoring sites established or strengthened to assess climate change impacts on hydrology, ecosystem services, wetlands, forests, etc.
Enhanced regional cooperation	• Regional Cooperation Framework drafted and endorsed by three country partners • Number of knowledge sharing platforms developed • Number of collaborative mechanisms developed for addressing transboundary issues (illegal wildlife trade, forest fire, migration, etc.) • Percentage share of development funds leveraged among different stakeholders
New knowledge developed	• Economic valuation of at least two ecosystem services done and considered in planning process • Number of collaborative scientific research publication published on … (themes) • Number of policy reviews and analyses carried out • Number of studies on institutional governance
Capacity developed for livelihoods and conservation	• Number of farming communities trained on….. • Number of individuals, institutions trained on….(themes) • Number of households benefitted through microenterprise development • Number of community-led institutions developed /strengthened for promoting agrodiversity resources
Good governance promoted	Percentage of community represented in the protected area management committee Number of community conserved areas sanctioned
Policy environment influenced	Number of policy briefs prepared and shared Land use policy incorporating customary rights of community people by end of 2018

An important linkage between the result chain and ROME plan was also elaborated on through the diagram in Figure 4, which highlights how indicators are to be used for monitoring progress at each level of result chain.



Monitoring and evaluation plan matrix

The following matrix was used for the exercise. Note that, for data collection, the source of information is reports, data series, policy statements, observation, media, case studies, specific groups of people interviewed (e.g., sample households, control groups, administrative data etc.) and methods for data collection refers to review reports, analyse existing data series, media surveys, case studies, field visits, surveys, focus group discussions, interview, and cooperation with other institutions, etc.

Table 9: **Matrix plan for monitoring and evaluation**

Results/observation areas				Milestones			Data collection					Suggested tools
	Indicators	Definition	Disaggregation	Baseline	Milestone years.	Target & milestones	Source of information	Data collection method	Frequency of data collection	Analysis and use	Responsible	
Impact												
Conditions/strategy												
Outcome												
Conditions/strategy												
Outputs												
Major risks												
Activities												

The summary of group work on defining indicators is given in Tables 10, 11, and 12.

Table 10: **Summary of group work on defining indicators (Group 1)**

Group 1		
Result hierarchy		Indicators
Impact		• Communities are an integral part of the ecosystem management decision making process (protected area management, forest management, wetland management) • Communities (outside of pilot sites) take up community-based natural resource management (CBNRM) planning • Diversification and enhancement of alternative livelihoods
Impact logic (conditions/strategy)		• Implementation/capacity strengthened • Effective sharing and institutional arrangements
Outcome		• Local governments, NGOs, and communities use the recommendations • The institutions used at least 2 policy recommendations to revise their policies • 1. A 10% increase in income; 2. Alternative livelihoods adopted; 3. Sustainable practices adopted
Outcome logic (conditions/strategy)		• Whether or not the stakeholders accept the recommendations • Number of institutions that participated in the policy dialogue • Benefits are obvious to the communities • Knowledge/ideas/skills built • More confidence in community for self-conservation • Effective communication between different layers of actors
Outputs	Conservation and development policy environment improved through policy research, analysis, and increased access to, and use of, knowledge system	• At least 3 policy papers in natural resource management developed by 2016 and made available to target audiences in appropriate language
	Community-based management interventions used for selective ecosystems to enhance conservation and livelihood co-benefits	• Number of people using skills in the three pilot area • Inclusive community-based natural resource management (CBNRM) plans introduced in the communities
Major risks		• Data censorship-mitigation: sensitizing policy/law makers through regional/national-level meetings/workshops • Red tape-mitigation: sensitizing policy/law makers through regional/national-level workshop

Table 11: **Summary of group work on defining indicators (Group 2)**

Group 2		
Result hierarchy		Indicators
Impact		• Enhanced regional cooperation, sustainable landscape management • Improved and enhanced livelihood options and opportunities • Information platform widely accessed by local community, global and regional partners
Impact logic (conditions/strategy)		• Local partners/stakeholders seeking and contributing information and knowledge to knowledge management and communication (KMC) platform
Outcome		• At least one actor from each country using regional KMC platform by 2016 • National level KMC strategy actively implemented by 2017 • Regional/national KMC platform receive information from Community Information Resource Centres (CIRC) at least 4 times/year • Enhanced knowledge of local level/all users
Outcome logic (conditions/strategy)		• Nodal agencies/partners with stakeholders develop and take the ownership process • Capacity building of partners enhanced • Tools and approaches for extension services identified • Capacity building of CBOs and technical/vocational institutions enhanced
Outputs	Regional/national information exchange and knowledge syntheses strengthened	• Three national level KMC strategy and platform developed by 2016 • One regional level KMC strategy and platform developed by 2016
	Community-based information resource centres and extension services strengthened	• Local knowledge system and synthesized scientific information documented and published, extension services strengthened by 2017 • At least one CIRC at each pilot site established in each country and fully functional, accessed by the community in 2018 • Diversification of extension services in each pilot sites in each country • Quality, quantity of extension service providers by different sectors such as agriculture, forests, rural development, livestock etc
Major risks		• Data censorship-mitigation: sensitizing policy/law makers through regional/national-level meeting/workshop • Red tape-mitigation: sensitizing policy/law makers through regional/national-level workshop

Table 12: **Summary of group work on defining indicators (Group 3)**

Group 3		
Result hierarchy		Indicators
Impact		• Replication of best practices of traditional knowledge in other communities, increase in income, increase in awareness of communities, quality of life increased, and ecosystems better managed, number of hunting events reduced, number of enterprises run by women established or increased
Outcome		• Improved realistic conservation or development plan compared to previous plans • Participatory management of natural resources for benefit sharing by the communities • More area brought under conservation • More investment by government, private sector, and development partners for community-based conservation and development (all three countries)
Outcome logic (conditions/strategy)		• At least one incidence of a county government/protection bureau using the database for conservation planning (China); incorporation of database by local government for working plan/scheme; use of database by research organization; use of data for protected area management by Forest Department, development plan by regional government, and also for research and conservation planning by WCS and Myitkyina University, Myanmar
Outputs	Scientific research and long-term monitoring based knowledge/ infrastructure developed on various landscape elements (biodiversity, ecosystems and services, value of natural capital, livelihoods, hydrology of river systems, society, culture, and traditions, institutions and governance, climate change, and other drivers of change), including traditional knowledge	• List of flora and fauna as a taxonomic group documented/updated for at least one pilot site in each country (completed by 2018 • A book prepared on traditional knowledge, innovations, and customary practices for natural resource (might list several practices) in 3 years from implementation • Assessment report generated on land use/ land cover changes for pilot sites • Documentation of agro-biodiversity developed for pilot sites • At least 2 training and capacity development programmes conducted for diverse stakeholders per country • Baseline data on socioeconomic and demographic parameters of the pilot sites
	Ecosystem management framework applied (in pilot sites) for effective management of protected areas, key watersheds, key biodiversity areas and degraded areas outside protect areas	• Framework developed and made available by 2016 • Ecosystem-based resource management approaches applied in two villages in each country by 2018 • Number of springs recharged • Reduction in shifting cultivation areas (%) in India and Myanmar • Valuation of ecosystem services in two sites by 2017 • Working/action plan for community-based natural resource management developed using the common ecosystem management framework • Community-based natural resource management plan practised in two selected villages by 2018 • Capacities of number of institutes built to improve governance and enhance capacities for sustainable resource management
Major risks		• Access to pilot sites

Country-specific strategies and activity plans (2015–2020)

The country partners from China, India, and Myanmar presented updates on their country-specific conservation and development strategies (CDS) and comprehensive environmental and socioeconomic monitoring strategies (CESMS). The strategies were presented to the panel before the detailed activities planning. This was an important sharing process in which the country priorities were highlighted and the overlaps and ideas for collaborative work could be discussed. This sharing led the participants to become aware of each other's priorities and of the shared priorities that could open avenues for bilateral and regional cooperation.

This session was built on the components generated from the previous days. Although delegates were planning activities for five years, the long-term vision was emphasised. The activities planning was prefaced by the presentation of country-specific CDSs and CESMSs. This was to keep country-specific priorities in mind while drawing up the activities for implementation.

Summary of conservation and development strategies

The summary of country-specific CDSs, as they were presented by the respective country partners, is outlined in Table 13.

Table 13: **Summary of conservation and development strategies**

China	• To strengthen government-led conservation programmes (corridor establishment, monitoring of climate change impact on biodiversity, and monitoring of illegal hunting, overharvesting, and transboundary trade) • To encourage community participation, decision making, and involvement in conservation practices (community-led restoration, near (inter) situ conservation, reintroduction, conservation by contract) • To enhance interdisciplinary research for better and wise decision-making (biodiversity surveys, data packaging nd knowledge synthesis, dissemination and sharing) • To promote public awareness and participation in biodiversity conservation (prevention of wildlife consumption and commercial harvesting of rare and endangered species, introduction of exotic or invasive species) • To promote government-led compensation to communities (for animal damage, provision of ecosystem services, community-led conservation by contract, and restoration practices) • To strengthen community-based livelihood development programmes (village tourism, performance of ethic culture, crash crop plantation, certification of local products, geographical indication, trade markers, and farmers' intellectual property rights) • To establish early warning systems to help communities cope with natural hazards (hazard surveys, monitoring and warning, training for escape and self-preservation, better access to information) • To implement community-based capacity building for better development and adaptation (woman NTFP associations, on-farm conservation practices) • To establish a smooth communication and information exchange pipeline (intergovernmental information exchange and coordination of forest fires, forest diseases, illegal trade) • To promote regional cooperation in the field of biodiversity and management research (regional knowledge synthesis, protocol and handbook development, cross-border visits, expertise change)
India	• Ensure availability of systematic reliable datasets to support decisions on conservation and development issues in the target landscape • Achieve ecological, biological, economic, and socio-cultural sustainability of the landscape • Maintain uninterrupted and reliable flow of environmental services in the landscape with national, regional, or global significance • Realize climate change vulnerabilities and build capacity to cope with, and adapt to, impact
Myanmar	• Promote conservation of biological diversity ensuring the sustainable provision of ecosystem services in order to support sustainable development • Ensure the conservation and long-term existence of natural and cultural heritage through applying an integrated ecosystem management approach that incorporates the total value of ecosystem, traditional knowledge, and the cultural institutions of local communities • Ensure sustainable livelihoods of local communities by providing alternative livelihood opportunities and strengthening the climate change adaptation and risk mitigation capacity of mountain communities • Strengthen institutional capacity for effective implementation and cross-sector coordination and communication, and for dealing with cross-cutting issues in both conservation and development planning

Summary of comprehensive environmental and socioeconomic monitoring strategies

The summary of country-specific CESMSs, as presented by the respective country partners, is outlined in Table 14.

Table 14: **Summary of comprehensive environmental and socioeconomic monitoring strategies**

China	• Standardization and protocol development of climate change monitoring in the South Transect and the Middle Part of the landscape (air temperature and humidity, precipitation, soil temperature and humidity) built up by KIB • Establishment of climate change monitoring in the North Transect of the landscape (air temperature and humidity, precipitation, soil temperature and humidity). • Standardization and protocol development of plant community diversity monitoring in two transects and one point established by KIB • 10 camera traps used for wildlife monitoring sites established in GNNR and corridors to monitor the dynamics of keystone mammals • 6 market places from Gongshan, Fugong, Lushui, Liuku, Baoshan's Lujiang Township, and Qushi Township of Tengchong County will be selected for the monitoring of transboundary smuggling and the trading of rare and endangered species (including monkeys, deer, fish, tigers, bears, amphibians, and reptiles, medicinal plants and orchids) • Natural resource, land use, and land cover change monitoring in selected villages • Monitoring of population, income, food supply, water supply, and infrastructural conditions • Monitoring of educational and medical services, social organizations and insurance, woman and child rights, women's associations • Natural hazards monitoring (landslides and droughts) and disaster reduction and self-preservation trainings in pilot sites.
India	• Monitoring biodiversity conservation and management • Monitoring land use/land cover changes • Monitoring climate change and climate change vulnerabilities • Monitoring socioeconomics and livelihoods including human and livestock health
Myanmar	• Monitoring climate parameters and assessments of change (vulnerabilities and impact) • Monitoring land use change • Monitoring water resources • Monitoring ecosystem functioning and services • Monitoring biodiversity, ecosystems and management • Monitoring livelihood and development interventions

Activities planned for next five years

The country-specific activities planned for next five years are outlined in Table 15.

Table 15: **Activities planned for upcoming five years**

India		
Strategic priority	Year	Actions
Ensure availability of reliable systematic datasets to support decisions on conservation and development issues in the target landscape	1	Make an inventory of biodiversity; identification and status assessment of rare, endangered, threatened and endemic species, resource assessment, and distribution patterns (NTFPs, high value medicinal and edible plants, flagship species)
	2	Make inventories of other resources – indigenous genetic resources, such as agriculture, livestock, water (status assessment and distribution maps)
	3	Identify basic trends of land use, land cover change (LU/LC)
	4	Establish a network of multi-location environment monitoring stations (automatic weather stations, geo-referenced representative ecosystem monitoring plots])
	5	Undertake the capacity and skills building of stakeholders for effective use of monitoring and evaluation protocols; process, analyse and share of research-based information to facilitate policy formulation; make policy amendments and decisions to facilitate effective ecosystem services based management and promotion of conservation linked livelihoods opportunities
Achieve ecological, economic and socio-cultural sustainability of the landscape	1	Undertake ecosystem-based livelihood enhancement focusing on eco-tourism /Community based tourism; carry out bio-prospecting for economic incentives
	2	Focus on gender empowering and reducing vulnerability; alternate livelihood generation, skill enhancement regarding local food products, arts and crafts
	3	Integrate information on GIS platform – data analysis for revealing trends to guide planners and policy makers
	4	Identify and address issues of governance, rights and land tenure; undertake participatory planning for local governance
	5	Engage in research-based advocacy for policy interventions
Maintain uninterrupted and reliable flow of environmental services in the landscape with national, regional or global significance	1	Carry out land use, land cover change analysis – assessing the trade offs
	2	Integrate issues of land use and land cover changes in policy framework
	3	Address issues surrounding 'man-animal' and 'man-nature' conflicts; ensure inter-institutional coordination (e.g., between government organizations, NGOs, CBOs, etc.)
	4	Increase cover of native species; carry out restoration and recovery of degraded areas/ habitats
	5	Implement programmes for stakeholders' capacity enhancement for adaptive management; promote regional cooperation for reaping the benefits of international frameworks
Realize climate change vulnerabilities and build capacity to cope with and adapt to impact	1	Document and analyse traditional coping strategies and adaptations to change; identify prevailing factors for inequitable vulnerabilities and capacity to cope with and adapt to impacts
	2	Develop incentive mechanisms with a focus on gender and indigenous communities in coping and adaptation
	3	Determine the impacts of changes in key sectors (e.g., biodiversity, water, agro-biodiversity, indigenous communities)
	4	Identify factors allowing, facilitating, and increasing adaptive learning; promote the participation of indigenous people in climate change dialogues and developing adaptation strategies
	5	Contribute to improving the quality of life by improving policy measures to deliver more benefits; follow best practices to mitigate climate change
Monitoring		
Monitoring biodiversity conservation & management	1	Monitor biodiversity and forest structure and composition
	2	Carry out assessment of rare, endangered, threatened and endemic species and keystone species, as well as assessment and distribution patterns of invasive and alien species
	3	Carry out assessment and distribution patterns of NTFPs, high value medicinal and edible plants
	4	Document traditional knowledge, innovations and practices (TKIP) in biodiversity conservation
	5	Develop mechanisms for long-term conservation and sustainable utilization of biodiversity resources
Monitoring land use / land cover changes	1	Monitor trends in land use, land cover change (forests, wildlife habitats, alpine rangelands, settlements, and agriculture and other production system)
	2–5	Monitor forests, wildlife habitats, alpine rangelands, settlements, agriculture and other production systems

Monitoring climatic parameters and climate change vulnerabilities	1–2	Monitor amount and duration of rain, snowfall, temperature, wind velocity, relative humidity, wind speed, duration of cloudiness, air pollution
	3	Document access and use of various biomass resources and conflicts over their use, as well as traditional knowledge, innovations and practices (TKIP) in resource use
	4	Monitor the frequency and nature of occurrence of hazards (flood, forests fire, landslides, etc.
	5	Monitor governance (change in functioning of institutions and their role and responsibilities)
Monitoring socioeconomics and livelihood including human and livestock health	1	Monitor change in demographic profiles of the local communities; change in number and composition of animal species
	2	Monitor change in crops and cropping patterns (agrodiversity)
	3	Monitor change in diseases, human and animal health, change in mode of treatments
	4	Monitor frequency of occurrence in human and animal conflict
	5	Monitor governance (change in functioning of institutions and their role and responsibilities)
China		
Strategic priority		
Develop a regional knowledge base through research and monitoring	1–3	Establish north transect; develop protocol; conduct biodiversity survey; carry out socioeconomic monitoring in selected sites
Improve conservation and development policy environment through policy research, analysis, increased access, and use	1–5	Carry out PES policy analysis, community conservation contract study, corridor establishment study, and ecotourism policy study
Apply ecosystem management framework (in pilot sites) for effective management of protected areas, key watersheds, key biodiversity areas and degraded areas outside protected areas	1–3	Select pilot site; develop ecosystem management framework; carry out marketplace trade monitoring
Use community-based management interventions used for selective ecosystems to enhance conservation and livelihoods co-benefits	1–3	Document NTFPs and traditional knowledge in pilot sites, create an agrobiodiversity inventory, carry out a case study of in-situ conservation
Explore and implement mechanisms for access and benefit sharing, PES, REDD++ interventions in pilot site(s)	1–2	Learn from experience and study of India ABS policy
Explore and pilot innovative and inclusive livelihoods means (both land and non-land based) with selective communities	1–5	Carry out knowledge synthesis of agroforestry systems; conduct case study of high value plant plantation in pilot sites and a case study of bamboo product marketing
Support green development infrastructure including development of early warning systems in pilot site (s)	1–5	Carry out a landslide survey in pilot sites; establish an early warning system; conduct training in landslide monitoring and disaster reduction
Strengthen community-based information resources centre and extension services	1–3	Establish a Women Agrobiodiversity Association and a community based co-management and co-protection association
Promote regional collaborative actions and knowledge synthesis and strengthen partnership networks	1–5	Develop a regional database of keystone biodiversity (mammals, birds, amphibians, reptiles; bamboo, and wild edible plants by Lisu community etc.; develop training materials on bamboo and rattan and their use
Myanmar		
Strategic priority		
Promote conservation of biological diversity ensuring the sustainable provisions of ecosystem services in order to support sustainable development	1	Document ecosystem goods and services on which community relies for livelihoods
	2	Develop integrated conservation planning through participation of stakeholders and form community-based organizations
	3	Implement community-based conservation activities to ensure the sustainable provision of ecosystem services (in two selected villages)
	4–5	Implement community-based conservation activities to ensure the sustainable provision of ecosystem services (extend to two more villages, total four villages); collect data on livelihoods, perceptions, and the monitoring of ecosystem goods and services
Ensure the conservation and long-term existence of natural and cultural heritage by applying an integrated ecosystem management approach that incorporates the total value of ecosystems, traditional knowledge, and local cultural institutions	1	Develop of ecosystem an management framework for effective management
	2	Develop a working/action plan for community-based natural resource management using the framework developed for pilot sites
	3	Carry out capacity building; implement a community-based natural resource management plan (in one selected village)
	4	Implement a community-based natural resource management plan (extend to second village)
	5	Implement a community-based natural resource management plan (in two selected villages); share the results of implementation with regional government, NGOs, and line departments to incorporate in their planning

Ensure the sustainable livelihoods of local communities by providing alternative livelihood opportunities and strengthening the climate change adaptation and risk mitigation capacity of mountain communities	1	Develop innovative and inclusive environmentally-friendly, resource efficient, and socially inclusive livelihoods means
	2	Carry out capacity building of local communities and staff on alternative livelihoods and community-based information resource centres
	3	Practise innovative and inclusive environmentally-friendly, resource efficient, and socially inclusive livelihoods means (in four selected villages, different ethnic groups); set up community-based information resource centres
	4–5	Practise innovative and inclusive environmentally-friendly, resource efficient, and socially inclusive livelihoods means (in four selected villages, different ethnic groups); using community-based information resource centres, sharing the results of implementation in communities with regional government, NGOs, and line department to incorporate in their planning
Strengthen institutional capacity for effective implementation and cross-sector coordination and communication, and of cross-cutting issues in both conservation and development planning	1	Conduct capacity needs assessment for government line agencies, local authorities, and community-based organizations
	2	Provide capacity building trainings to increase communication skill
	3	Build national communication mechanism or platform and ensure functioning of platform
	4–5	Ensure functioning of platform; monitor the functionality of the communication mechanisms or platform
Monitoring activities		
Monitoring climate parameters and assessments of change (vulnerabilities and impact)	1	Install local/mini weather stations; collect time series climate parameters from secondary sources; analyse time series data
	2	Build capacity and skill to collect meteorological data; link the results of analysis of alternative livelihood activities
	3–5	Collect meteorological data; link the results of analysis of alternative livelihood activities; share the meteorological data through CIRC
Monitoring land use / land cover changes	1	Conduct assessment of land use/ land cover change and time series trend analysis
	2	Identify drivers and underlying causes of land use/ land cover change; share the information with regional governments, NGOs, and line departments to incorporate in their planning
	3	Carry out capacity building for community-based environmental monitoring
	4–5	Monitor impact of habitat restoration activities/community-based conservation activities/ alternative sustainable livelihoods; share the information with regional governments, NGOs, and line departments to incorporate in their planning
Monitoring water resources	1	Collect baseline information on, water quality, erosion, and sedimentation in watershed
	2	Identify drivers and underlying causes of erosion and sedimentation in watershed
	3	Carry out action research for watershed rehabilitation and ecosystem health
	4	Share information with regional governments, NGOs, and line departments to incorporate in their planning
	5	Monitor impact of action research on water quality and watershed status; share information with regional governments, NGOs, and line departments to incorporate in their planning
Monitoring ecosystem functions and services	1	Carry out economic valuation of ecosystem goods and services
	2	Prepare recommendations for the sustainability of ecosystem services for line ministries and regional governments to incorporate in their planning
	3–5	Monitor the integration of ecosystem services in development planning
Monitoring biodiversity, ecosystems, and management	1	Conduct flora and fauna surveys and assessments, and habitat identification for endemic, globally threatened and key species
	2	Conduct flora and fauna surveys and assessments, and habitat identification for endemic, globally threatened and key species; conduct a survey on ethno-botanical and agrobiodiversity and medicinal plant
	3	Conduct flora and fauna surveys and assessments, and habitat identification for endemic, globally threatened and key species; conduct research on traditional knowledge and practices for resource management
	4	Prepare list of flora and fauna in pilot site; document ethno-botanical and agrobiodiversity, medicinal plants, and traditional knowledge and practices for resource management
	5	Share the information with regional governments, NGOs, and line departments to incorporate in their planning
Monitoring livelihood and development interventions	1	Conduct a survey on natural resource-based employment and income; document legal rights and access to natural resources; carry out a poverty and vulnerability assessment
	2	Link the findings to the development of alternative livelihood activities
	3–4	Monitor the impact of alternative improved livelihood initiatives
	5	Share information with regional governments, NGOs, and line departments to incorporate in their planning

Concluding session

The highlight of this session was the feedback from participants, who hailed the consultation as a success and shared their enthusiasm about the potential for cooperation and implementation of the plans drawn up during the consultation. Dr Rajan Kotru led the way forward with a discussion on 'Institutional Coordination Mechanisms', in which he discussed the need for knowledge sharing mechanisms and fostering knowledge production activities to prevent the Hi-LIFE Initiative from becoming a 'dead' project. He specified the importance of governance mechanisms in creating enabling conditions for regional cooperation and for implementing country-specific actions.

This discussion was followed by a presentation on 'Communication Ethics and Strategies' by Mr Deependra Tandukar of the Knowledge Management and Communications unit at ICIMOD. He touched upon the importance of clear communication among all partners internally (within the project core team) and externally (with partners and other stakeholders) contributing to the result chain. He also stressed the importance of disseminating results and information on initiatives to wider audiences including decision makers and the general public. The representatives of the country partners shared their reflections and thanked ICIMOD for providing a regional platforms for discussion and facilitating the process of programme implementation design.

Prof Yang Yongping, speaking on behalf of the Chinese delegation, praised the efforts of the facilitators and resource persons. He also thanked the India and Myanmar colleagues for their contributions and expertise. He emphasised the importance of a multi-disciplinary approach and of impact, which he said was not given much attention in the past. He also stressed the need to 'harvest the main crop', i.e., focus on the richness of biodiversity in the landscape and explore the ecosystems services for the benefit of the people.

Dr P P Dhyani, speaking on behalf of the Indian delegation, also lauded the facilitation process and resource persons, saying the process was 'professional and targeted'. He also thanked the participants and organizers.

Mr Kyaw Lwin from Myanmar thanked the organizers, resource persons, and participants on behalf of the Myanmar delegation, and applauded the knowledge sharing process during the consultation. He stated his desire to create impact in the landscape for both people and the rich biodiversity shared by the three countries.

The consultation ended with closing remarks by Dr Rajan Kotru on behalf of Dr David Molden, Director General of ICIMOD and a vote of thanks from Paing Soe from ICIMOD.

Annex 1: **Consultation agenda**

Day 1: Monday, 15 December 2014

Venue: Hotel Himalaya, Kathmandu, Nepal

Time: 8:30–17:00

08:00–08:30	Registration	Prabha Shrestha
Opening Session		
08:30–8:35	Welcome remarks	Rajan Kotru, ICIMOD
08:35–8:45	Opening remarks	Eklabya Sharma, ICIMOD
08:45–09:30	Renaming the initiative: A proposal for consideration by the three partner countries	Facilitated by Eklabya Sharma
09:30–09:40	Remarks (China)	Prof Yang Yong Ping, KIB
09:40–09:50	Remarks (India)	Dr PP Dhyani, GBPIHED
09:50–10:00	Remarks (Myanmar)	Dr Naing Zaw Htun, Forest Department, MoECAF
10:00–10:15	Summary highlights of the landscape initiative	Bandana Shakya, ICIMOD
10:15–10:30	Objectives and expected outcomes of this regional consultation	Rajan Kotru, ICIMOD
10:30–11:00	Photo session and tea break	

Day 1 (continued)

Technical Session I: Understanding and linking the initiative to the bigger picture of transboundary landscape management

This session improve our understanding of the higher meaning of this collaborative regional work and, therefore, help us to be clear about our vision, goal, situations, and challenges in the landscape. The discussion will build on the feasibility assessment, regional synthesis, and regional cooperation framework jointly developed by ICIMOD and the three country partners.

Throughout the consultation, we will be revolving our discussion around taking up the 'Impact Pathway and Theory of Change' approach

11:00–11:30	**Presentation 1**: Overview of ICIMOD's M&E approach and Transboundary Landscape Result Framework	Farid Ahmad, ICIMOD
	Clarification and comments	
11:30–12:00	**Presentation 2**: Introduction to 'Theory of Change and Impact Pathways'	Ghulam M Shah, ICIMOD
	Clarifications and comments	
12:00–13:00	**Group work 1**: Visioning exercise 4 groups (10 years, 5 years, 2 years)	Mixed group (partners +ICIMOD colleagues)
13:00–14:00	*Lunch break*	
14:00–14:30	Plenary presentation by groups + vision consolidation	Facilitation by Ghulam M Shah, ICIMOD
14:30–16:00	**Group work 2**: Situation/problem analysis	Mixed group (partners +ICIMOD colleagues)
15:15–15:30	*Working tea break*	
16:00–16:45	Plenary presentation by group leads + consolidation of situations/problems	Facilitation by Ghulam M Shah, ICIMOD
16:45–17:00	Wrap up and way forward	Farid Ahmad, ICIMOD
18:00–20:00	*Reception Dinner-Dhokaima Cafe*	

Day 2: Tuesday, 16 December 2014

Technical Session II: Mapping of actors and stakeholders

This session will help build a library of partners in the landscape whose actions and behaviour may influence the achievement of the goal envisioned for the initiative. It will help us relate to the actions and mandate of several other players in the landscape and the nature of their influence.

09:00–9:15	Recap and introduction to Day 2 agenda	Farid Ahmad, ICIMOD
09:15–9:30	Guideline presentation on actor mapping	Ghulam M Shah, ICIMOD
09:30–10:45	**Group work 3**: Actor mapping	
10:45–11:00	*Tea break*	
11:00–11:45	Plenary presentation and discussion on categorization of partners	

Technical Session III: Result chain logic and risk assessment

This session will help the partners construct logical pathways along the result chain for the initiative and help identify risks and challenges

11:45–12:00	Guideline presentation	
12:00–13:00	**Group work 4**: Outcome logic and risk assessment 4 groups (output related)	
13:00–14:00	*Lunch break*	
14:00–14:45	Plenary presentation	Group leads
14:45–15:45	**Group work 5**: Impact Logic and Risk Assessment 4 groups (output related)	
15:45–16:00	*Tea break*	
16:00–16:45	Plenary presentation	Group leads
16:45–17:00	Wrap up and way forward	

Day 3: Wednesday, 17 December 2014

Technical session IV: Monitoring and evaluation planning for the initiative

This session will help orient partners about common terminologies used in the M&E Framework and to understand criteria used for developing indicators. Through the group work, participants will develop indicators and an M&E plan for the entire result chain

08:30–08:45	Recap and introduction to Day 3 agenda	Farid Ahmad, ICIMOD
08:45–09:30	**Plenary presentation**: M&E planning and processes – overall concept; guidelines for group exercise on indicator development	Lalu M. Kadel, ICIMOD
09:30–12:30	**Group work 6**: Development of indicators for impact, outcome and outputs (6 groups)	
10:45–11:00	Tea break	
12:30–13:30	*Lunch break*	
13:30–14:30	Plenary presentation- Indicators	Group leads
14:30–14:45	**Presentation**: Result based M&E planning- guidelines for group work	Lalu M Kadel, ICIMOD
14:45–15:45	**Group work 7**: Result based M&E plan development	
15:15–15:30	*Working tea break*	
15:45–16:45	Plenary presentation	Group leads
16:45–17:00	Wrap up and way forward	

Day 4: Thursday, 18 December 2014

Technical session V: Understanding country-specific strategies for conservation and development and comprehensive environmental and socioeconomic monitoring; activity planning for five years.

This session will help understand country specific priorities and align the activities as per the indicators identified. Broad actions within each output will be identified for five years.

08:30–8:45	Recap and Introduction to Day 4 agenda	Bandana Shakya, ICIMOD
8:45–09:15	**Presentation**: CDS and CESMS - BSL-Myanmar 15 minutes each for CDS and CESMS	Representatives from Myanmar
09:15–09:45	**Presentation**: CDS and CESMS - BSL-China 15 minutes each for CDS and CESMS	Representatives from China
09:45–10:15	**Presentation**: CDS and CESMS - BSL-India 15 minutes each for CDS and CESMS	Representatives from India
10:15–10:30	Questions and clarifications	
10:30–10:45	*Tea break*	
10:45–13:15	**Group work 8**: Activity planning (computer-based template provided) - groups as per the output	
13:15–14:15	*Lunch break*	
14:15–15:15	Plenary presentations	Group leads
15:15–15:30	Comments and clarifications	
15:30–15:45	*Tea break*	
15:45–16:00	Consolidation of governance mechanisms	Rajan Kotru, ICIMOD
16:00–16:15	Communication ethics and strategies	Deependra Tandukar, ICIMOD
16:15–16:30	Way forward	Rajan Kotru, ICIMOD
16:30–17:00	**Reflections**: Country partners (China, India, Myanmar)	
17:10–17:20	Closing remarks	Rajan Kotru, ICIMOD
17:20–17:30	Vote of thanks	Paing Soe, ICIMOD

Annex 2: **List of participants**

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