FIFTH QUINQUENNIAL REVIEW (QQR) ICIMOD

Final Report

October 21, 2016

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List of Abbreviations

BOG	Board of Governors
COP	Conference of Parties
COSOP	IFAD country strategy and operational plan
DFAT	Australia Department of Foreign Affairs and Trade
DFID	UK Department for International Development
EU	European Union
GEOSS	Global Earth Observation System of Systems
GLOF	Glacial lakes outwash flooding
HKH	Hindu Kush - Himalayan
HUC	Himalayan University Consortium
ICIMOD	International Centre for Integrated Mountain Development
ISG	ICIMOD Support Group
IUCN	International Union for Conservation of Nature
KMC	ICIMOD Knowledge Management Component
KSLCDI	Kailash Scared Landscape Conservation and Development Initiative
MENRIS	Mountain Environment Regional Information Systems
M&E	Monitoring and evaluation
MTAP	Medium Term Action Plan
NAP	National Action Plans
NTFP	Non-timber forest products
PAC	Programme Advisory Committee
REDD	Reducing Emissions from Deforestation and Degradation
RP	ICIMOD Regional Programme
RDS	Regional database system
RMC	Regional member country of ICIMOD
SAARC	South Asian Association for Regional Cooperation
SCLF	Short Lived Climate Forcers
SRF	ICIMOD Strategic Results Framework
UNCBD	United Nations Convention on Biological Diversity
UNCDD	United Nations Convention on Drought and Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

EXECUTIVE SUMMARY

The Fifth Quinquennial Review of ICIMOD (QQR-5) for 2011-2015 aims to (1) assess the performance of ICIMOD based on its approved Strategic Results Framework (SRF) in terms of relevance, effectiveness, efficiency, impact, and sustainability of results, and (2) provide recommendations of how ICIMOD can improve its strategic results framework and implementation plan in the future.

ICIMOD's *Strategic Results Framework and Medium Term Action Plan III (2013-2017)* provided the main framework for assessing performance of the organisation. The review was guided by QQR Terms of Reference and a Review Matrix that summarized the questions alongside the indicators and data sources. The work was undertaken during July-August 2016 by a four-person consultant team from AECOM and EURAC. Progress reports, M&E data, financial data and external evaluation reports were also reviewed to provide input alongside the interviews and field visits. The review included country visits to China, Nepal, India and Myanmar and included interviews with more than 143 individuals from ICIMOD staff, implementing and institutional partners, Regional Member Countries (RMCs), donors and other stakeholders.

The QQR-5 findings suggest five themes for improving performance: (1) concentrate on addressing issues of regional importance with a mandate to lead and coordinate joint RMC research priorities; (2) enhance the role of RMC representatives and mechanisms to address specific RMC needs; (3) provide greater emphasis on up-scaling, mainstreaming and sustainability for results that warrant such attention; (4) pursue opportunities for research and piloting that enhance policy dialogue and (5) reduce organisational complexity and simplify the programme delivery and reporting systems as much as possible.

Progress on Strategic Goals

Significant progress has been made in the implementation of ICIMOD's six strategic goals. The following observations are based on the interviews with stakeholders and review of reports:

- **Goal 1: Widespread adoption of innovations developed by ICIMOD and partners**

A wide range of innovations (e.g., community-based flood early warning systems, SMS weather information messaging and agro-advisory information, a Poverty and Vulnerability Assessment survey tool, value chain and income generating strategies, climate resilient water management methods) have demonstrated improvements in practical methods and technologies. The extent of replication and potential for widespread adoption, and the mechanisms for scale-up and sustainability remain to be fully addressed.

- **Goal 2: Significant advances in the generation and use of relevant data, knowledge, and analysis**

Advances in data, knowledge and analyses on natural resources and hazards have clearly expanded the role of ICIMOD as a regional knowledge and information hub and supplier of innovative tools for analysis and management of mountain resources and livelihoods. But the available knowledge and expertise are sometimes viewed as under-utilized and, in some cases, RMC members feel that activities are insufficiently demand-oriented. The challenge is in fully applying and using the information and knowledge advances in ways that have measurable long term results in keeping with the ICIMOD "knowledge to use" vision.

- **Goal 3: Significantly developed human and institutional capacity**

Extensive training and awareness raising is being provided by ICIMOD and partners, along with platforms for enhanced information on various physical and socio-economic parameters. These have been important basic contributions to capacity. The ICIMOD role in long term capacity development has yet to be fully considered in terms of feasible and practical alignment with national efforts at strengthening the relevant institutions. Capacity to use technical assistance affects sustainability.

- **Goal 4: Policies and practices considerably influenced by the work of ICIMOD and its partners**

Important contributions to various policy documents and processes have occurred and are ongoing as the policy implications of programme activities are now given a high emphasis. It is suggested nevertheless that more direct connections are needed to regional and national policy issues and the opportunities where research, knowledge development and piloting activities can contribute to informing policy discussions from a technical perspective.

- **Goal 5: Enhanced regional cooperation related to sustainable mountain development**

Regional cooperation has been a key goal and the various channels of communication for multi-country exchange and collaboration are important and greatly appreciated by participants. Some of the challenges for substantive cooperation are apparent in the transboundary landscape activities. There has been modest progress in establishing and strengthening technical collaboration although improved regional cooperation is not particularly well acknowledged by many stakeholders.

- **Goal 6: Global recognition of the importance of mountains and global resources made available to mountain people to ensure improved and resilient livelihoods and ecosystems**

The extensive involvement in international forums and processes has assisted in raising the profile of HKH region issues, Himalayan 'third pole' and 'water tower' concepts and inserting mountain concerns into Sustainable Development Goals, climate change planning and other global agendas. This global outreach and the quality of knowledge products has been a strong feature in the past MTAP period and has enhanced ICIMOD's reputation.

Regional Programme achievements

Annex 4 provides a brief summary of the achievements in each Regional Programme. Key highlights are as follows:

RP-1: Adaptation to Change - The reporting indicated substantial progress toward achievement of planned outcomes. It is evident that good initial results have been achieved from local level, project-specific studies and field activities of the various initiatives. However, the wider uptake of these results beyond local and national borders and the successful RMC integration of strategies developed or supported by ICIMOD still needs to be shown. The results of the research and knowledge generation are more visible than those related to policy and therefore efforts are now being made to increase policy dialogue on these findings.

RP-2: Transboundary Landscapes - The programme has created a new awareness and recognition of the need for collaborative approaches and actions. The main outputs relate to long term monitoring plans, ecosystem management activities, livelihoods development and cooperation under REDD

Himalaya. RMCs have gradually become engaged in scientific research, land management issues and sustainable livelihoods. An established framework for regional collaboration on REDD-related landscape management has also been developed. Transboundary coordination of conservation and development remains a long term goal. Ongoing funding, RMC commitments and stakeholder interest affect future progress.

RP-3: River Basins - The main focus has been on gaps in information, methods and capacities for flood and drought management and integrated water resources management. Key achievements include a regional flood information system and platforms for Koshi Basin and Indus Basin, climate scenarios, water availability analysis tools, improved understanding of water-food-energy linkages, enhanced capacity to gather/analyse data for water modelling, and cooperation on sharing, real-time hydro-meteorological data. These are impressive results but it is also apparent that many knowledge and capacity gaps remain, and some of partner agencies have not yet been able to fully use and operate the facilities and systems.

RP-4: Cryosphere and Atmosphere - The programme aims to build a regional cryosphere and atmosphere knowledge hub. The Cryosphere Initiative has been generating and disseminating updated data and knowledge on the cryosphere and technically supporting partner institutions. Activities include field base approaches as well as remote sensing activities and various applied data products on snow cover, glacier change, glacial lakes and permafrost distribution. ICIMOD's Atmosphere Initiative aims to bring about effective measures and policies for reducing air pollution and its impacts within the HKH region. The overall assessment is very positive with a very high scientific level and some important success stories, although the focus is on only a few countries (Nepal and partially Bhutan).

RP-5: Mountain Environment Regional Information System - MENRIS includes two initiatives – SERVIR Himalaya and Regional Databases. The focus of the SERVIR initiative is on generating geospatial information, including Earth observation data from satellites, geographic information systems, and predictive models useful to developing countries. The Regional Databases are a core initiative by ICIMOD to establish systematic databases. The overall evaluation is very positive. The approach to make data and results openly accessible is a cornerstone in the role of ICIMOD as a knowledge hub for the region. For SERVIR, limited uptake is an issue and adjustments are suggested. Data sharing policy is still a critical issue between RMCs and should be developed further.

RP-6: Himalayan University Consortium - This programme involves collaboration and networking among universities in the Hindu Kush Himalayan region. The activities include seed grants to young professionals, mobility program, regional research programs, trans-boundary research projects, regional research workshops, co-supervision of MSc and PhD students, joint publications, and HUC data base development. Active progress on network development is being made by the consortium.

Key conclusions

ICIMOD has made substantive progress on the Strategic Results Framework priorities and the Regional Programme outcomes. Further attention is needed on issues of regional importance, use

and scale-up of the products, RMC liaison, opportunities for policy dialogue and the strategic role of partners.

The ICIMOD programme approach is multi-faceted – six Regional Programmes, four thematic areas/services, cross-cutting objectives (gender, governance, inclusive development, private sector), ten topics of Centre-wide importance, and an array of programme and project-oriented activities roughly aligned as Initiatives under the Regional Programmes and smaller special projects. This organisational complexity reduces the clarity of focus on the primary results expected from ICIMOD's programmes. Key results under each RP should be central to ICIMOD's structure and operations.

ICIMOD has demonstrated strong leadership in developing the partnerships approach and training staff in working with partners. Over 200 partners were engaged in the programme in the past three years, and 475 training and awareness raising events held with more than 15,000 individuals, enabling ICIMOD's programme reach in a way that would not have been otherwise possible. Partnerships have been mostly short-term duration and the role of strategic partners in policy dialogue is still evolving.

QQR-5 found major contributions toward the strategic goals. However, more direct relevance to RMC priorities and improved programme coherence are needed. Progress on RP implementation has been significant although subsequent uptake and mainstreaming of innovations into institutions, sectors and markets has been less evident. The management structure and administrative processes have been generally effective, with some remaining issues related to RMCs collaboration and communications, the scale and design of the RP initiatives, the criteria for selecting implementation partners, and thematic group – RP team integration.

Many contributions to policy documents and strategies have also been provided, and scaling-up to the policy level is now being addressed, but more guidance on how to support institutional capacity for policy action and mechanisms for sharing policy lessons is required. The partnerships have helped to extend ICOMOD's reach and to deliver pilot activities. Partnership performance appears to have been mixed, and strategic partners have yet to be fully proven in terms of assisting scale-up effects of the innovations being introduced.

Programme impacts are currently being addressed in the innovative Impact Pathways Analysis process. Uncertainties about sustainability remain, related to the extent of adoption and use of programme results. Maintaining the core funding to support programme level knowledge and learning, capacity and policy development, and global outreach is a major concern.

Significant results have been produced from a wide range of ICIMOD activities, especially in terms of introducing innovative technologies and practices, engaging over 200 partners in the implementation processes and producing high quality research, knowledge products and information platforms. It is timely for ICIMOD to take stock of these many accomplishments and to refine the organisational, programming and financing strategies based on the lessons learned.

The QQR-5 recommends some important changes for the final year of MTAP-III and for the design of MTAP-IV, as further elaborated in Section 8 of the report:

Recommendation 1. Enhance the communication channels with RMCs to increase awareness of and feedback on ICIMOD programmes and usability of outputs.

Recommendation 2. Increase the alignment and engagement with RMC priorities.

Recommendation 3. Develop and apply guidelines for scaling-up proven innovations and for mainstreaming them into government systems and investment opportunities.

Recommendation 4. Identify the major research questions in HKH region which RMCs consider to be priorities for ICIMOD and develop strategic research partnerships around these priorities.

Recommendation 5. Establish strategic alliances with multilateral organisations for leveraging of knowledge and capacity development and integration of innovations into ongoing development processes.

Recommendation 6. Strengthen the annual review of implementation progress with more rigorous performance data and external input.

Recommendation 7. Increase regional monitoring of the status and trends in mountain conditions and further promote access to ICIMOD's information portals.

Recommendation 8. Facilitate private and public sector investment planning and the financing readiness of appropriate technologies that emerge from the Regional Programmes.

Recommendation 9. Prepare a business plan for core funding aimed at sustaining 40% of the annual budgets for programme-wide activities and operating costs.

Recommendation 10. Revise the Strategic Results Framework and the operational structure to increase the emphasis on key results of regional significance and coherent implementation across and within the Regional Programmes.

1. Introduction

1.1 Purpose

The International Centre for Integrated Mountain Development (ICIMOD) is a regional intergovernmental learning and knowledge sharing centre serving the eight countries of the Hindu Kush Himalayan (HKH) region – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. The purpose of this Fifth Quinquennial Review (QQR) of ICIMOD, covering the 2010 – 2015 period, is to provide accountability to the ICIMOD Board, the ICIMOD Support Group (ISG), and other stakeholders and to strengthen ICIMOD's functioning and performance as an organisation that values learning from its experiences during the past five years.

The objectives of the review were to:

1) Assess the performance of ICIMOD based on its approved Strategic and Results Framework in terms of relevance, effectiveness, efficiency, impact, and sustainability of results.

2) Provide recommendations of how ICIMOD can improve its strategic results framework and implementation plan (MTAP) in the future.

The review covers ICIMOD's six strategic goals; priority actions and projected outcomes and outputs; means of achieving these through Regional Member Country (RMC) engagement and cooperation; partnerships, knowledge management and communication; and monitoring and evaluation.

The review was guided by Terms of Reference for the Fifth Quinquennial Review (QQR-5) issued by ICIMOD (17 Dec. 2015). Following a competitive bidding process, a joint proposal by AECOM (Europe) and EURAC was selected and the initial preparations began in June 2016. An inception report was prepared including a Review Matrix that summarized the review questions alongside the indicators and data sources. The work was undertaken during July and August 2016 by a four-person consultant team, with logistical support from the Strategic Planning, Monitoring and Evaluation Division of ICIMOD. The review included country visits to China, Nepal, India and Myanmar and included interviews with more than 143 individuals from ICIMOD staff, implementing and institutional partners, Regional Member Countries (RMCs), donors and other stakeholders.

ICIMOD has a 30-year history as a regional knowledge hub. It serves the RMCs through information and knowledge generation and sharing to find solutions to critical mountain problems. ICIMOD provides a regional platform where policy makers, experts, planners, and practitioners can exchange ideas and perspectives towards sustainable mountain development. It facilitates knowledge exchange across the region, helps customize international knowledge and tailor it to the region's needs, and brings regional issues to the global stage. The knowledge exchange focusses on its core competencies of livelihoods, ecosystem services, water, and geospatial solutions. ICIMOD addresses transboundary issues such as the changing availability of water resources and its implications; conservation of flora and fauna in transboundary landscapes in the context of shifting species ranges with a changing climate; and high-value niche products that are marketed across borders.[1]

[1] ICIMOD, A Strategy and Results Framework for ICIMOD, October 2012.

1.2 Context for QQR-5

The past QQRs covered the five year periods from 1985 to 2006, and a mid-term review (MTR) was also commissioned in 2010 that covered the period of 2007 to 2010. The previous three QQRs highlighted the following:

QQ-2 (June 1995) – The report made specific suggestions on four broad themes: Excellence, knowledge and leadership, outreach agenda, Organisational structure, and Finance. It provided 32 recommendations, including for example, the need to define a small number of priorities in each programme, ensure highest quality staff, establish a committee on mountain policies, expand regional and national networking, focus on continuity beyond projects, intensify collaboration with CGIAR, encourage more structured and active programme committee of the Board, and expand funding sources. The 45/55% core programme/special project funding ratio was considered inadequate and a preferred 70/30% ratio was suggested.

QQR-3 (July 2001) – Many specific recommendations were made for each programme component, within an overall proposal for a six step programme to: 1) Engage in a bold fundraising effort to create a Trust Fund for ICIMOD; 2) Strategically focus the thematic and regional priorities of ICIMOD by clarifying its conceptual foundation which will become the guiding framework for RCP III; 3) Develop a sound PME (participatory monitoring and evaluation) system on the base of this concept; 4) Improve strategic network and partnership relations with major organizations in the regions of operation of ICIMOD; 5) Expand its electronically - based knowledge sharing network in an innovative manner so that it can push the region into the 21st century; and 6) Align the necessary internal structures with these priorities, including the staging of a carefully designed Organisational Development process.

QQR-4 (July 2006) - The Panel identified 17 key issues relating to the overall policy and strategy, internal organisation and the role of the donors. It recommended 1) Repositioning ICIMOD, aimed at reducing poverty and improving livelihoods (including developing capacity for analysing and documenting the aforesaid issues statistically, identifying and linking up with solutions devised by regional stake-holders, developing and maintaining databanks and policy papers on key issues, and defining and adapting core competencies), 2) Revisiting the MTR (or MTAP) for promoting a closer interaction on the priorities of the RMCs, 3) Holding the management responsible for the implementation of the Strategy and for review of its implementation annually, 4) Discussing governance in view of creating non-regional memberships and strengthening its strategic role, 5) Increasing RMC's ownership through more focus on policy decisions and increasing their financial commitment, and 6) Having donors consider their role as non-regional member countries in view of the global agenda of mountain environment and development and participating in the core funding and commitments on long-term programme development, as well as access to global resources.

Mid Term Review (Sept. 2010) – Ten recommendations were provided, as discussed in Section 2.3 below. The MTR suggested ICIMOD work as a regional centre but endeavour to

bring its message even more assiduously to global fora; be a facilitating platform for sharing knowledge within the region; focus even more on policy and engage leadership on policy issues; scale up results in the RMCs; decentralize in order to further strengthen cooperation and communication with RMCs; request financial partners to provide more flexible funding along the lines of long-term programmes; and focus on attracting skilled human resources with international competencies in order to maintain a high-calibre international profile.

The growth in ICIMOD's operations has been dramatic, with Total Expenditures increasing from $2 M (USD) in 1990, $3.6 M in 1995, $6 M in 2005, $14 M in 2010, and over $28 M in 2015. Total annual expenditures have doubled between 2010-2015.

ICIMOD's *Strategic Results Framework and Medium Term Action Plan III (2013-2017)* provide the main framework for assessing performance of the organisation. It identifies ICIMOD's regional service role as a bridge between science, policy, and practice. The ICIMOD activities are delivered through six Regional Programmes - Adaptation to Change, Transboundary Landscapes, River Basins, Cryosphere and Atmosphere, Mountain Environment Regional Information System, and Himalayan University Consortium, and four thematic areas of focus: Livelihoods, Water and Air, Ecosystem Services, and Geospatial Solutions, with Gender and Governance as cross cutting issues. Knowledge Management and Communication, and Monitoring and Evaluation are also key institutional functions for improving organizational performance and visibility.

1.3 Methodology

The current QQR focusses on answering a set of review questions in the Terms of Reference that were organised according to five topics:

- Strategic Goals, Regional Programme Goals, Thematic Areas and Priority Actions
- Complementarities, synergies, and added value
- Monitoring, Evaluation and Governance
- Partnerships
- Funding

An evidence-based approach was adopted using a combination of review of documents, structured interviews and group discussions, informal discussions with staff and stakeholders and field visits to project sites. These were guided by the questions and indicators compiled in a Review Matrix. Interview guides, tailored to the types of interviewees, were prepared to facilitate discussions. Country visits were selected to provide representative sampling of the country programmes (Nepal, China, India, Myanmar). Interviewees were selected to provide a very broad range of views of staff, partners, donors, government officials, NGOs and other development assistance organisations. Project progress reports, M&E data, financial data and a few external evaluation reports were also reviewed to provide input alongside the interviews and field visits. The three international consultants used a common template to collect and compare information from interviews and site visits.

Programme achievements including aspects of sustainability and impact, are discussed in Section 3. Relevance and coherence including RMC priorities and level of programme integration are reviewed in Section 4. Programme effectiveness in terms of partnerships, M&E and governance and

management are considered in Section 5. Programme efficiency including delivery of activities and risk management are discussed in Section 6. Finally, funding issues are briefly discussed in Section 7.

2. Background

2.1 Organisational Structure

Figure 1 outlines the general organisational structure for ICIMOD management and implementation. The structure is complex because of the combination of six regional programmes with thematic areas/ core competencies' and cross-cutting objectives, and a variety of sometimes overlapping initiatives and sub-activities (dependent on donor interests and timing) within each regional programme. In addition, different types of partners are engaged in the implementation processes at several levels and scales.

The Board of Governors (BOG) is assisted by the ICIMOD Support Group (ISG), Programme Advisory Committee (PAC) and Finance Committee. Overall direction is provided by the ICIMOD Board and the Executive group, including the Director General, and the Directors and Managers. Five management units (in addition to logistical support) provide the main operational structures and secretariat services.

Activities are primarily implemented through the various Initiatives under the Regional Programmes (and any special initiatives), with technical support from the four Thematic Teams plus the Gender Team and the Knowledge Management and Communications unit.

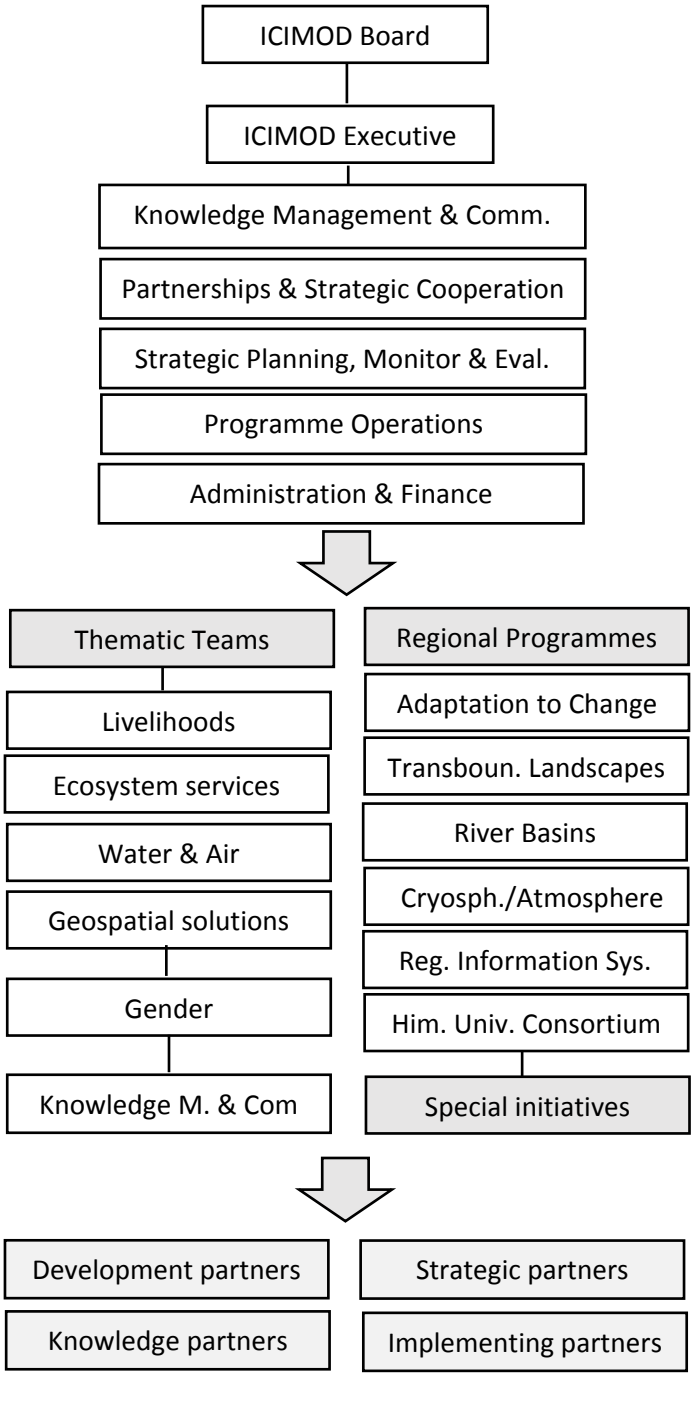
At the field operations level, RMC Development Partners and country Focal Points, Strategic Partners (national lead organisations) and Implementing Partners (e.g., senior NGOs, donor-appointed research organisations, community based organisations, and private contractors) are involved in design and delivery of the specific activities under the Initiatives. Knowledge and networking partners are involved in development and exchange of research and learning from experiences. ICIMOD staff manage and supervise the work, although in RP-3 and RP-4 they have a more prominent role in implementation.

2.2 Programme Characteristics

In its strategic framework, ICIMOD sets out five Regional Programmes (RPs) and one emerging Regional Programme, described as follows. The RPs each encompass various Initiatives (projects/activities).

1. Adaptation to Change

The programme has the overall aim to enhance resilience and to support adaptation of vulnerable mountain communities and ecosystems. The programme works with partners and local communities to develop adaptation mechanisms. The programme includes three initiatives: Rural Livelihoods and Climate Change Adaptation (Himalica), Improving Livelihoods & Enhancing Resilience (Adapt Himal) and Himalayan Climate Change Adaptation (HICAP).



Annual BOG meetings; meetings of ICIMOD Support Group (ISG), Programme Advisory Committee (PAC), Finance Committee, international representations and outreach

Management strategies, communications and knowledge products, partnership agreements, donor relations, staff recruitment, human resources management, work plans and budgets, oversight of implementation, monitoring and reporting, impact assessments, financial management

Initiatives development and funding within Regional Programmes (RPs), partner mobilisation and technical support, programme implementation in relation to strategic results framework and RP strategies and M&E plans, participatory impact pathways analysis, gender analysis, RP and thematic teams and partners implement pilot projects and demonstration activities, training and extension material, production of knowledge products, regular reporting on progress, etc.

Field implementation of RP and other Initiatives in collaboration with RMC country focal points and government staff, research institutions, community based NGOs, local organisations and communities and private sector

Figure 1 Organisational structure

In the Himalica project, the focus is on livelihood and income diversification of mountain communities. Adapt Himal is mainly about adaptive capacities, reducing vulnerabilities, and the development of targeted poverty reduction strategies. The focus of HICAP is the reduction of uncertainty of climate change impacts as well as the enhancement of the resilience of communities, especially women.

2. Transboundary Landscapes

The Regional Programme Transboundary Landscapes addresses the conservation and sustainable use of natural resources (biodiversity, rangelands, farming systems, forests, wetlands and watersheds) on the landscape level. Initiatives are implemented in the following five transboundary landscapes: the Kailash Landscape (KSLCDI), the Landscape Initiative for the Far Eastern Himalaya (HI-LIFE), the Kangchenjunga Landscape (KLCDI), the Karakoram-Pamir (KPLCDI) Wakhan-Pamir Landscape and in the Regional REDD++ Himalaya initiative.

3. River Basins

The Regional Programme River Basins focuses on improved water resource management and its implications for livelihoods, industry, recreation, nature management and agriculture. River basin programmes are developed in five initiatives, namely the Himalayan Adaptation, Water and Resilience Initiative (HI-AWARE), the HKH Hydrological Cycle Observing System Initiative (HKH-HYCOS), the Koshi Basin Initiative, the Indus Basin Initiative (upper Indus basin to date) and the Water and Land Ecosystems Initiative (IWMI Ganges). The key outputs are improved estimates of future water availability and its impact, and adaptive water management strategies at basin and community levels.

4. Cryosphere and Atmosphere

The Regional Programme Cryosphere and Atmosphere's main focus is on monitoring glacier, snow, and glacial lakes as well as atmospheric pollution. Key outputs include databases and a regional cryosphere knowledge hub. The programme is implemented through two initiatives: Cryosphere and Atmosphere. The Cryosphere initiative focuses on the monitoring of glaciers, snow, permafrost, glacial lakes, and glacial-hydrology with an emphasis on in situ measurements, remote sensing, and modelling. The Atmosphere Initiative aims to develop measures and policies for reducing air pollution and its impacts.

5. Mountain Environment Regional Information Systems

In the MENRIS programme the activities include long-term monitoring, database development, and uptake of knowledge for the region. The system stores, maintains, visualises and shares the information coming out of the various initiatives. In the SERVIR Himalaya initiative, geospatial information is generated from earth observation satellite data, geographic information systems and modelling with the aim of strengthening the decision making of governments and other stakeholders by using geospatial information products. In the second initiative, the Regional Database Initiative ICIMOD and partners develop policies for facilitating data and information sharing as well as technical specifications for the design, development, and management of data and information systems.

6. Himalayan University Consortium

With this programme ICIMOD aims to build the capacities of universities and academic institutions in the HKH, focusing on mountain-specific issues through the development of new curricula, research

tools, and human resources. ICIMOD is facilitating the network, provides HUC Members with a platform to meet, and provides content input in some fields.

Table 1 outlines the distribution of Regional Programme Initiatives. There are currently 18 Initiatives ('projects') underway with Nepal and India being the most actively involved and Afghanistan the least.

Table 1 - Distribution of regional programme activities

	Countries directly involved in the initiatives							
ICIMOD Regional Programme initiatives	**AF**	**BA**	**BH**	**CH**	**IN**	**MY**	**NE**	**PK**
1. Adaptation to Change								
Rural Livelihoods and Climate Change Adaptation (Himalica)			■			■	■	■
Improving Livelihoods & Enhancing Resilience (Adapt Himal)		■			■	■	■	
Himalayan Climate Change Adaptation (HICAP)				■	■		■	■
2. Transboundary Landscapes								
Kailash Landscape (KSLCDI)				■	■		■	
Landscape Initiative for the Far Eastern Himalaya (HI-LIFE)				■	■	■		
Kangchenjunga Landscape (KLCDI)			■		■		■	
Hindukush Karakoram-Pamir Landscape	■			■				■
Regional REDD+ Himalaya			■		■	■	■	
3. River Basins								
Himalayan Adaptation, Water and Resilience (HI-AWARE)		■			■		■	■
HKH Hydrological Cycle Observing System (HKH-HYCOS)		■	■	■	■		■	■
Koshi Basin Initiative				■	■		■	
Indus Basin Initiative (upper Indus basin to date)								■
Water and Land Ecosystems Initiative (IWMI Ganges)					■		■	
4. Cryosphere and Atmosphere								
Atmosphere Initiative		■	■	■	■		■	■
Cryosphere Initiative			■				■	
5. Mtn Environment Regional Information Systems								
Regional Database Initiative (RDI)	■	■	■	■	■	■	■	■
SERVIR-Himalaya Initiative	■	■	■	■	■	■	■	■
6. Himalayan University Consortium								
University collaboration and mountain-focussed curricula	■	■	■	■	■	■	■	■
TOTAL Initiatives	4	7	9	10	14	7	15	10

Annex 4 describes the regional programmes in detail. **Annex 5** provides an overview list of indicative activities within the regional programme initiatives. The activities for 2013-2015 were scanned to determine the estimated numbers of activities in the main programme categories, as shown in **Table 2**. It provides an approximate measure of the type and range of outputs. Research and studies encompassed an array of biophysical and socioeconomic assessments. The 41 pilot projects included for example, a destination management plan for a region, developing value chains for agricultural products and climate smart water harvesting. Training sessions involved mostly capacity building in micro planning, demonstrations of technologies or knowledge sharing during workshops or site visits.

Table 2 – Activity types within regional programmes, 2013-2015

ICIMOD Regional Programme initiatives	Est. number of activities within regional programme initiatives				
	Research and studies	Technologies development	Piloting and demonstration	Training/capacity development	Policy Dialogue
1. Adaptation to Change	17	9	17	26	11
2. Transboundary Landscapes	11	1	7	10	9
3. River Basins	24	5	12	14	3
4. Cryosphere & Atmosphere	13	1	1	9	3
5. MENRIS Infor. Systems	5	4	4	16	2
6. Himalayan University Con					
Overall estimate	70 studies	20 technologies	41 pilots	75 + sessions	28 events

2.3 MTR (2010) Recommendations and Follow-up

The QQR-5 Terms of Reference required an assessment of the responses to the recommendations of the *Mid Term Review of the ICIMOD Strategic Framework 2007 and Medium Term Action Plan 2008 – 2012*[2]. This is presented in **Annex 7**. Most of the MTR recommendations have been largely addressed, although strategic issues related to RMC relationships and communications, the direction of ICIMOD's future growth and maintenance of core funding remain issues of concern.

3. Achievements

3.1 Progress on Strategic Goals

The progress in implementation of ICIMOD's strategic goals is briefly summarized below drawing upon the recent report *Cumulative Progress of ICIMOD, January 1st 2013 - December 31st 2015* (ICIMOD, May 2016), followed by general comment from the QQR team based on the interviews with stakeholders and review of reports.

- **Goal 1: Widespread adoption of innovations developed by ICIMOD and partners**

Since 2013, ICIMOD reports that it has been able to reach about 121,000 direct beneficiaries.[3] A wide range of innovations have been introduced or further refined, including a forest fire monitoring and communication system in Nepal, community-based flood early warning system and flood preparedness systems in India, Nepal and Afghanistan, technologies for flood forecasting and

[2] German Federal Ministry for Economic Cooperation and Development (GTZ/BMZ), Royal Norwegian Embassy (RNE), Kathmandu, Swedish International Development Agency (SIDA). Swiss Agency for Development and Cooperation (SDC) Final Report**,** 30 September 2010.

[3] ICIMOD, Final Cumulative Report, 2016, p.8

integrated river basin development in several countries, ICT-based methods to improve access to agricultural commodity prices, SMS weather information messaging and agro-advisory information, use of a Poverty and Vulnerability Assessment survey tool, innovations in value chain development and income generating strategies, climate resilient water management methods including solar water pumps in Nepal and Pakistan, fuel efficient cookstoves, brick kiln energy efficiency and emissions reduction technologies, and alternative agricultural burning methods.

QQR Observations*: These are significant accomplishments that have effectively applied ICIMOD's research and development expertise and, in conjunction with local partners, have tested and demonstrated improvements in on-the-ground methods and technologies. The research and innovative aspects are part of ICIMOD's core mission. The extent of replication and potential for widespread adoption and the mechanisms for scale-up however remain to be fully addressed.*[4]

- **Goal 2: Significant advances in the generation and use of relevant data, knowledge, and analysis**

ICIMOD is contributing science work on glaciers, biodiversity, and water resources. It uses geospatial analysis, modelling, and regional database development to systematically analyze, store, and make available regional information on important critical indicators of mountain environment. A total of 201 peer reviewed journal articles were produced by the end of 2015 and more than 3,450 data sets have been produced.[5] ICIMOD-generated knowledge has also been used in initiatives at national, regional, and international levels. For example, the web-based Koshi Basin Information System (KBIS), the Regional Flood Information System (RFIS), the Indus Basin Knowledge Platform (IBKP), and data from upgraded hydrometeorological stations in Nepal and India support better flood management. The Cryosphere Initiative data and knowledge (used by five partner institutions), the Government of Nepal's training manual on integrating gender equality/social inclusion in disaster and climate risk management, and the International Union for Conservation of Nature (IUCN) publication on 'Transboundary Governance: Protected Area Management Best Practices Guidelines' are examples of relevant knowledge contributions.

QQR Observations*: Advances in data, knowledge and analyses on natural resources and hazards have been significant. ICIMOD is recognized as a regional knowledge hub and database manager. But the available knowledge and expertise are sometimes viewed as under-utilized and, in some cases, RMC members feel that activities are insufficiently demand-oriented. The challenge is in fully applying and using the information and knowledge advances in ways that have measurable long term results in keeping with the "knowledge to use" vision of ICIMOD's programmes. Furthermore, the regional approach of ICIMOD is not always fully addressed – consider potential for a more consistent data and knowledge base for relevant topics in the full HKH region.*

- **Goal 3: Significantly developed human and institutional capacity**

ICIMOD reported training 153 institutions that are now able to better plan and implement development work. Some examples are enhanced capacities of national hydromet services in Bangladesh, Bhutan, Nepal, and Pakistan to improve flood information systems; training to key staff

[4] See examples in RP-1, RP-3 and RP-5 in Annex 4.
[5] Ibid., 2016, p.10

in Nepal and Bhutan on a forest fire detection and monitoring system; REDD+ Cell in Nepal; an M&E strategy and training for the Pakistan Agriculture Research Council; exposure visits for government officials from Bangladesh, Bhutan, and Myanmar on climate change adaptation best practices; introduction to a basin-wide approach by Bihar State Disaster Management Authority and Water Resources Department; use of drought outlook tools with Department of Irrigation and Department of Agriculture of Nepal, World Food Programme (WFP), Practical Action, and the National Farmers Group Federation in Nepal; training of two district-level disaster management authorities on community-based flood early warning systems in India, various training and exposure tours for government staff and farmers on agricultural technologies; and support for Nepal's Renewable Energy Testing Centre's laboratory and for monitoring and assessment of changes in glaciers, snow, and glacio hydrology in Bhutan and with Kathmandu University in Nepal and Karakorum International University in Pakistan. ICIMOD has also organized 475 regional, national, and local training and awareness raising events in which more than 15,000 individuals from member countries participated.

QQR Observations*: Extensive training and awareness raising is being provided by ICIMOD and partners, along with platforms for enhanced information. A post training survey indicated high levels of satisfaction and application of skills. But short term training is not a substitute for long term capacity development, structural reform in government services and policies that facilitate modernization of management systems- elements of which are needed for sustainability. There have been important initial contributions to capacity, but the ICIMOD role in long term capacity development has yet to be fully considered in terms of feasible and practical alignment with national efforts at strengthening the relevant institutions in conjunction with other international cooperation programmes. Capacity to use technical assistance affects the sustainability of ICIMOD's programmes.*

- **Goal 4: Policies and practices considerably influenced by the work of ICIMOD and its partners**

ICIMOD estimates that so far 27 institutions are directly using ICIMOD's input and analyses. Examples include sharing of ICIMOD's approaches and methodologies for addressing ways to manage disasters in the fragile mountain ecosystem with National Planning Commission of India; use of ICIMOD's work and knowledge on poverty and vulnerability, community-based adaptation to climate change, and in the IFAD Nepal country operational strategy (COSOP); use of ICIMOD's Poverty and Vulnerability Assessment Framework for recommendations on Mountain Agriculture to the Planning Commission for the Twelfth Five-Year Plan in India; contributions to Pakistan's National Food Security Policy, support to the Ministry of Forests and Soil Conservation of Nepal on Plant Resources and Medicinal and NTFP Development Board bills and an NTFP policy, inputs were provided on the consultation on 'Regulating Tourism and Pilgrimage in the Himalaya' in India, assistance in development of a concrete time-bound roadmap for making G-SHE (Governance for Sustaining Himalayan Ecosystems) guidelines actionable jointly by Indian departments, development of a new community-based approach to REDD+ by mainstreaming a participatory process and a framework to assess Forest Reference Emission levels, engagement with the National Planning Commission of Nepal to bring a livelihoods perspective into post-earthquake reconstruction, and assistance to Government of Myanmar on Ecotourism Policy.

***QQR Observations**: Effect on policies and practices is now being emphasized within the design of the research and technical assistance in order to generate wider impact. The entry points and influence levers for meaningful policy dialogue often lie outside the technical arena and audience. Technical inputs need to be directly aimed at facilitating this dialogue. ICIMOD has tried to draw out policy conclusions or implications, mostly at a local level, but various means of better connection to the policy development processes at national and regional levels are also needed. Making meaningful use of the new information, knowledge and skills development is a key concern of ICIMOD staff, partners and donors, especially in regard to expanding best practices that have been demonstrated.*

- **Goal 5: Enhanced regional cooperation related to sustainable mountain development**

ICIMOD is fostering regional cooperation by contributing to cross-border technical collaboration and by promoting policies and plans that bring countries together, for example on transboundary flood warning systems or biodiversity corridors. During this MTAP period, ICIMOD has expanded transboundary landscape and river basin programmes in order to bring regional member countries together around common concerns. In addition, knowledge sharing on issues such as adaptation to change, the cryosphere, and progress on geospatial solutions is seen as important to build collaboration. Examples of such include a regional workshop on access and benefit sharing of biodiversity resources successfully agreed to implement the Nagoya Protocol of CBD by the HKH countries; a regional flood information system in Bangladesh, Bhutan, Nepal, and Pakistan; a data sharing and management policy that is expected to boost regional cooperation; Koshi Basin Programme (KBP) flood outlooks and information system, implementation of a regional cooperation framework for Kailash Scared Landscape Conservation and Development Initiative (KSLCDI) which brings together China, India, and Nepal, and framework agreements with participating countries in the other transboundary landscapes; establishment of a south-south learning platform for regional REDD+ Programme; knowledge base as well as platforms that promote information sharing with a river basin perspective; and collaboration with the SAARC Agriculture Centre on an ongoing land degradation study. More than 30 institutions have also agreed to join the Himalayan University Consortium.

***QQR Observations**: ICIMOD's regional mandate is unique and is its most important attribute. Regional cooperation has been a key goal and the various channels of communication for multi-country exchange and collaboration are important and greatly appreciated by participants. Effectiveness of these channels in terms of generating action toward specified outcomes and solutions of mutual or bilateral concern will be increasingly important. Some of the challenges for substantive cooperation are apparent in the transboundary landscape activities. There has been modest progress in establishing and strengthening collaboration although improved regional cooperation is not particularly well acknowledged by RMC and donor stakeholders outside of the ICMOD centre.*

- **Goal 6: Global recognition of the importance of mountains and global resources made available to mountain people to ensure improved and resilient livelihoods and ecosystems**

ICIMOD is working closely with its regional member countries and partner organizations to raise the voice of mountain people and influence global policy arenas and bodies such as the IPCC, UNFCCC, CBD, the Ramsar Convention, and UN organizations and processes. It was reported that five institutions are using ICIMOD recommendations on global agendas and policies. ICIMOD has been able to contribute to various global forums including the global Mountain Partnership as well as

broadening its engagement with the Climate and Clean Air Coalition to Reduce Short-lived Climate Pollutants (CCAC) and is moving forward with plans to set up technology training centers in Bangladesh, India, Nepal, and Pakistan for the CCAC. ICIMOD organized a side event on mountains during the UNFCCC COP meeting in Peru in December 2014. Collaborative event in the IUCN's World Parks Congress in Sydney with IUCN's Transboundary Protected Area network and contribution to the 12th conference of the parties to the Convention on Biological Diversity. ICIMOD also contributed to mountain targets and indicators for the Sustainable Development Goals (SDGs) while identifying the top ten issues for mountain regions in the Post-2015 Development Framework. ICIMOD is a Collaborating Agency in the UNFCCC Nairobi Work Programme, and contributed to the UNFCCC's Asia Pacific Regional Training Workshop on National Adaptation Plans for the Asian region, partnered with UN-REDD to develop protocols based on international UNFCCC requirements for REDD+, and is developing a biodiversity monitoring protocol building on the Rio Conventions of UNFCCC, UNCBD and UNCDD.

QQR Observations*: The extensive involvement in international forums and processes has assisted in raising the profile of HKH region issues, Himalayan 'third pole' and 'water tower' concepts and inserting mountain concerns into Sustainable Development Goals, UN climate change planning processes and other global agendas. This global outreach and the quality of knowledge products has been a strong feature in the past MTAP period and has enhanced ICIMOD's reputation.*

3.2 Summary of Regional Programme achievements

Annex 4 provides a brief summary of the achievements in each Regional Programme based on review of documents, selected site visits and consultations with stakeholders. The main highlights are summarized below.

RP-1: Adaptation to Change

The Adaptation to Change Regional Programme includes three initiatives: The Himalayan Climate Change Adaptation Programme (HICAP), Support to Rural Livelihoods and Climate Change Adaptation in the Himalayas (Himalica), and Improving Livelihoods and Enhancing Resilience of the Rural Poor in the HKH to Environmental and Socioeconomic Changes (AdaptHimal). The implementation approach is based on joint ventures with partners, on piloting with practitioners and beneficiaries, and on a strong promotion and support of policy engagement in order to foster upscaling and ensuring impacts that strength enhance resilience and foster adaptation in mountain communities

The initiatives under RP-1 have contributed in diverse ways to the three operational pillars – a) improved understanding of the changes and responses to change, b) innovate pilots and action research on livelihoods and adaptive strategies, and c) knowledge inputs to assist policy refinement and formulation. The reporting indicates that substantial progress has been made toward achievement of planned outcomes, ranging from knowledge generation, strengthening governance mechanisms to innovative approaches for enhancing adaptive capacities and diversifying livelihood options. This includes bridging knowledge gaps on climate scenarios and impacts, improved understanding on poverty and vulnerability of mountain communities, community based early warning to flood hazards and the integration of ecotourism in sub-national development plans. It is evident that good initial results have been achieved from local level, project-specific studies and field

activities of the various initiatives. However, the wider uptake of these results beyond local and national borders and the successful RMC integration of strategies developed or supported by ICIMOD still needs to be shown. The results of the research and knowledge generation outputs are more visible than those related to policy and therefore efforts are now being made to increase policy dialogue on these findings.

RP-2: Transboundary Landscapes

The Transboundary Landscapes Regional Programme includes five landscape initiatives: Kailash (KSLCDI), Landscape Initiative for the Far Eastern Himalaya (HI-LIFE), Kangchenjunga (KLCDI), Karakoram-Pamir (KPLCDI) Wakhan-Pamir, and Regional REDD++ Himalaya. These aim to "improve cooperation among RMCs for sustainable and inclusive ecosystem management in identified landscapes for enhanced and equitable livelihood benefits, contributing to global conservation agendas." The emphasis has been on country commitments to Regional Cooperation Frameworks, basic technical work and on-the-ground measures such as harmonized vegetation and land cover mapping, Responsible Tourism Guidelines, value chain development opportunities, benefits sharing methods under CBD, and a joint UNESCO World Heritage Site application. The main outputs relate to long term monitoring plans, ecosystem management activities and innovative livelihoods development. This has created a means of establishing working relationships and enhancing connections between management authorities on either sides of the borders. It is viewed as a gradual, long term process with a 20-year horizon and regular and continuous joint activity based on common interests.

The landscape programmes have created a new awareness and recognition of the special ecological and cultural characteristics and the need for collaborative approaches and actions in these landscapes. Cooperation has especially advanced on transboundary dialogue about wildlife management, cross-border cultural and market exchanges and South-South cooperation under REDD Himalaya. With ICIMOD's support, the RMCs have gradually become engaged in scientific research and specific land management issues in conjunction with sustainable livelihoods. The initiatives have provided a means of developing the initial research, discussion and action on several of these issues. One of a planned four landscape regional cooperation agreements has been adopted and is being implemented; four of the RMCs are now using landscape level conservation and development approaches, 18 stakeholder engagements have been completed and 11 management plans and 13 livelihood improvement strategies have been produced and some 2223 beneficiaries have been identified. An established framework for regional collaboration on REDD-related landscape management has also been developed. Yet despite these collaborative efforts, the reporting and interviews indicate that substantive transboundary coordination remains a long term goal, and funding availability and maintaining commitment and interest are key determinants to progress.

RP-3: River Basins

The River Basins Regional Programme includes five initiatives: Himalayan Adaptation, Water and Resilience (HI-AWARE) Research, HKH HYCOS, Koshi Basin and Indus Basin; and Water, Land and Ecosystem Initiative special project (CGIAR). The River Basin Regional Programme has concentrated on development and application of information systems for flood and drought management, hydrological and runoff modelling and forecasting tools, climate change scenarios and impact assessments, community based early warning systems and various methods for watershed,

springshed and integrated water management. The main focus is on research and pilot interventions, capacity building and policy engagement on climate resilience and adaptation in the Indus, Ganga and Brahmaputra river basins in Nepal, Pakistan, India and Bangladesh, and on hydro-meteorological and IWRM capacity development.

RP-3 has been focussed on addressing gaps in information, methods and capacities for various aspects of river flood and drought management and IWRM. Key achievements reported include development of a regional flood information system; information platforms for Koshi Basin and Indus Basin; downscaled climate scenarios and tools to analyse water availability scenarios; improved understanding of linkages among the water-food-energy-security nexus; enhanced capacity to gather, analyse, and share data on water modelling; and regional cooperation between Bangladesh, Bhutan, Nepal and Pakistan on sharing hydro-meteorological data on a real-time basis. These are impressive results toward basin-wide and integrated approaches. It is also apparent that many knowledge and capacity gaps remain, and although a good start, some of the partner agencies have not yet been able to fully use and operate the facilities and systems provided by the programme. (see **Annex 4**)

RP-4: Cryosphere and Atmosphere

RP-4 consists of the two initiatives "Cryosphere" and "Atmosphere". The programme aims to build a regional cryosphere and atmosphere knowledge hub to collate and share the knowledge of partners working in the region. The Cryosphere initiative has been generating and disseminating updated data and knowledge on the cryosphere and technically supporting partner institutions. Activities include field base approaches as well as remote sensing activities. Data products include an operationally produced 8day snow cover composite from MODIS satellite data, data on glacier change, time-series on glacial lakes for the Koshi basin (Nepal Himalayas) and Bhutan Himalayas as well as permafrost distribution maps.

ICIMOD's Atmosphere Initiative aims to bring about effective measures and policies for reducing air pollution and its impacts within the HKH region by improving knowledge and enhancing the capacity of partners in the regional member countries. The programme plans to set up air quality and climate observatories at a number of sites ranging in altitude from 100 to 5000 meters above sea levels. Two observatories in Bhutan and two in Nepal are operational. The initiative has completed the "Sustainable Atmosphere for the Kathmandu Valley" (SusKat-ABC) field research campaign and written more than 20 peer reviewed papers on the campaign. The initiative has furthermore initiated a programme to reduce emissions from brick kilns across the region. The overall assessment of this program is very positive with a very high scientific level and some success stories where knowledge was transformed into improved policies (e.g. the brick kiln activities). However, the focus is on a few countries (mainly Nepal, partly Bhutan) rather than a regional approach.

RP-5: Mountain Environment Regional Information System (MENRIS)

MENRIS Regional Programme aims to enhance the capacities of cooperation partners and to strengthen regional information networking for effective use of information and knowledge products in developmental and environmental decision-making. Two initiatives – SERVIR Himalaya and Regional Databases are working to achieve these goals. The focus of the SERVIR initiative is on generating geospatial information, including Earth observation data from satellites, geographic

information systems, and predictive models useful to developing countries. ICIMOD's SERVIR initiative is part of the global SERVIR initiative, jointly funded by NASA and US.AID. The focus is on operational products such as snow cover, drought monitoring or a forest fire monitoring and alert system. Effective integration of these products into government programmes remains a challenge (see **Annex 4**).

The Regional Databases have been launched as a core initiative with ICIMOD commitment to establishing a systematic database management system. The key objectives of this initiative are to develop a central data repository for storing various thematic datasets generated by ICIMOD's different initiatives, provide easy access to these data, and develop appropriate policies for data sharing within the Centre and the region. There are currently 219 datasets available for download including satellite products and results from other regional programs. Furthermore, the regional database has served as a blueprint for the National Geospatial Portal for Bhutan. The overall evaluation is very positive. Through the approach to make data and results openly accessible, MENRIS is a cornerstone in the role of ICIMOD as a knowledge hub for the region. For the SERVIR part, we suggest links to other space programs (e.g. the COPERNICUS program of the European Space Agency ESA), other sensors (radar data) and evaluate better, how remote sensing data can be included in value-added products for concrete applications within and outside ICIMOD. Data sharing policy is still a critical issue on the level of RMCs and should be developed further.

RP-6: Himalayan University Consortium

This regional programme seeks to "enhance collaboration and networking among universities in the Hindu Kush Himalayan region leading to increased capacity of professional women and men for sustainable mountain development through mountain-specific education." The activities include seed grants to young professionals, mobility program, regional research programs, trans-boundary research projects, regional research workshops, co-supervision of MSc and PhD students, joint publications, and HUC data base development.

Key Factors affecting Results

Annex 4 provides a list of factors that have affected each of the regional programmes. The common factors have been synthesized into the following bullets:

Internal Factors:

- The capacity of the partners at the local level is considered key for the success of the pilot activities. The role of ICIMOD to influence the partner selection and capacity may be limited. Complex relationships can exist between direct and indirect implementing partners, some of whom have not been able to deliver approvals or outputs in a timely manner and lacked understanding of the necessity of engaging with a diverse set of stakeholders.[6]

- Extent of involvement and commitment of both civil society organisations and government agencies in testing river basin management innovations, developing capacity and supporting policy advocacy. The readiness of government partners to utilize technical assistance and to

[6] ICIMOD 2015 Annual Progress Report, P.48-49

absorb and sustain capacity building in the context of low budgets and high staff turnover is a real constraint.

- The wide range of important studies, pilot demonstrations and trainings by many partners on many different but related aspects across several thematic areas gives an impression of a series of one-off activities that need greater focus on substantive, well-defined and verifiable outcomes that have a clear basis for operational sustainability and long-term impact.

- Lack of well-defined pathways toward policy influence extending from the technical studies and pilot interventions - both translating research into recommendations and piloting findings into actionable policy measures.

- Limitations have sometimes existed in supervision and support for programme implementation, establishing common approaches and weaknesses in quality control and partnership structure including roles and responsibilities.[7] This may be due in part to the diverse nature of the components, the dispersed working locations and the lack of capacity of some of the local partners.

External Factors:

- The relatively low state of baseline information and preparedness for natural disasters and climate change, and the generally weak coordination by government of the upstream-downstream inter-relationships and slow progress in resolving transboundary cooperation on flood management has imposed external constraints;

- The Nepal earthquake of April 2015 led to delays and political disturbances and security risk in some of the project areas have adversely affected progress;

- Recognition of the globally important ecosystem and cultural values and support of international bodies and processes (IUCN, UN-REDD, etc.) for conservation has been an important, positive aspect of generating profile, commitment and funding for the initiatives;

- The uncertain availability of long-term funding in some of the landscapes and long lag times between consultations and action have had an adverse effect on partners' interest and momentum for implementation;

- Difficult and remote conditions and complicated communication and access to markets contributed to slow progress in fully establishing and linking value chain development, integrated natural resource and ecosystem management approaches and the collection of socio-economic and environmental data; and

- Maintaining a sufficient level of momentum and engagement by the research consortia and RMCs in general in the face of other time commitments has presented a challenge.

[7] GiZ, Project Evaluation Report, Conservation of Biodiversity in the Kailash-Region, May 2016

3.3 Cross-cutting Gender and Inclusive Governance Objectives

ICIMOD recognises the importance to address the issues of gender and governance for their activities within the HKH region. Gender, Governance and Inclusive development form a base pedestal of its strategic framework (see "A Strategy and Results Framework for ICIMOD – 2012" p. 2) and the "Gender and Governance Division" fosters the mainstreaming of these topics both internally (with reference to the attitudes, behaviour and procedures of the organisation) and operationally in the programmatic areas. ICIMOD follows a gender and equity policy since 2012 and a Gender Audit 2016 was about to be finalised at the time of the generation of this report.

We acknowledge the efforts made to include in each of the Regional Programmes gender-specific actions. Examples include action research in Nepal on enhancing the adaptive capacity of women leaders assessing capacities and create micro-plans; development of specific value chains in Bhutan and Myanmar with a gender focus: women leadership trainings, action research on financial literacy and flood preparedness (Assam, India and Udayapur, Nepal) specifically focusing on women beneficiaries from migrant households; workshop series on 'Empowering Women as Agent of Change' in Bhutan; identifying women leaders and their capacities to contribute to local cooperatives and women-based enterprises; establishing the focal point on gender (both within the Transboundary Landscape Regional Programme).
Within the scope of this evaluation, a discussion with the ICIMOD Gender Team was carried out. Particular consideration was given to gender issues during the various field visits, and ICIMOD documents were checked for gender-related content. Overall, ICIMOD has made great progress towards gender-relevant transformative changes during the last few years. Particularly noteworthy are the achievements related to gender integration in ICIMOD internal procedures and activities. The advancements and achievements in the various project initiatives are sometimes limited due to a lower level of gender-sensitiveness of the partner organisations.

The achievements are listed in the Gender Audit 2016 and include:

- The Gender Policy and Strategy, 2012
- The prominent mentioning of gender issues in the Medium-Term Action Plan (MTAP III) with the inclusion of gender-related outputs fin each Regional Program
- Improved gender balance in ICIMOD staffing, however, less represented in higher positions
    - ICIMOD staff: 2012 – 33% women, 2016: 41%
    - ICIMOD staff in senior positions: 2012: 26%, 2016: 28%
- Family-friendly human resource policies
- Improved gender integration in publications
- Improved gender mainstreaming in program and project design

The interviews and the field visits confirmed the statement of the Gender Audit 2016, that gender mainstreaming in program and project design and implementation has been an emphasis of ICIMOD.

QQR observations:
There is a very strong ICIMOD-internal awareness for gender aspects and a great openness by senior management for improvements to tackle issues related to gender and equity. As a results there are

specific recommendations for recruitment processes, a sexual harassment policy (in preparation), special care for mothers and females travelling as well as a meeting of the female staff members with the DG twice a year and the active participation in celebrations of the International Women's day.

There are a number of capacity building activities ongoing, including a mandatory gender-training course for all ICIMOD staff members. However, the capacity building of partners and other relevant persons (such as the BoG) could still be expanded.

The pro-active ICIMOD policy towards gender issues has triggered significant progress within ICIMOD. Particular Milestones are the integration of gender issues into the MTAP with gender respective goals in each RP and the women's leadership training workshops (carried out since 2012).

According to the personal communication of the gender team there is still an imbalance of the gender of the first authors of scientific publications. There is also a mismatch between how prominent gender is mentioned in the ICIMOD initiatives and the amount of publications tackling gender issues generated form the initiatives' work.

The gender team also highlighted the great success of the Medium-Term Action Plan (MTAP) III in prominent mention of gender issues in the outputs. However, there is the perception that the related indicators measure the envisaged outputs too restrictedly and that the real impacts and results at the strategic goal level remain unclear and are often limited.

Most of the pilot activities show a remarkable interest in and a great effort to consider gender issues. In some examples however, gender issues were not (yet) appropriately taken into account due to a limited awareness of the implementing partners (see the work in the MIID in the Shan State in Myanmar for example).

In general, the gender equality achievements within ICIMOD are substantive and have a perceived and measurable impact on the organisation and its activities. Envisaged future activities planned by the gender team, such as a 7th strategic goal which would tackle gender/equity, lead into a promising direction and the senior management should continue to support and foster them – also by means of resources. The situation appears less positive when looking at the gender awareness situation in the partnerships. More efforts in building gender – related capacities in the ICIMOD partner institutions could result in a larger impact of gender-related activities in the various ICIMOD initiatives and beyond.

Further suggestions are as follows (partly picking those recommendations from the Gender Audit that are the most effective in mainstreaming gender issues in the programmes):

- To follow the idea to develop a Gender Action Plan that would also contribute to the new MTAP and that should be developed as a participatory process within ICIMOD including both women and men.
- Gender awareness amongst the partners is seen key for gender integration into ICIMOD activities. We therefore suggest to assess the gender capacity of the partners (see also the

chapter related to partnerships) and continue to raise awareness in the partner organisations) and to continue to raise awareness within the partner organisations.

- Significant effort is being put on monitoring numbers related to gender issues such as female participants in workshops etc. Not always the same importance has been given to implementation activities that are potentially gender-sensitive. We suggest more scrutiny of gender relevance and indicators to ensure measurement of relevant outcomes in the project / programme design phase.

4. Relevance and Coherence

4.1 Priorities under the Strategic Results Framework

The programme relevance to regional and national priorities was briefly reviewed. The 2012 Strategic Results Framework specified key actions to be undertaken in 2013-2017. These key actions are also useful and relevant for the next planning period beyond 2018. The general responses to these priorities to date are briefly described below.

- **SRF 1: Increased emphasis on outcome, impact, and learning,**

The further development of the M&E systems with a focus on outcome measurement and impact pathways and assessment has been a significant response to this directive. The regional programmes each undertake analysis of impact pathways and have been assessing options for identifying policy implications and forums to draw out policy issues for the research. A lack of long term commitments to policy development processes and the challenges of government reform beyond the scope of ICIMOD activities may have limited the extent of success at policy influence.

- **SRF 2: Further efforts to engage regional member countries (RMCs) on issues of regional importance, with attention to the overlap with country priorities**

Table 2 *highlights a range of indicative activities. A scan of the Regional Programmes (**Annex 5**) shows a high level of interconnection between the initiatives. But the efforts to systematically engage RMC governments and policy making bodies are less apparent. There have been specific exceptions to this, such as the Nepal's National Planning Commission effort for example to integrate ICIMOD's solar pumps initiative into the development planning priorities. The linkages between local RP activities and national and regional priorities (see **Figure 2**) have yet to be clearly elaborated to ensure programmatic coherence aimed at the overall ICIMOD goals.*

- **SRF 3: Ensuring high-quality solution-oriented research and knowledge products including position papers on emerging issues and new topics for the region**

Table 3 provides a list of examples of research and knowledge products generated in recent years.

Table 3:
Examples of research and knowledge products within ICIMOD Regional Programmes

Regional Programmes	Research/knowledge products	Contributions to practices
1. Adaptation to Change		
Rural Livelihoods and Climate Change Adaptation (Himalica)	▪ 1 Destination Management Plan; Myanmar Ecotourism Policy and Management Strategy; CCA Education materials	▪ Methods/examples of local livelihood development analysis and piloting in five countries
Improving Livelihoods & Enhancing Resilience (AdaptHimal)	▪ Development and promotion of the Tulsi value chain	▪ Methods/examples of local poverty reduction technologies and practices in four countries
Himalayan Climate Change Adaptation (HICAP)	▪ 62 knowledge products (30 peer-reviewed articles); Himalayan Climate and Water Atlas; PVA tool	▪ Lessons for climate resilient technologies and practices, and research on CC and migration
2. Transboundary Landscapes		
Kailash Landscape (KSLCDI)	▪ Transboundary knowledge products (vegetation type map); community-based management plans	▪ Development of methodology and process for transboundary landscape management
Landscape Initiative for the Far Eastern Himalaya (Hi-LIFE)	▪ Identification ecosystem services and livelihoods interventions; regional database/sharing platform	▪ Recognition of landscape integrity and livelihood alternatives in remote areas
Kangchenjunga Landscape (KLCDI)	▪ 2 Baseline Surveys; 8 peer-reviewed articles	▪ Recognition of transboundary landscape connections and comparison of pilot sites
Karakoram-Pamir (KPLCDI) Wakhan-Pamir Landscape	▪ Rangeland policy of Gilgit-Baltistan; 3 books, 3 peer-reviewed articles	▪ Recognition of transboundary Protected Area landscapes and exchange of research
Regional REDD++ Himalaya	▪ Peer-reviewed articles, 1 PhD thesis	▪ Regional collaboration on REDD protocols and practices/experience
3. River Basins		
Himalayan Adaptation, Water and Resilience (HI-AWARE)	▪ 11 scientific papers; 44 blogs, 2 media products; 6 PhD students	▪ Assessment of basin-wide issues and research and assessment methods
HKH Hydrological Cycle Observing System (HKH-HYCOS)	▪ Regional network of real-time hydromet stations; single national platform for flood data	▪ Regional network of hydromet stations, flooding hazards inventory and other information
Koshi Basin Initiative	▪ Koshi Basin Information System and IWRM methods introduced at sites	▪ Promotion of basin-wide approaches to system data collection/analysis
Indus Basin Initiative	▪ Upper Indus Basin Information System; IWRM methods introduced	▪ Promotion of basin-wide approaches to system data collection/analysis
Water, Land and Ecosystem Initiative (IWMI Ganges)	▪ Water User Master Plans; Springsheds mapping/mgnt method	▪ Examples of water management technologies and practices
4. Cryosphere and Atmosphere		
Atmosphere Initiative	▪ Cleaner technology for brick kilns and development of air quality monitoring in Kathmandu valley	▪ Business case for redeveloping a cleaner brick industry, and airshed monitoring network development
Cryosphere Initiative	▪ Risk assessment and mitigation methods at specific GLOF sites and status of cryosphere conditions	▪ GLOF hazards inventory and other inventory data on cryosphere and permafrost conditions
5. Mtn Environ. Regional Information Systems		
Regional Database Initiative	▪ Accessible information to assist national issues	▪ Research meta-database and info. hub within the region
SERVIR-Himalaya Initiative	▪ Accessible remote sensing information to assist national issues	▪ regional centre on geospatial tools and earth observation applications
6. Himalayan University Consortium		
	▪ Enhanced capacity of member institutions	▪ Mtn-focussed curricula developed

Ten position papers have also been produced to date[8]. These forward planning discussion papers propose changes to ICIMOD's programming on top of an already complex structure. They need extensive discussion with RMC stakeholders.

- **SRF 4: Significant improvement of communication and knowledge exchange within and outside the region**

The growth in ICIMOD's budgets and activities have no doubt contributed to expanded communications and knowledge exchange as ICIMOD extends its reach to more issues and raising the profile of mountain environments. The numbers of events held and the website visits in 2015 indicate a high volume of interactions. The interviews however, suggested that despite the strong Knowledge Management functions, the connections and exchanges with and between RMCs have not always met expectations of the participants. The knowledge products are exceptional; the communication channels less so.

- **SRF 5: Collaboration with strategic partners in the RMCs to deliver programmes**

Significant action has been undertaken to engage experienced, strategic partners to deliver activities in RMCs and to lead policy-related dialogue. Close collaboration with relevant multilateral organisations (e.g., UNDP) and international research programmes (e.g., CGIAR) are less prominent, although they may have an equally important policy and capacity leveraging capacity.

- **SRF 6: Attention is given to planning, monitoring, and generating impact across programmes**

The participatory impact pathways analysis, and the extensive linkages between RP Initiatives (see Section 4.2) reflect a shift toward more integrated and results-oriented programming. The expansion of the M&E system has been a key feature of the internal changes in ICIMOD since 2012.

4.2 Complementarities and Synergies

This section reviews the level of coordination and complementarity within Regional Programme activities and between components within initiatives. In general, there are strong connections between the various thematic groups, in which the ICIMOD staff is divided. Many initiatives cover topics of several Thematic Fields. The extent of meetings required to involve staff from the various groups is an organisational challenge and time-consuming effort that ICIMOD seems to master successfully. Consequently, there is a large knowledge of the variety of initiatives throughout the whole organisation and a wide understanding of the related tasks and challenges. In order to provide a more detailed overview of the activities and groups we have mapped the relevant linkages in the Tables 4-5 and in **Annex 6**.

Annex 6 provides a detailed list of interlinkages between activities within Regional Programmes' initiatives and the four thematic focus areas as well as the two cross-cutting themes gender and governance. **Table 4** provides a graphic overview of a rough interpretation of these interlinkages aggregated at Regional Programme level. The tables show that, as one would expect, the majority of activities in the Adaptation to Change Programme concern Livelihoods and the cross cutting area of Governance; less activities are related to Ecosystem Services and the gender aspect. In the

[8] ICIMOD, Summary of ICIMOD Position Papers, Submitted to Programme Advisory Committee, May, 2016

Transboundary Landscapes Programme, the activities are spread relatively equally over all five thematic areas with an emphasis in Livelihoods and Governance.

The initiatives of the River Basins Programme contribute to the livelihood thematic fields but are also linked to Geospatial Solutions and the two cross-cutting areas. The vast majority of the activities in the Cryosphere and Atmosphere Programme are thematically placed in water and air and methodologically in the Geospatial thematic field. Fewer activities in the initiatives have a gender aspect, however the Atmosphere initiative is active in dealing with governance issues. The Mountain Environment Regional Information Systems Programme has a clear focus in the Geospatial thematic area. Main areas of benefit of the technologies and products developed in the initiatives are Livelihoods and Ecosystem Services.

Table 4 below provides a summary of the linkages between the Regional Programmes. There are thematic similarities and/or overlaps in the geographic area(s) under consideration. In several areas Adaptation Change projects have a similar thematic and/or geographic focus as Transboundary Landscape projects. The implementation of the climate smart villages initiative approach developed in HICAP (RP1) is expanded in the Himalica initiative. The pilots were implemented in four villages in the Koshi sub-basin, the core area in one of the RP3-River Basins initiatives.

Most of the initiatives in the Transboundary Landscapes Programme have direct links to the River Basin initiatives on technical and policy levels.

Table 4: Linkages between Regional Programmes and Thematic Focus Areas

ICIMOD Regional Programmes	*Thematic Focus and cross-cutting objectives within programme activities*					
	Livelihoods	Water & Air	Ecosystem Services	Geospatial Solutions	Gender X-cutting	Governance X-cutting
1. Adaptation to change						
2. Transboundary Landscapes						
3. River Basins						
4. Cryosphere & Atmosphere						
5. Mtn Environ. Reg. Info. Sys.						
6. Himalayan Univ. Consort.						

Very strong linkages	Strong linkages	Medium linkages	Little or no linkage

The study areas of the River Basin Programme initiatives are often used to implement pilots in other programme initiatives. Flood early warning systems are a cross-cutting activity in the River Basin, Adaptation to Change as well as Mountain Environment Regional Information Systems Programme.

The results of the monitoring activities carried out in the Cryosphere and Atmosphere programme are used in the River Basin Programme.

Technologies and products developed in RP-5 are used in all other Programmes. Especially strong are the links to the Cryosphere and Atmosphere Programme as the initiatives require data processing and database management. RP5 provides services to all other Programme's initiatives such as the elaboration of datasets (change in land cover, forest) and dissemination of geospatial information and technological development for the Adaptation to Change Programme initiatives.

Tables 5 and 6 only give a rough overview of the connections between the Regional Programmes and with the Thematic Fields. **Table 4** suggests that the existing work linkages within the Initiatives reflect well the intended thematic overlaps and indicate useful synergies for example of Livelihoods with the RPs Adaptation to change, Transboundary Landscapes and River Basins. Gender and governance are taken into account in most of the RP's initiatives and can hence be considered as truly cross-cutting topics. **Table 5** implies that there may be a lack of connection between RP2 Transboundary Landscapes and RP3 River Basins, the closure of which could be of benefit for both RPs.

Table 5: Implementation linkages between Regional Programmes

RP-1 Adaptation to change	RP-2 Transboundary Landscapes	RP-3 River Basins	RP-4 Cryosphere and Atmosphere	RP-5 Mountain Environment Regional Information Systems	RP-6 Himalayan University Consortium
RP-1 Adaptation to change	- REDD+ ecosystem level adaptation strategies	- HI-AWARE – Springshed initiative - Energy – UIIB - Basin-level flood vulnerability and risk assessment at the micro-watershed level - Training programme implementation of community-based flood EWSs - Climate smart village initiative in Koshi Basin	- CI – Permafrost (HKPL)	- Satellite and climate data used to understand grassland degradation trends to identify hotspots of change and provide evidence for optimizing transhumance grazing systems - Drought monitoring applied in HICAP - Forest Fire information system - Agriculture monitoring system (MODIS) - SMS system - Agriculture Atlas	
	RP-2 Transboundary Landscapes		- Air pollution and carbon monitoring (REDD+)	- RDI – Data from landscapes - Time series land cover data - Deforestation trends - KSL information system	- Landscape Governance Curriculum Design
		RP-3 River Basins	- Cryosphere monitoring in partnership with Basin study areas	- KBIS - Drought monitoring applied in Koshi Basin - Regional and national flood information system	
			RP-4 Cryosphere and Atmosphere	- Glacier monitoring RS - Snow water equivalent - Decadal glacier change visualisation in Mountain Geoportal and ArcGIS Online	Collaboration with Atmosphere initiative
				RP-5 Mountain Environment Regional Information Systems	

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4.3 Comparative Advantages and Value-added Role

There is a high degree of consensus about the strengths of ICIMOD's operations. The following aspects of comparative advantage and value addition were noted during the interviews, in order of importance to respondents:

- High quality research on HKH issues is a key strength of ICIMOD
- Technical expertise to contribute to national discussions and issues (including earthquake)
- Mandate and capacity to facilitate exchanges between RMCs
- Potential ability to access high levels officials of government and to have influence

- Development of new data sets/databases (hydro-met) and analytical methods (e.g., PVA)
- Trust in ICIMOD's project coordination and management/advisory support services

These comparative strengths of ICIMOD are well recognized, although the science and knowledge contributions of many of the livelihood and local field activities are sometimes less apparent in terms of a wider, systemic impact, for example on agricultural extension services, flood risk management, economic diversification and other ongoing issues. Local level achievements by model farmers using technologies that have been tested and promoted in similar projects or programmes by the implementing partners, although important for local beneficiaries and a contribution to the body of evidence on site performance of the interventions, does not seem to have significant scale up effect. Implementation design and partners are key to pushing the innovation testing and learning elements. Effective utilization of and emphasis on the value-added science and knowledge contribution from ICIMOD is closely tied to the ICIMOD vision and mandate.[9]

The value-added aspect could be further strengthened by direct knowledge management linkages with other similar international and national programmes to facilitate regional learning and consensus building. For example, the HICAP and spring rehabilitation efforts occur alongside many parallel water management projects aimed at climate change resilience that could benefit from an RMC regional learning and collaborative approach.[10]

[9] Comparison can be made with similar organizations. See for example, the three roles adopted by the *International Water Management Institute*: a) think tank driving innovative research and generating ideas for solutions; b) provider of science-based products and tools; and c) facilitator of learning, strengthening capacity and achieving uptake of research. IWRM Strategy 2014-2018. The new streamlined approach of the *Mekong River Commission* has focussed more narrowly on four results: a) Enhancement of national plans, projects and resources based on basin-wide perspectives; b) Strengthening regional cooperation; c) Better monitoring and communication of the Basin conditions; d) Leaner River Basin Organisation; MRC Strategic Plan 2016-2020.

[10] See for example, the system being implemented by the Nepal Climate Change Support Programme (NCCSP); Kailash Sharma, Raj Kumar GC, Michael Cook, and Corey O'Hara, *iDE Guidelines for Planning, Design, Construction and Operation of Multiple Use Water Systems (MUS*), 2016.

5. Programme Effectiveness

5.1 Current Programme Theory and Assumptions

The underlying theory of change for the pursuit of the six ICIMOD Strategic Goals focusses on applying scientific research to important regional issues, facilitating conservation and sustainable use of significant transboundary landscapes, building capacity of the RMC partners, introducing innovations to address environmental, natural resource, livelihood and risk reduction concerns, and promoting and enabling collaboration and mutual learning between the RMCs. The design strategy is based on the following:

- High quality, relevant and applied scientific research related to regional scale and trans-boundary issues;
- Technologies, approaches and practices, appropriate to the region, designed and tested to address the regional and transboundary issues;
- Regional convening role of ICIMOD used to facilitate cooperation, exchange and collaboration between RMCs in applying scientific knowledge on these issues;
- Innovations piloted at local, national and multi-country scales and related management and
- Policy advice drawn from the experience that can be scaled-up to have a significant impact on the region.

The key assumptions associated with this theory include:

1. Research topics reflect key issues of regional and/or national importance to RMCs;
2. Research results provide practical advice to address the issues from a multi-country perspective;
3. Piloted technologies, approaches and practices prove effective and provide evidence of results;
4. Implementation partners acquire the necessary skills and capacity to utilize and sustain suitable technologies, approaches and practices;
5. Mechanisms are available to broadly disseminate and scale-up the technologies, approaches and practices; and
6. Lessons are documented and shared among the RMCs and this exchange leads to ongoing collaboration between scientists and other groups across the HKH region.

These assumptions can be used to assess the design characteristics and coherence (level of consistency and integration) of ICIMODs selection of programme activities.

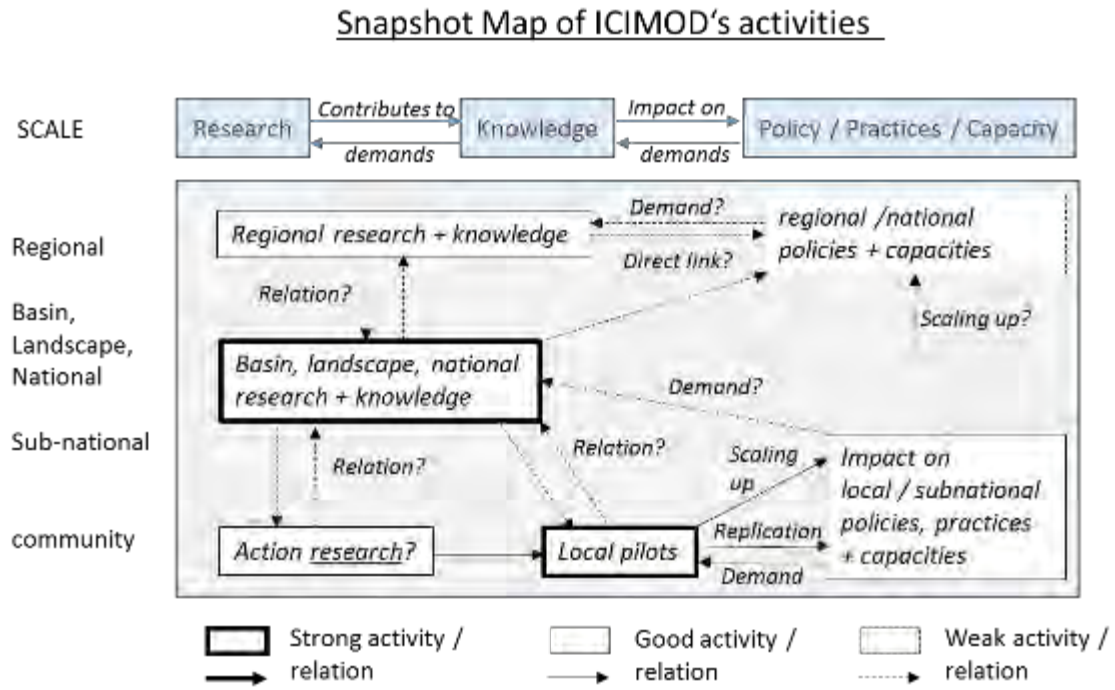
The ICIMOD partnership approach is central to programme implementation. Over 200 partners are involved in various aspects of implementing the 17 Regional Programme initiatives and other special initiatives and outreach activities. The partners serve as co-investigators, facilitators, delivery agents and beneficiaries. The ICIMOD Strategy and Results Framework aims to develop a larger strategic partnership orientation, individual country plans that are aligned with community priorities, and more targeted communications for the different countries.[11]

The Regional Programmes are implemented by ICIMOD-managed partnerships, with cross-RP collaborations as needed (see Section 4.2). “Strategic thematic areas” with related objectives are

[11] ICIMOD Strategy and Results Framework, 2012, p, 8.

layered across the regional programmes.[12] All of the four themes namely – Livelihoods, Ecosystem Services, Water and Air, and Geospatial Solutions – have been successfully developing methodologies, frameworks, guidelines, and position papers and have identified new topics. (Not clear if they are focussed on specific RP outcomes) In addition, ten topics of Centre-wide importance that run across initiatives and regional programmes were recently identified, including: disaster risk reduction framework, adaptation to change, modelling, climate services, tourism framework, energy, poverty and vulnerability analysis, resilience, and policy. Working groups within ICIMOD are discussing programming opportunities.[13] This makes for a complex programming environment.

The ICIMOD scaling-up approach is a key element in delivery of results. It has several layers for leveraging effects at the regional, national, sub-national and community level depending upon the design of the activity. **Figure 2** below, summarizes our findings on the current levels of research, knowledge production and policy impact, its spatial scale and the relation between the elements. The figure shows ICIMOD's impact chain from research to knowledge to effect on policies and practises, spread over several spatial scales. From research on the regional level, to local pilots on the community level, impact on practises on the community and sub-national level back to policies on the national or even regional level. Our observation is, while conceptually very clear, in reality this "chain" only partly works. We have seen high quality activities on each of the single scales and activity fields (e.g. regional research, local pilots) and we appreciate that on a conceptual level, linkages between the scales are designed. But on an operational level many of the linkages are relatively weak.



[12] The Strategy and Results Framework (Oct 2012) specifies that over the next five years ICIMOD will "provide innovative approaches to support the Regional Programmes through integrated data management and a spatial analytical framework; customize new technologies in geospatial science to adapt them to mountain-specific situations within ICIMOD's Thematic Areas; and continue to build capacity with RMCs and to promote partnerships and regional cooperation for information sharing and exchange.", 2012, p.19.

[13] ICIMOD 2015 Annual Report, 2016.

Figure 2: Conceptual outline of the research-knowledge-policy/capacity continuum

The implications of this analysis are that the new MTAP and strategy should use this concept of Scale and analyse whether the real connections between the different activities (research, action, capacity building, impact on policies and practises) have worked well and how they can be made more efficient in future. In particular, the role of local pilots, which has grown tremendously in recent years, should be evaluated. Furthermore, the opportunities for a more direct impact on policies on national and regional level by a deeper integration with RMCs should not be forgotten. ICIMOD's internal paper "Enhancing policy Engagement and influence in the Hindu Kush Himalaya Region" gives very good recommendations for this more direct pathway.

Some of the more successful ICIMOD-developed technologies, such as the automated community based early warning system[14] have not yet been picked up as a standard approach in India and Nepal, although this may require more time and government resources and initiative. The identification of piloted innovations worthy of scale-up efforts either by ICIMOD or by other organisations has yet to occur but some promising results may emerge from solar pumps, brick kiln technologies, etc.

There are many different approaches to scaling up to a policy level and scaling out geographically and across sectors.[15] The DFID-UK strategy has been based on three pillars: 1) promotion of partnership with public institutions; NGOs, private sector and other research institutions; 2) communication and dissemination of results and; 3) stakeholders' involvement and dialogue with policymakers.[16] The CGIAR scale-up strategies highlight private sector value chains, policy engagement, information and communication technologies and agro-advisory services.[17]

A core task for ICIMOD is to generate reliable evidence of the proven technical and financial viability of the innovations being piloted in the HKH mountain context so that they can be fully adopted within government policy and institutions, sector practices and/or the marketplace. This may involve a range of 'upscaling steps', or 'entry points'. For example, as observed in the Regional Programmes: formal acceptance of a methodology for participatory ecosystem functions assessment (China); endorsement of solar pumps within the National Planning Commission priority setting (Nepal); approval of a tourism destination plan to guide investments (Myanmar), brick industry adoption of clean technology (Nepal), etc. But there remain many uncertainties about the promise and potential of scalability. For example, a brochure states that stakeholders will be engaged so that "there is an appropriate mix of incentives and tools to use HI-AWARE generated research findings and pilot outcomes to improve the livelihoods of vulnerable groups in the region". They are still working on

[14] The information and communications technology (ICT) enabled system uses a flood sensor attached to the transmitter to detect rising water levels. When the water reaches a critical level, a signal is wirelessly transmitted to the receiver. The flood warning is then disseminated via mobile phones to appropriate agencies and vulnerable communities downstream. Critical flood levels are set with the help of local communities.

[15] See for example, a problem-solving approach for facilitating policy and institutional change in *IFAD's operational framework for scaling up results*, IFAD Programme Management Dept., Dec. 2015.

[16] Landell Mills Development Consultants, Evaluation of DFID's Performance Management Funding of International Agriculture Research Centres, Final Report Jan 2016, p. 5

[17] Westermann O, Thornton P, Förch W. *Reaching more farmers – innovative approaches to scaling up climate smart agriculture*. CCAFS Working Paper no. 135. Copenhagen, Denmark: CGIAR, Research Program on Climate Change, Agriculture and Food Security (CCAFS), 2015.

how to establish such a mix (see **Annex 4**). A ladder of scaling-up strategies and methods may need to be customized to the Initiatives and countries.

5.2 Partnerships Effectiveness

ICIMOD's activities strongly relate to and rely on their partnerships. Consequently, ICIMOD invests extensive resources in managing of and reporting on partnerships. The data on partnerships available for this QQR has been made available in partnership reports compiled per Regional Programme.. ICIMOD follows a partnership strategy (2013) that describes in detail the relations and the challenges of ICIMOD's partnerships. The strategy recognises four different types of partnerships (strategic & policy, implementation & operational, network & knowledge, development), which require substantial variation in how they are approached and how they are maintained. Additionally, in the partnership reports the partners are split in the following 5 groups: academic, government, NGO / INGO, Private and Research. A governmental partner can be either strategic, or linked to implementation & operation, or can be both.

ICIMOD had 234 "implementing partnership agreements" during the period January 2013 to June 2016 with a total contract value of $24.6 M.[18] It currently has 79 such partners (June 2016), the largest number being with organisations from Nepal (21) and India (20). Total "institutional collaboration partnerships" for the 2013-2016 period were 251, with funding of $4.35 M. Many of the partnerships are small scale, short term collaborations. For example, in 2015, 75% of the partnerships in Nepal had budgets under $100,000 and almost 60% were for a contract period less than one year.[19] In India and Pakistan, agreements with budgets less than $100,000 made up almost 75% and 80% of total partnerships, respectively, with at least one-half less than two years' duration.[20]

The following tables give an overview of (1) the ICIMOD partners and their field of activities as provided by the country partnership reports and (2) the type of partners involved in the implementations:

Table 6: ICIMOD partners and their fields of activity taken from the country partnership reports (2013-2015) (a partner can involve more than one category)

Country	strategic & policy	implementation & operational	network & knowledge (of which HUK)
Afghanistan	3	1	7 (2)
Bangladesh	8	10	14 (2)
Bhutan	5	9	9 (3)
China	12	9	18
India	5	23	40 (8)
Myanmar	2	3	3
Nepal	24	39	43
Pakistan	7	7	25 (3)
others / international	66	101	159

[18] ICIMOD Partnership Report, June 2016.
[19] ICIMOD, Nepal Partnerships Report, 2016, p. 6.
[20] ICIMOD, India Partnerships Report, 2016, p. 5; and Pakistan Partnership Report, 2016, p.6.

Table 7 Type of partners involved in the ICIMOD implementation

Country	Implementing partners (2013-2016)	Government	NGO / priv	Research	Universities
Afghanistan	**0**				
Bangladesh	**10**	3	2	4	1
Bhutan	**9**	5	1	1	2
China	**11**			9	2
India	**23**	3	10	9	1
Myanmar	**4**	1	2	1	
Nepal	**32**	4	18	7	3
Pakistan	**12**	2	6	3	1
others / international	**13**				

Source: ICIMOD, 'Partnerships and budget by initiative' – allocation to the types of partner by the consultants by their best of knowledge)

These tables show that the type of partners involved in implementation varies strongly between the countries. They also show that there is an overrepresentation of partners from Nepal. In addition the partnership reports show that many research institutions have been allocated tasks related to policy and strategy development.

While the Partnership Strategy is critical to leveraging impact, the partnerships tend to be driven by availability of targeted funding and less by engaging regional RMC and other partners to jointly pursue common or related objectives. There is an argument for more strategic international alliances that can help to enhance the impact of findings and innovations from ICIMOD's programmes. For example, CGIAR is developing tools for comprehensive scaling-up such as the *decision-support tool for scaling out climate-smart agriculture in South Asia* and other initiatives;[21] the *Climate and Development Knowledge Network (*CDKN) and the Nepal Ministry of Agriculture are identifying opportunities for costed pathways to scale-up viable practices for climate compatible development benefits[22]; UNDP is pursuing climate change, climate financing and DRM strategies in the HKH region that could be aligned with the ICIMOD programmes;[23] regional climate finance support programmes are assisting in revisions to national budgeting systems to incorporate climate change response priorities in conjunction with Public Financial Management (PFM) capacity building.[24]

There may be many more opportunities for complementary and synergistic partnerships within a programmatic framework of mountain and HKH priorities. The interviews suggested that ICIMOD could further serve its unique function to facilitate the process of establishing region-wide research

[21] https://ccafs.cgiar.org/decision-support-tool-scaling-out-climate-smart-agriculture-south-asia#.VxHOS0cqg2w *Climate-Smart Agriculture Rapid Appraisal (CSA-RA), A Prioritization Tool for Outscaling CSA Step-by-Step Guidelines*, International Center for Tropical Agriculture (CIAT), 2015.

[22] http://cdkn.org/project/scaling-climate-smart-agriculture-nepal/?loclang=en_gb

[23] For example, UNDP Nepal has applied for funding of four projects under the *UNDP-China Partnership on South-South and Global Cooperation* to address a) mini hydro and mini grid electricity services, b) multi-hazard preparedness, c) multi hazard resistant housing, and d) renewable energy solutions.

[24] See the global Partnership for Climate Finance and Development; https://www.climatefinance-developmenteffectiveness.org/about/about-us

and information or knowledge gap-filling priorities in direct consultation with the RMCs and other major bilateral and multilateral development programmes in the region. The tactics for implementation of the Partnership Strategy may need to be re-assessed if these broad external relationships and opportunities for informing policy development are to be considered.

The partnership relationships and operational modalities with RMCs are also important. Partnerships are primarily aimed at assisting ICIMOD programme delivery at the field level. ICIMOD's expertise can occasionally overshadow or neglect their RMC counterparts. This should be a concern for advancing regional cooperation.[25] Overall, however, ICIMOD has been relatively effective in their partnership management for programme delivery. The rapid growth of ICIMOD and its partnership portfolio requires a high level of investment and strengthening its efforts to monitor and evaluate the partners' performance in order to focus future work on those partners with the highest results.

The number of partners to be managed by ICIMOD is very large and consistently growing. ICIMOD should consider more explicitly carrying out a quality assessment in their partnership management and including related information into their partnership database. Future cooperation could then mainly consider partners with good performance. Finally, this could lead to the generation of core group of partners with strong relations to ICIMOD in which ICIMOD is willing to invest solidly and a group of 'lose' partners in which ICIMOD will invest less.

The capacity of the partners is critical to results effectiveness and efficiency. Partnership selection seems to be at least partly driven by occasion and not by strategic planning. We suggest that partners are selected more carefully and according to objectives and strategy.

5.3 Monitoring and Evaluation System

The M&E system has been greatly expanded in the last few years to include monitoring at the level of activity (partners), Initiatives, Regional Programmes and Strategic level. Baseline, target and cumulative progress are assessed using outcome and output indicators tied to logframes. The quantitative measurement of progress follows a detailed framework and has produced impressive statistics on programme achievements.[26] In addition, the process has adopted an Impact Pathways Analysis approach that endeavours to link results to a theory of change for each programme.[27] Pilot studies using randomized control trials are also underway. The automated online entry of data from field partners has also provided an efficient process for generating reports.

The system provides a good snapshot of implementation progress, reflecting the programme outputs and expenditures that drive the indicator numbers – for example number of participants engaged, papers published or hydrological models developed by the activity. But actual changes in end results – for example the desired management capacities, risk reduction changes, regional cooperation levels, etc. are more difficult to observe in the data. When you add the subjective task of

[25] For example, ICIMOD's recent presentation to a Nepal parliamentary committee on GLOFs apparently did not acknowledge the work being done by their national counterparts in government nor consider a joint approach to informing decision makers and advocating for more resources to assist the agency.

[26] ICIMOD, Monitoring and Evaluation Framework for Medium Term Action Plan III (2013-2017) Indicators, Baselines and Targets, 2013.

[27] ICIMOD, Institutionalizing Theory of Change & Impact Pathways, The Case of ICIMOD, 2014.

implementers self-rating - for example, whether introduced concepts or tools were "taken up", or the number of estimated beneficiaries, the reliability of the numbers may be less certain. There is little information from the system (and the 17 major programme initiatives) that suggests any suboptimal performance or lessons that may have been derived from interventions that failed. (E.g., limited uptake is noted in Annex 4 in several RP's implementation but not reflected in reporting) Like many similar organisations, reporting tends to promote the impression of success while more objective scrutiny and peer review, including field visits, often reveal a more complicated story about achievements. The RP logframes and general M&E approach provide a systematic approach to measuring results and tracking progress against targets, but the reality is that the constraints to use, uptake and capacity to sustain technical assistance present formidable challenges for ICIMOD that are sometimes under-estimated. Annual reviews with partners and donors seem to apply more evaluative rigor to assessing the achievements.

Despite these reservations, stakeholders and donors are generally satisfied with the M&E system, although some RMC partners requested a stronger narrative of achievements at the country level. The SRF and the M&E framework and reporting system is sometimes viewed as overly complex. The M&E framework also does not fully define a role for external evaluations[28] and for internal quality assurance processes to verify whether programme initiatives are, monitoring data considered, actually making substantive progress toward an expected outcome, and whether such advances are sustainable. This is the oversight duty of the programme coordinators, thematic team leaders and others.

The M&E processes have endeavored to obtain some feedback from participants. A survey of trainees was undertaken to self-assess the use of skills acquired during training and found a high degree of confidence that such skills will be applied: "capacity building support provided by ICIMOD has positively contributed to enhance the capacity and competence of individual as well as institutions."[29] Efforts have been made to combine training and planning. For example, customized training on spring hydrogeology for enhancing knowledge and skills of partners and key local resource persons from the Kailash Sacred Landscape sites in India and Nepal was provided and participants and ICIMOD prepared action plans indicating how they intend to make use of the learnings from this training in their future works.[30]

A recent review of DFID UK's performance management funding for several agriculture research centres, including ICIMOD, indicated that the main challenges concerned ways in which they were able to measure impact.[31] In the ICIMOD case, they found good value for money in the commitment to and progress toward ex-post impact assessments and in the quality and quantity of scientific outputs. One area where performance lagged was in regard to monitoring and evaluation of mountain agriculture and climate change projects through robust impact assessments and end-user

[28] The ICIMOD Joint Financing Guidelines state that the "Funding Partners will, to the extent possible, refrain from conducting unilateral reviews, evaluations and/or audits of the Programme".

[29] ICIMOD, Findings of Tracer Studies on Effectiveness of the selected trainings conducted by ICIMOD, n.d.; n=1078 HYCOS initiative, SERVIR initiative and Cryosphere initiative trainees 2012-2016.

[30] Deepening spring hydrogeology knowledge, http://www.icimod.org/?q=19115

[31] Landell Mills Development Consultants, Evaluation of DFID's Performance Management Funding of International Agriculture Research Centres, Final Report, January 2016.

behaviour metrics. Recommended actions included more elaboration of a theory of change and establishing performance indicators at the outset. This is now being gradually addressed through the impact assessment processes. Whether it can provide sufficient insight into programme outcomes and overcome the traditional biases associated with self-assessment may need further discussion. A sharper focus on core RP results that reflect realistic changes achievable within the MTAP cycle is suggested.

ICIMOD staff and others called for more compelling evidence from impact assessments – proposed and underway (in 2015, two impact evaluations were initiated: one on climate smart villages and another on solar water pumps for vegetable farming.) As part of the monitoring processes, routine collection of data on performance of innovative approaches and interventions would help to compile a body of evidence and the business case for investing in and expanding use of new technologies and practices. For example, field trials and piloting of 'climate smart' methods in the HICAP Initiative are having some positive effects on household food security and incomes but the current data are mostly anecdotal, not standardized and only weakly linked to extension learning systems. Candidate technologies for wider promotion and replication are to date only informally identified. Reliable performance data are a critical part of a "knowledge to extended and sustained use" concept and the ICIMOD mission as a knowledge-based learning organisation and best practices advisory service to RMCs.

6. Governance and Management

6.1 Management Structure and Operations

Overall, the management structure and operational processes have been effective at responding to the rapid growth in programme activities and in the shift toward knowledge-based action with the Science-Piloting-Policy-Practices/capacity continuum which is now part of ICIMOD's strategy.

A brief review and discussions on the management systems within ICIMOD highlighted the following:

- The RP and thematic activities function within an arrangement that needs to be re-considered to enhance the central focus on RP core results. The complex cross-cutting matrix structure between thematic groups, regional programmes and multiple programming objectives, in addition to some organisational inconsistencies (overlap between MENRIS RP and Geo-spatial theme; unusual grouping of Cryosphere and Atmosphere initiatives) suggest a need to consider actions to streamline and simply the structure wherever possible.

- One area in need of improvement is the liaison and communication process at the Board, Programme Advisory Committee and Executive levels with RMCs. While there are established channels through country representatives and focal points for RMC input and dissemination, ICIMOD's substantial programme information and website content about activities and achievements may not always be reaching the right stakeholder audiences. Questions of whether ICIMOD should have country sub-offices and/or coordinating committees were presented to the QQR team in the context of an inter-governmental

service organisation. Both the strategies and the activities are sometimes not well understood. The 'partnership relations management systems' could be expanded to monitor and facilitate smooth working relationships with both RMC and national implementation partners.

- The excellent KMC "Knowledge to Use" framework is at the heart of ICIMOD's vision and operations. Guidelines are proposed to institutionalize the framework. Discussions with staff and partners suggested that further efforts to execute and raise the profile of this framework inside and outside the organisation are needed. A perception that ICIMOD's research/piloting activities do not lead to significant, observable systemic changes persists within RMCs and other stakeholders, reflecting either performance doubts or communication weaknesses.

- ICIMOD has a very well structured and organised approach to operational management. Work planning within the ICIMOD teams however needs to be customized to better suit the partnership agreements and activity implementation tasks. For example, some activities are independent research studies while others are co-implemented technical assessments and still others are client-oriented support services. The particular requirements and timetables of each of these partnerships need to be considered so that staff workloads and project needs can be effectively balanced, which reportedly is not always the case. Further, the limits of staff support for specific projects may need further clarification, including how far to supplement capacities and resources ('hand-holding') of the implementing partners. Staff workloads appear to be affected by the relative capabilities and experience of the implementing partners and their sub-contractors.

- The ability to attract and retain experienced professional staff within ICIMOD and also within the strategic partners is a key factor in ICIMOD's success. Availability of higher level expertise was noted as a key determinant in affecting progress toward results. It was also noted that recruitment of Chinese experts is difficult due to comparably lower incentives than at Chinese institutions.

- Donor's expectations about their role in programme implementation vary between silent partners and working partners. While the basic protocols for acknowledgement are being met, more recognition of the joint aspects of the outputs and appreciation of the working partnerships is sought, especially at ICIMOD events. Donors also sometimes have an expectation that ICIMOD as an intergovernmental organisation has some special access to policy levels which in reality does not always occur depending upon circumstances and individuals.

- Risk management issues have been carefully considered and rated at institutional, programmatic, and initiative levels.[32] It was observed that internal reporting procedures are not always able to capture field issues and quality assurance and risk concerns, especially where project coordinators are over-extended. Some oversight spot checking

[32] ICIMOD, Risk Management Strategy, Draft May 2014.

and discussion of implementation would help to provide additional checks on progress in conjunction with re-visiting the risk log and the ratings on a regular basis.

- Some interested RMC stakeholders want more information on available resources and expertise within ICIMOD and how to access them. The limited translation of key material into regional languages was also noted as a communication constraint.

6.2 Delivery Efficiency

The volume and breath of ICIMOD deliverables and delivery partners are remarkable: 17 major initiatives, each with a set of different components (project activities), covering multiple countries and implemented by a large number of partnerships (234 in 2013-2016), most of which are less than one year duration and under $100,000 budget. The management challenges are significant, most notably ensuring timely completion of activities, coordination of partners, quality control of outputs and effective supervision and reporting on progress. Working with invariably slow government processes, organisations with limited capacity and remote locations all present operational constraints.

Annual expenditures have been close to budgeted amounts – 98% in 2015 and 104% in 2014[33], which suggests accurate work planning and execution of deliverables.

The QQR-4 report (2006) made suggestions to improve efficiency, including identifying cost reduction potential, avoiding commitments not fitting core competencies, staying within current overhead cost level or cutting down costs per dollar spent on programmes, clarifying internal service provider-client relationships and responsibilities and moving towards leaner work flows and management processes, and investigating possibilities of speeding up recruitment procedures.[34] In 2014, ICIMOD undertook several major initiatives to improve internal organizational efficiency, including a change management process to improve the matrix structure, remove hurdles, and smoothen the process of integration and multidisciplinary working relationships, an "ICIMOD Happiness Index Survey" to improve internal staff relations and adjusted internal approval systems by the Internal Efficiency Committee.[35] ICIMOD has also provided financial management training to its major partners and has established project management training processes for new officers which enhanced operations.

The issues identified during the QQR included minor delays in reporting and in obtaining government approvals, as reported by informants, and delays created by external factors. Any significant concerns mostly relate to difficulties in maintaining long term commitments to projects from the participating governments in the initiatives, especially when staff changes within partners and ICIMOD occur regularly. Last year, 20% of ICIMOD staff turnover occurred (43 recruited for regular staff of a total 204 staff in 2015).

[33] ICIMOD 2015 Annual Report, 2016, p. 24
[34] ICIMOD, Report of the Fourth Quinquennial Panel, July 2006, p.41
[35] ICIMOD 2014 Annual Report, 2015, p. 26.

The automation of financial and reporting systems has made a significant difference in the general efficiency of management. There are still complaints about low internal thresholds for procurement approvals within approved budgets and suggestions for more flexibility, but this may be the burden for maintaining rigorous financial accountability standards.

7. Funding Challenges and Opportunities

7.1 Programme Costs

ICIMOD's budgets have doubled in the past five years from 14 to 28 million USD. Over the 2013-2015 period, programme funding has been in the range of $21-27 million annually. The ratio of funding types has been 55-65% Project Funding (from individual donors), 30-40% Core Funding (from regional and non-regional countries) and about 5% Programme Funding (restricted to specific activities). Total regional member country contributions have increased three fold in the four years from about 0.5 M in 2011 to 1.57 M in 2015.[36]

Table 8 shows the breakdown of costs by specific programme components for 2014 and 2015. Three quarters of these (75-77%) were for project expenditures and only 11-15% were for core costs (covering cross-programme activities). The largest costs in 2015 were for RP-2 (22.5%), RP-1 (19.8%), RP-4 (17.1%) and RP-4 (14.5%). Cost projections have been prepared taking into account the major adjustments for currency exchange rate fluctuations.

Table 8: Programme implementation costs (2014-2015)

	2015				2014			
Programme	Core Cost	Programme /Other cost	Project Cost	Total Cost	Core Cost	Programme /Other cost	Project funding	Total Cost
Adaptation to Change	38,347	-	4,923,879	4,962,226 19.8%	224,743	56,913	4,486,277	4,767,933 22.1%
Transboundry Landscapes	118,484	1,598,404	3,933,802	5,650,690 22.5%	203,476	1,024,567 1,297	3,259,777	4,489,117 20.8%
River Basins	588,086		3,047,252	3,635,338 14.5%	345,250	7,887	2,371,300	2,724,437 12.6%
Cryosphere & Atmosphere	123,994		4,160,687	4,284,681 17.1%	277,234	3,430	2,777,405	3,058,069 14.2%
Regional Info. Syst.	56,370	43,422	2,146,931	2,246,723 9.0%	77,084	43,278	1,929,665	2,050,027 9.5%
Himalayan U. Consort.	150,325			150,325 0.6%	67,170	13,693		80,863 0.4%
Thematic Areas	1,611,717	125,858 441,403	193,775	2,372,753 9.5%	1,694,620	71,403 489,248	3,844	2,259,115 10.5%
Know. Man. & Communic.	180,958	583,231	65,482	829,671 3.3%	398,859	388,975	100,030	887,864 4.1%
External Projects			893,077	893,077 3.6%			1,285,070	1,285,070 5.9%
Total	2,868,281 11.4%	2,792,318 11.2%	19,364,885 77.4%	25,025,484	3,288,436 15.2%	2,100,691 9.7%	16,213,368 75.1%	21,602,495

Source: 2015 Annual Report, 2016, p. 156-157; Programme/Other cost = Restricted Programmes and Others

[36] ICIMOD Funding Strategy Oct 2012; ICIMOD Funding xls, 2016. This is currently 39% of Core Income of $4 M; the previous reviews have suggested a target of 50% of Core Income from RMCs.

7.2 Funding Gaps and Needs

Funding sources, amounts and activities supported are shown on **Table 9** below. The SRF states that "core funds are to be used to finance development of new ideas as well as essential leadership functions (Board and Directorate) and statutorily defined information, knowledge management, and communication functions" and include full cost recovery for project management overheads.[37] The amount provided for core funding has ranged from 30-40% of funding per year. ICIMOD management would like to maintain this high level of commitment to core funding because it provides flexibility for higher level focus on programme outcomes and impacts. This is consistent with the QQR findings on the need for greater emphasis on strategic, regional scale results; core funding will be increasingly needed to provide the flexibility for programmatic pursuit of well-defined outcomes and for communications and outreach at a regional and global level.

Table 9: ICIMOD funding (Amount in US Dollars)

	2013	2014	2015	Types of activities supported
Core Funding				Innovation programmes, Knowledge Management and Communication, Monitoring & Evaluation, Strategic Cooperation and Partnership development, Themes
Regional member countries	1,007,583	1,315,009	1,573,979	
Non Regional member countries	3,841,599	5,958,434	5,744,183	
Others	1,540,893	2,214,669	2,194,446	
Total Core Funding	6,390,075 29.9%	9,488,112 35.2%	9,512,608 39.9%	
Programme Funding	1,075,463 5.0%	1,134,438 4.2%	1,119,190 4.7%	Transboundary Landscapes related programmes
Project funding	13,933,432 65.1%-	16,349,059 60.6%	13,183,493 55.4%	Initiatives and projects
Total Funding	21,398,970	26,971,609	23,815,291	

Source: ICIMOD, 2016

Funding gaps were noted in some of the Regional Programmes and general estimates have been produced but the benchmarks for determining needs relative to outcome achievement targets have not been fully determined. The preliminary rough estimates of funding gaps by ICIMOD staff (about $50M USD) need to be grounded in a realistic assessment of incremental costs and benefits, or alternatively downscaling of outputs, as appropriate to achieve to an accepted level of achievement for the outcomes specified in the MTAP-III.

The QQR-5 discussions about funding scenarios indicated that there is likely to be significantly less bilateral donor funding available in the coming years, especially for core functions. The discussions

[37] A Strategy and Results Framework for ICIMOD, Oct 2012, p.23.

also highlighted the increased concerns in development assistance programmes with measurable and verified results and the utilisation of research for addressing specific problems and generating potential solutions.

The implications for funding strategies may include consolidation and rationalisation of some of the activities and greater focus on outcomes and impacts. The core-funded activities noted in Table 6 could be packaged to provide more distinct components for donor funding.[38]

There are also external factors that may affect funding issues and sources, including:

- increased global attention and priority to understanding and adapting to the impacts of climate change in the region;
- pressures to respond to regional and transboundary issues related to hydroelectric development;
- greater recognition of major disaster risks (and risk reduction needs) associated with receding glaciers and flash flooding events;
- infrastructure and socio-economic and environmental impacts of the One Road/One Belt and other road and railway development across the region;
- increased role of the private sector in driving national development processes.

The brief review of funding therefore suggests a potential need for (a) some consolidation of activities and funding envelopes based on well-defined RP outcomes; (b) improved estimates of current activity and funding gaps to fulfill the RP outcomes; (c) a clear strategy for marketing ICIMOD climate change support services consistent with RMC National Action Plans (NAPs); and (d) development of distinct 'knowledge and learning services' business line aimed at supplementing and leveraging other international assistance activities that are aligned with ICIMOD's strategic plan. These are further elaborated in Section 8 below.

A funding gap analysis and revised strategy development should be part of the final year of MTAP-III taking into account the above observations and suggestions.

8. Conclusions and Recommendations

8.1 Conclusions

The Fifth Quinquennial Review (QQR-5) of ICIMOD involved interviews and discussions with more than 143 stakeholders. It confirmed the recognition of ICIMOD as a leading, highly respected research and knowledge institution and innovator of new approaches and technologies in the region. The main findings are presented below in relation to the purpose of the review – "to assess the

[38] For example, a core fund could have separate envelopes dealing with cross-programme topics, such as the regional research agenda, policy dialogue, impact and scale-up assessment, etc. Some of the Australia DFAT funding is "targeted core funding".

performance of ICIMOD based on its approved Strategic and Results Framework in terms of relevance, effectiveness, efficiency, impact, and sustainability of results". Additional conclusions with regard to the Review Questions provided in the Terms of Reference can be found in **Annex 8**. The QQR-5 findings aim to further strengthen the important role the Centre has played over the past three decades.

Relevance and coherence:
The programme initiatives and other activities are consistent with the approved SRF. They address highly relevant issues of importance to the region and to RMCs. Yet many of the RMC staff that were interviewed, while appreciative of the ICIMOD programmes, consider these opportunities as ad hoc study projects that are not fully aligned with national programmes and capacity development needs. The discussions suggested that some coordination or communication gaps exist. The assumption that RP initiatives operate as integrated programmes driven by a common focus on key results rather than as collections of projects can be questioned. The ICIMOD programmes have grown so rapidly it is difficult to find a high level of coherence amidst the complex of RP and thematic activities, despite the strong efforts that have been made to link the Regional Programmes and the comprehensive tracking of results within a strategic framework. The experience to date suggests a need to re-visit the SRF in order to strengthen the strategic focus on key research questions and issues of importance to RMCs.

Effectiveness in achieving results:
The scope of reported results is impressive. Progress on RP implementation has been significant, with generally high rates of achievement in the planned outputs and outcomes. ICIMOD's research and piloting activities are considered high quality and have made a positive contribution at the local, national, regional and global scales. Major effects on baseline conditions that can be attributed to ICIMOD activities, such as improved river basin management operations, greater community resilience to climate stress and extreme weather events, and increased rural incomes are more difficult to gauge. Furthermore, the uptake or 'mainstreaming' of the important contributions (technologies and approaches) into sector practices, government operations and marketplaces is less apparent than may be suggested in the monitoring data, requiring a more long term effort and commitment to policy reform, institutional development and behavioural change. MTAP-IV design should be more precise about the RMC capacity development needs and gaps to which ICIMOD can contribute over the five-year cycle, ideally in coordination with other related international programmes.

Efficiency in programme delivery:
The management systems have been substantially improved with new information systems, skills development, and streamlined procedures established over the course of MTAP-III. The management structure and administrative processes have been generally effective at responding to the rapid growth in programme activities, unforeseen events, and in the shift toward knowledge-based action. There remain issues related to the potential means to improve RMCs collaboration, the scale and design of the RP initiatives, the criteria for selecting implementation partners, and whether the thematic groups – RP teams should be (even) more integrated under individual RPs to provide a central focus on key results.

Contributions to policy and cross-cutting objectives:

The many contributions to policy documents and strategies have been an important characteristic of the current MTAP-III performance. These are mostly opportunistic rather than programmatic - generally not part of longer term policy reform and capacity development processes, yet critical to assisting the application of ICIMOD's research and piloting activities. Scaling-up to the policy level and mainstreaming into government systems are now well acknowledged in the programme work plans, but more guidance on how to support institutional capacity for policy action and mechanisms for sharing policy lessons with senior officials are needed. Gender equality and other cross-cutting objectives have also received significant attention and demonstrated positive change in programme implementation.

Partnerships effectiveness:

The large number of partnerships has helped to extend ICOMOD's reach and to deliver pilot activities with the benefit of experienced local partners. The performance appears to have been mixed, with some partners having strong managerial and technical capacity and others with limited capacity and more output delivery inefficiencies. The strategic partners have provided higher level ability to consolidate lessons and address policy questions, although these have yet to be fully proven in terms of scale-up effects of the innovations being introduced. The central issue is not the number of partners but rather the design and scale of the initiative to generate useful results in a cost-effective manner with the appropriate partnership capacity. A key lesson has been to ensure that the prospective partners are aware of the results and operating practices expected of the partnership, and the need for regular oversight from the partnerships monitoring system.

Impacts on people and environment:

Impacts are longer term effects beyond the MTAP period that contribute to ICIMOD's strategic goals through an activity-output-outcome chain of results. Impacts that may be attributed to ICIMOD activities occur at the local level through the adoption of new technologies/approaches that enhance household livelihoods, resilience and food security. At the institutional level, such impacts include, for example, increased recognition of river basin, watershed and airshed approaches, protocols for transboundary scientific and development cooperation, and adoption or enhancement of climate-resilient village development strategies. The Impact Pathways Analysis that has been introduced by ICIMOD is an appropriate, innovative means of pursuing and measuring impacts in the context of the SRF.

Sustainability of results:

The contributions to policy, organisational capacity, human resource skills and market development for targeted innovations are the primary basis for sustaining the achievements to date. The potential for sustainability varies with the viability and institutionalization of the outputs from each initiative, the business case for public and private investment, and with the prospects for future funding. Withdrawal and sustainability strategies are not often considered in short term activities although efforts to imbed results in partner institutions and at policy levels are being made. Uncertainties about sustainability remain.

Funding strategies:

A programme approach requires greater organisation and flexibility compared to a project-based approach. The maintenance of core funding to support programme level knowledge and learning, capacity and policy development, and regional and global outreach is a major concern. Almost 40% of core operations income comes from RMCs and the previously suggested target of 50% may be feasible if it also leverages other sources for core funding. This issue needs to be collectively discussed with donors, and in context with the emerging models for multi-donor climate financing and output or performance-based funding, and an effective plan prepared for marketing ICIMOD's services.

The MTAP-III has produced a broad set of substantive achievements in a wide array of topics. The QQR-5 discussions and site visits indicated that further progress can be enhanced with increased emphasis on limited RMC-driven RP results that can be sustained and scaled-up in collaboration with other development initiatives, and a refined, well-articulated ICIMOD operational model of research-piloting-knowledge dissemination-policy/capacity development.

8.2 Implications for MTAP-IV Planning

The MTAP-III experiences have provided useful advice for the next policy cycle (2018-2022). These include the following:

(1) Provide more clarity on the primary research questions of national and regional RMC concern;
(2) Improve understanding of RMC needs and gaps where ICIMOD can strategically contribute;
(3) Provide for more rigorous selection, preparation and backstopping of implementing partners;
(4) Develop more precise definition of RP baselines and time-bound outcomes and sub-outcomes;
(5) Elaborate the RP cross-initiative implementation strategies that will lead to larger scale results;
(6) Design research to help reduce scientific uncertainties affecting development issues and to contribute to evidence-based policy dialogue;
(7) Provide customized pathways for scaling-up the research and piloting (see Fig. 2) and replicating the proven innovations;
(8) Address capacity development needs that may affect the uptake and use of technical assistance;
(9) Strengthen the means of verifying the extent of use and adoption of the targeted innovations;
(10) Further advance the integration of gender into RP designs and workplans;
(11) Consider opportunities for strategic alliances with other donors where ICIMOD can add value and leverage results;
(12) Ensure that additional funding requirements to achieve RP outcomes are based on realistic cost benchmarks for the necessary outputs to fill the remaining gaps in the MTAP.

The process for preparation of MTAP-IV is important to the many partners and other stakeholders involved with ICIMOD. This should include initial discussions with RMC clients on the programming priorities and the strategic leadership role for ICIMOD in assisting regional cooperation on specific

key issues over the 2018-2022 period. An emphasis needs to be placed on (i) regional knowledge and contributions relevant to policy dialogue, (ii) strong integration with RMCs, and (iii) progressing from knowledge development to adoption of proven innovations and sustainable capacity.

8.3 Recommendations

Recommendation 1. Enhance the communication channels with RMCs to increase awareness of and feedback on ICIMOD programmes and usability of outputs.

Alternative approaches should be considered for more regular liaison with RMC partners and focal points to review progress and usability of the RP outputs and to further engage country partners in replication and scaling up efforts. The consultation should serve to identify how to best contribute to regional issues and national priorities, take action to overcome programme implementation problems and facilitate uptake and sustainability of specific innovations introduced by ICIMOD programmes. The 'partnership relations management systems' could also be expanded to improve feedback from RMC and other implementation partners.

Recommendation 2. Increase the alignment and engagement with RMC priorities.

The need to improve engagement with RMCs is recognised as part of ICIMOD's SRF 2 key actions: "Further efforts to engage regional member countries (RMCs) on issues of regional importance, with attention to the overlap with country priorities". ICIMOD's uniqueness is based on the mandate by RMCs. This is reflected in the management structure, the ICIMOD funding scheme and in the MTAP planning process. There are good examples of successful cooperation with governments. However, the QQR revealed that the integration with RMC institutions on an operational level can still be improved. This includes longer term cooperation with relevant institutions. It is recommended to analyse and plan together with RMC representatives how ICIMOD's work with the RMCs can be improved on an operational level (not just on a level of strategy, and planning of programs). This might include an analysis of national priorities that can significantly benefit from strategic ICIMOD inputs and how this support could be organized and funded. Think about a deeper integration on the level of staff by considering exchange programs, and strengthening the focal points of ICIMOD at RMC's institutions.

Recommendation 3. Develop and apply guidelines for scaling-up proven innovations and for mainstreaming them into government systems and investment opportunities.

The innovative approaches, technologies and practices that ICIMOD and partners have demonstrated need further targeted support for integration into government planning and budgeting systems, and public and private sector investment processes. ICIMOD's local pilot projects need to be reviewed for their scale-up implications. Guidelines for expansion of successful innovations at an institutional, policy, sector and/or market level as part of the Impact Pathways Analysis could help to more directly push uptake and impact of the programme outputs beyond the demonstration and piloting stages. This requires reliable performance data, documented business cases, capacity needs assessments and effective scaling-up partnerships and agents.

Recommendation 4. Identify the major research questions in HKH region which RMCs consider to be priorities for ICIMOD and develop strategic research partnerships around these priorities.

Building on current ICIMOD activities, a research agenda for priority regional issues should be formulated with RMC representatives and ICIMOD's strategic partners, in preparation for MTAP-IV. The high level research questions should be aimed at improving the scientific and technical evidence base for contributions that ICIMOD can make to selected policy issues and dialogues in the region. A broad participatory process should be used, with support of RMC Board members, to develop consensus on these questions and the strategies appropriate to implement the research. This process should increase the profile and relevance of ICIMOD's research and develop support for intergovernmental collaboration on the key knowledge gaps.

Recommendation 5. Establish strategic alliances with multilateral organisations for leveraging of knowledge and capacity development and integration of innovations into ongoing development processes.

ICIMOD's research and knowledge development could leverage significant benefits from better links with the UN agencies and other multilateral organisations involved in disaster risk management and climate change in the HKH region. ICIMOD's expertise could provide selective technical backstopping of such large scale programmes and in turn benefit from opportunities within multilateral funding and investment mechanisms for follow-up replication of the innovations piloted within ICIMOD and for related capacity development. Thematic advisory groups (TAGs) have been established for specific issues (such as GLOF) and these could provide a key means of extending ICIMOD's research and innovation knowledge to national and regional scales.

Recommendation 6. Strengthen the annual review of implementation progress with more rigorous performance data and external input.

The annual review of regional programme implementation with partners, beneficiaries and donors could benefit from systematic assessment of the progress toward outcomes, impact pathway validity, constraints being encountered and any adjustments that may be needed. The narratives on project experiences and achievements are currently considered limited and promotional. Implications of the completed pilot activities for the rest of ICIMOD's programmes could be usefully reviewed. Input from external advisors would also enhance quality assurance. An internal process for verification and validation of key results could also be considered in order to conform with the rigor associated with new climate financing mechanisms. The progress on regional programmes should also be regularly examined in terms of whether and how it is contributing to the technical evidence base that facilitates policy dialogue on key issues of concern to ICIMOD.

Recommendation 7. Increase regional monitoring of the status and trends in mountain conditions and further promote access to ICIMOD's information portals.

The monitoring of environmental and social trends and conditions is an important aspect of ICIMOD's function. The high quality Climate and Water Atlas and the historical glacier exhibits for example, have served as useful means of raising awareness of changing conditions in the HKH region. But even though impressive web-based information platforms have been developed, the systematic monitoring of regional conditions and trends is not a standard practice except perhaps in the

Atmosphere Initiative. For example, the overall status of key ecosystem values within the transboundary landscapes and their rates of change are not directly addressed at a scale that can be understood at the policy level. A focus on a consistent set of high level Regional Indicators of cryosphere, hydrological, atmospheric, biodiversity, poverty and other conditions would help to increase use of ICIMOD's information portals and inform multiple audiences of the critical HKH mountain concerns in the face of a changing world.

Recommendation 8. Facilitate private and public sector investment planning and the financing readiness of appropriate technologies that emerge from the Regional Programmes.

The existing activities offer specific opportunities to begin the process of engaging the private sector and the national development budgets in investment opportunities linked to ICIMOD's programmes. The piloting of promising technologies such as solar pumps, automated flood warning systems, organic pesticides, rainwater harvesting systems and brick kiln technologies for example, provide an initial basis for developing the business case and financial analysis necessary for follow-up investment of private and public funds. The important ICIMOD research on water resources could also be organised to provide targeted technical and environmental preparatory advice for anticipated hydroelectric and other water resource development investments being promoted by RMCs. The potential for both private and public sector investment in ICIMOD research and innovation results need to be directly considered.

Recommendation 9. Prepare a business plan for core funding aimed at sustaining 40% of the annual budgets for programme-wide activities and operating costs.

Consultation with existing and potential donors and clients is needed to address the core funding issue, which is a major concern for ICIMOD's operations. The plan should outline the services and results generated by core funding activities, present the case for investing in core services and provide the basis for subsequent marketing through a combination of domestic financing, international donors, innovative financing mechanisms and services contracting. This could include assessing potential for a performance-based basket funding model for core funding that would encourage donors to align strategies and take up longer term components and key results areas within a core operations fund. It may also assess opportunities for fee for service contracts as a "knowledge and learning service provider" to other international programmes specifically aligned with ICIMOD's Regional Programmes, and consider a particular focus on climate financing sources for research, knowledge development and regional forums on climate change impacts and responses.

Recommendation 10. Revise the Strategic Results Framework and the operational structure to increase the emphasis on key results of regional significance and coherent implementation across and within the Regional Programmes.

The QQR-5 discussions indicated a need to adjust future programming based on (i) well-defined baselines and end results within the planning cycle, (ii) opportunities for ICIMOD to lead a coordinated research agenda on selected regional issues, (iii) further development and elaboration of the RP implementation strategies in line with RMC needs and policy dialogue, and (iv) wherever possible, simplifying the programme delivery and reporting systems. New topics for ICIMOD

programming should clearly align with the SRF. This effort should also draw upon the specific suggestions presented in Section 8.2 above.

In conjunction with MTAP-IV planning and the discussions of new initiatives, the SRF needs to be reviewed and appropriately updated to improve overall programme coherence and complementarity, fine-tune the RP implementation strategies, provide a focus on research-piloting-upscaling linkages, and simplify the coordination between thematic areas and RPs. Linking research to pilot activities as well as upscaling strategies and policy impacts should be considered in the project designs. The rapid growth of ICIMOD has presented both opportunities and risks that warrant further discussion. In addition, the ICIMOD division into thematic groups and RP teams should be discussed (the four types of sector specialists within the thematic groups may be more efficiently situated directly within the RP structure). Key results from RPs should be given a high profile and role in all thematic and RP staff functions. Updating and, wherever possible, simplifying the complex SRF can assist in guiding MTAP planning and improve overall direction for the evolving programme design and delivery.

ANNEX 1: QQR-5 Terms of Reference

TERMS OF REFERENCE
FIFTH QUINQUENNIAL REVIEW (QQR) ICIMOD
October 2015

1. Background

The International Centre for Integrated Mountain Development (ICIMOD) is a regional intergovernmental learning and knowledge sharing centre serving the eight regional member countries of the Hindu Kush Himalayan (HKH) region – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. Mountains are important global ecosystems facing especially rapid socioeconomic and environmental changes, particularly the impacts of climate change. Our aim is to influence policy and practices to meet environmental and livelihood challenges emerging in the HKH region. To do this we bring together researchers, practitioners and policy makers from the region and around the globe to generate and share knowledge, support evidence-based decision making, and encourage regional collaboration. ICIMOD delivers impact through its six regional programmes of Adaptation to Change, Transboundary Landscapes, River Basins, Cryosphere and Atmosphere, Mountain Environment Regional Information System, and Himalayan University Consortium. These regional programmes are supported by the four thematic areas of Livelihoods, Ecosystem Services, Water and Air, and Geospatial Solutions and underpinned by Knowledge Management and Communication. ICIMOD seeks to improve the lives and livelihoods of mountain women and men, now and for the future.

2. Context of the Review

After more than 30 years of growth in many dimensions, the Fifth QQR, covering the period of 2011 – 2015, is scheduled for the first half of the year 2016. It shall provide a timely opportunity to review past achievements and critical issues, the current work programme and to identify clear options for the future. The past QQRs covered the periods from 1985 to 1990, 1990 to 1994/95, 1995 to 2001, and 2001 to 2006, respectively. However, a mid-term review (MTR) was commissioned in 2010 for midterm course correction that covered the period of 2007 to 2010. The previous QQRs played important roles in assessing ICIMOD's contribution, functioning, and future directions.

The fifth QQR will also play an important role in defining and recommending directions for ICIMOD's strategic orientation after 2017.

The MTR of 2010 confirmed that ICIMOD had taken into consideration the recommendations made in the Quinquennial External Review 2006.

In consultation with regional member countries (RMCs) and other stakeholders, ICIMOD developed its Strategic Framework and Medium Term Action Plan III (MTAP III 2013-2017) that was approved by the board. The current strategic framework has identified six regional programmes, namely Adaptation to Change, Transboundary Landscapes, River Basins, Cryosphere and Atmosphere, Mountain Environment Regional Information System, and

Himalayan University Consortium. The thematic focuses are Livelihoods, Water and Air, Ecosystem Services, and Geospatial Solutions, with Gender and Governance as cross cutting issues. Knowledge Management and Communication and Monitoring and Evaluation are key institutional functions for improving organizational performance and visibility. The Framework placed emphasis ICIMOD's niche as a regional intergovernmental organization, as a bridge between science, policy, and practice; strengthening its science base; and more emphasis on planning and monitoring impact.

During the implementation of MTAP III, a number of independent reviews were carried out by Germany, Sweden, Norway, Australia, and the UK, and more are planned in 2016. These reviews have influenced the implementation process and will also provide a good basis for the QQR assessment.

3. Objectives of the Review

The purpose of the review is both to provide accountability to the Board, ICIMOD Support Group (ISG), and other stakeholders and to strengthen ICIMOD's functioning based on the conclusions and recommendations of the review. Thus the review will:

1) Assess the performance of ICIMOD based on its approved Strategic and Results Framework in terms of relevance, effectiveness, efficiency, impact, and sustainability of results.

2) Provide recommendations of how ICIMOD can improve its strategic results framework and implementation plan (MTAP) in the future.

The review will cover ICIMOD's six strategic goals; priority actions and projected outcomes and outputs; means of achieving these through RMC engagement and cooperation; partnerships, knowledge management and communication; and monitoring and evaluation.

4. Questions for the Review

4.1. Strategic Goals, Regional Programme Goals, Thematic Areas and Priority Actions

4.1.1 Comprehensively **assess and review** the performance of ICIMOD in achieving its **six strategic goals** and **regional programme goals** as defined in its Strategic Result Framework (SRF) and MTAP III.

4.1.2 Has ICIMOD addressed appropriately the **priority actions** for the region as outlined in the SRF?

- increased emphasis on outcome, impact, and learning
- further efforts to engage regional member countries (RMCs) on issues of regional importance, with attention to the overlap with country priorities
- ensuring high-quality solution-oriented research and knowledge products including position papers on emerging issues and new topics for the region
- significant improvement of communication and knowledge exchange within and outside the region
- collaboration with strategic partners in the RMCs to deliver programmes

- attention is given to planning, monitoring, and generating impact across programmes

4.1.3 What are all the **significant achievements** and factors that contributed to achieving the six strategic and regional programme goals?

4.1.4 Critically review the **key challenges and obstacles** that impede ICIMOD in achieving the strategic and regional programme goals.

4.1.5. Have the **inclusive** development priorities including **gender** been strategized and integrated sufficiently across ICIMOD's work?

4.1.6. To what extent has ICIMOD been able to implement the recommendations made by the MTR 2010?

4.1.7 Has ICIMOD's work contributed to strategic impacts (poverty reduction, reduced physical and social vulnerabilities, and improved ecosystem services)?

4.2. Complementarities, synergies, and added value

4.2.1 Assess the **complementarities and synergies** with respect to different donor-funded programmes currently implemented by ICIMOD as part of the strategic results framework

4.2.2 Assess the **comparative advantage** of ICIMOD compared to other organizations working in the HKH region?

4.2.3 Where has ICIMOD added the most value in terms of regional programmatic approach, themes, and partnership building?

4.3. Monitoring, Evaluation and Governance

4.3.1 Is ICIMOD effectively measuring its results and outcomes? Has it developed an effective **M&E system** which can serve the need for accountability and learning?

4.3.2 Have internal systems and **governance** mechanisms been supportive to deliver results (finance, KMC, partnership). This issue should be discussed in light of increased volumes and activities in the period.

4.5. Partnerships

4.5.1 Critically assess the multi-stakeholder **partnership** of ICIMOD with RMC governments, CSOs, universities, research institutions, and the private sector and their contribution in realizing the ICIMOD SRF.

4.5.2 Has ICIMOD been able to adequately **strengthen** and engage strategically with these key stakeholders?

4.5.3 Has ICIMOD's work **contributed** to **regional cooperation between RMCs** and other actors? To what extent has this been possible? (Illustrated by means of some outstanding paradigms.)

4.5.4. Has ICIMOD been **effective** in terms of **policy influence** and **capacity building**, particularly with regard to RMCs? How can it be improved, if necessary?

4.6 Funding

4.6.1 Assess the funding scenarios for ICIMOD and make recommendations for future support and fundraising strategies

5. Methodology

The evaluators will mainly use more than ten external evaluations and review reports of the last three years. In addition, the following types of data and information will be used for the QQR.

1. ICIMOD available progress reports and M&E data
2. Interviews of ICIMOD key staff and partners
3. Selected field-based observations
4. Observations from relevant published materials and websites
5. If possible, comparative analysis of similar entities which are intergovernmental, regional, knowledge centres

6. Proposed Process and Timeline

The review will rely heavily on existing reviews, then fill in gaps with additional work including interviews and additional reviews.

The ICIMOD support group has formed a special committee for quality assurance and approval of all the final processes and product of the QQR. For the Fifth QQR, it has been decided to engage independent evaluation firm through competitive bidding process. The following process will be followed

S#	Process	Date
1	Draft ToR prepared and submitted	20 September 2015
2	Review and approval of the TOR by the ISG Committee	20 October 2015
3	Expression of Interest (EoI) Announced	20 November 2015
4	ISG and Board informed on the process	28 November 2015
5	EOIs received from various firms	31 January 2016
6	Assessments done by the QQR committee and four selected firms will be asked to submit a full proposal in a given format	10 February 2016
7	Full proposals received	31 March 2016
8	QQR committee proposes firm to be selected	8 April 2016
9	ISG selects one firm for the QQR	22 April 2016
10	All other evaluation firms are notified of the decision	29 April 2016
11	Inception meeting with QQR Committee/ ICIMOD/selected	Early May 2016

	firm: Discussion on the TOR, expectations, quality, and timing (through video/ phone conference)	
12	Contracting process with the selected firm completed	End May 2016
13	Inception report submitted	15 June 2016
14	Discussion of the inception report and approval/disapproval by QQR Committee and ICIMOD	21 June 2016
15	Presentation of QQR Inception Report at the ISG and PAC joint meeting	22 June 2016
16	Commence the QQR evaluation: Interviews and field visits	June- August2016
17	Submit draft QQR report	1st week September 2016
18	Feedback incorporated and final draft report shared with ICIMOD and ISG	30 September 2016
19	Final draft QQR report submitted to ISG, BOG, and ICIMOD	15 October 2016
20	ISG and BOG approve the report and recommendations	November 2016

7. Implementation Schedule

The QQR implementation period will be within 40 days, which are described below as per stages of the review.

7.1. Inception Period – 8 days

- Review of all documents, including existing review reports
- Interaction and discussion with key ICIMOD staff
- Prepare inception report
- Submit inception report to ICIMOD and QQR committee
- Approval of inception report and way forward by QQR committee

7.2. Field Interaction – 16 days

- Meetings with QQR committee and ICIMOD staff
- Meetings with key ICIMOD partners
- Meeting with selected regional ICIMOD Board of Governors (BOG) members
- Meeting with selected ICIMOD Programme Advisory Committee (PAC) of the BOG and ICIMOD Support Group (ISG) members
- Visiting field implementation sites in three RMCs. ICIMOD will provide guidance to the selected firm to identify these sites/countries (Nepal will be one of them for budgetary reasons); the QQR committee will approve the choice.

7.3. Compilation and preparing reports – 6 days

- Prepare initial draft and share for feedback
- Prepare presentation to ISG and PAC joint session (Team Leader will make a presentation)

7.4. Finalization of the Report – 10 days

- Incorporate feedback and finalize the report
- Submit the report to ICIMOD and QQR committee

- Presentation of the findings to the Board and ISG

8. Reporting

The QQR Team will report directly to the ISG committee for QQR on matters related to findings of the review. On operational matters, the QQR Team will report to ICIMOD and the focal point would be Mr Farid Ahmad, Head of Strategic Planning, Monitoring and Evaluation, ICIMOD.

The following reports will be submitted during the course of the review:

1. Inception Report
2. Detailed Plan and Budget
3. First Draft QQR Report
4. Final Draft QQR Report

ANNEX 2: QQR-5 Itinerary

ITINERARY FOR QQR-5 MISSION, July 2016

JULY	DAY	NAME	TIME	LOCATION
10	Sun	Alan	pm	Arrive Beijing
11	Mon	Alan	9.00 - 12.00	Beijing - Chinese Academy of Sciences mtg
		Marc		Travel to KTM
		Stefan		Travel to KTM
12	Tue	Alan		Arrive BKK, travel to KTM
		Marc		Arrive KTM
		Stefan		Arrive KTM
13	Wed	Team	9.00-5.00	Meetings with ICIMOD
14	Thu	Team	9.00-5.01	Meetings with ICIMOD
15	Fri	Team	9.00-5.02	Meetings with ICIMOD
16	Sat	Alan		Travel Kunming
17	Sun	Marc		Travel to India / Guwahati
		Stefan		Travel to Yangon / Myanmar
18	Mon	Alan	9.00 am	Yunan Institute of Social Sciences mtg
		Alan	11.00 am	Asian Intl Rivers Center, Yunan University, Kunming
		Alan	3.00 pm	Kunming Institute of Botany mtg
		Marc	6:00 AM	Travel to North Lakhimpur
		Marc	2 - 6.00 pm	Field visit to HiCap site CBFEWS
		Stefan		Desk work in Yangon
19	Tue	Alan	7.00 am	Travel to Dali, China
		Marc	8 am - 6pm	adaptive capacity research site in Borsola village
		Stefan	morning	Travel to Hsho, Myanmar
		Stefan	afternoon	Meeting with MIID & field visit in Shan State
20	Wed	Alan	9.00 am	Er Hai Catchment Conservation Bureau, Dali Autonmous Prefecture
			pm	wetland site visit; Yong An village
		Marc	8:00 - 21:00	Flight to Guwahti, Meeting with Dr. Rajiv Dutta Chowdhury, ASDMA, Amirgaon, Guwahati, Flight to Delhi
		Stefan		Meeting with partners and stakeholders in the Inle lake and surroundings (Ministry of Toursim, Forest Dep, GIZ, local craftman)
21	Thu	Alan		Travel to Chengdu
		Marc	8:00 - 19:00	Meeting with science partners from IEG and IIT (morning). Meeting with donors from SDC and EU (afternoon)
		Stefan		Travel from Nyaung Shwe to Nay Pie Taw
22	Fri	Alan	9.00-12.00	Chengdu Institiute of Mounatin Hazards and Environment, CAS; 7 attending
			5.00 pm	Travel to KTM
		Marc		Meeting with ICIMOD Board Member Mr. Ajay Narayan Jha, Secretary Ministry of Environment, Forest and Climate Change, Govt. Of India
		Stefan		Meeting with ICIMOD partners and stakeholders in Nay Pie Taw (various staff members MONREC, Department of Meteorology)
23	Sat	Alan, Marc, Dilli	9.00 am	field visit to brick kiln, Shwet Bhairab, Nala, Kathmandu valley
		Stefan		Travel from Nay Pie Taw to Yangon
24	Sun	Alan, Marc, Dilli	9.00-5.00	field visit CEAPRED; HICAP; 1) Bhotirumti village, VDC Mahadev Sthan#9, Kavre; 2) Naubise village; 20+ people attending
		Stefan		work in hotel
25	Mon	Alan, Dilli	9.00 am	IFAD mtg
		Marc, Stefan		strike - work in hotel
26	Tue	Alan, Dilli	9.00 am	Glenn White, Ambassador, Australai
		Alan, Dilli	10.30 am	Naresh, Sharma, Min of Population & Environment
		Alan, Dilli	11.30 am	Ram Hari Partha, Climate Change Section, Min of Population & Environment
		Alan, Dilli	pm	Gail Marzetti and Anika Olsen, DFID Nepal
		Marc, Stefan	full day	travel to Khurkot, Bhimeshwor VDC, meeting with HELVETAS & local communities
27	Wed	Alan, Dilli	10.30 am	DHM, Top Khatri
		Alan, Dilli	11,15	DHM, Rishi Ram Sharma
		Alan, Dilli	12.30 pm	DHM, Ram Ghopal Kharbhuja, DDG
		Alan, Dilli	pm	Practical Action, Kathmandu
		Marc, Stefan	full day	Kavre district - meeting with Nepal Water Conservation Foundation (NWCF) and local communities
28	Thu	Alan, Dilli, Marc, Sefan	am	Norwegian Embassy; Jan Eriksen (Norway) Dirk Steffes-enn (Germany)
		Alan, Dilli, Marc, Sefan	am	Yub Raj Khatiwa, Nepal National Planning Commission
		Alan, Dilli, Marc, Sefan	pm	Resham Bahadur Dangi, Min Forests & Soil Conservation
29	Fri	Alan, Dilli, Marc, Sefan	am	Vijaya Singh, UNDP Nepal
		Alan, Marc, Sefan Dili	pm	ICIMOD meetings
30	Sat	Alan, Marc, Sefan		Depart Nepal

ANNEX 3: List of Contacts

Name	Title	Affiliation	Date and place
China			
Dr Dong Qi	Professor	Bureau of International Cooperation Chinese Academy of Sciences	Bejing, China, July 10, 2016
Dr Zhenyu Wang	Director	Bureau of International Cooperation Chinese Academy of Sciences	Bejing, China, July 10, 2016
Dr Linxiu Zhang	Professor and Deputy Director	Center for Chinese Agricultural Policy, CAS	Bejing, China, July 10, 2016
Dr Zhang Yi-li	Professor of Physical Geography	Institute of Geographical Sciences and Natural Resources	Bejing, China, July 10, 2016
Dr Yanfen Wang	Vice President	University of Chinese Academy of Sciences	Bejing, China, July 10, 2016
Dr Peili Shi	Professor	Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR, CAS); Lhasa Ecological Research Station	Bejing, China, July 10, 2016
Prof Zhao Qun	Professor	Yunnan Academy of Social Sciences (YASS)	Yunnan, China, July 18-20
Prof Xuan Yi	Professor	Yunnan Academy of Social Sciences (YASS)	Yunnan, China, July 18-20
Dr He Daming	Director	Asia International River Center (AIRC) / Yunnan University	Yunnan, China, July 18-20
Dr Dean Hu Jinming	Associate	Asia International River Center (AIRC) / Yunnan University	Yunnan, China, July 18-20
Dr Feng Yan	Professor	Asia International River Center (AIRC) / Yunnan University	Yunnan, China, July 18-20
Dr Wang Wenling	Associate Professor	Asia International River Center (AIRC) / Yunnan University	Yunnan, China, July 18-20
Dr Luo Xian	Associate Professor	Asia International River Center (AIRC) / Yunnan University	Yunnan, China, July 18-20
Prof Yang Yongping	Professor	Kunming Institute of Botany(KIB) / Chinese Academy of Sciences	Yunnan, China, July 18-20
Dr Yang Shuo	Project Manager	Yunnan Institute of Environmental Science	Yunnan, China, July 18-20
Mr Wei Zhihong	Director	Dali Prefectural Erhai Lake Research Institute	Yunnan, China, July 18-20
Mr Lu Xingju	Chief Engineer	Dali Prefectural Erhai Lake Research Institute	Yunnan, China, July 18-20
Mr Xiong Zhonghua	Deputy Director	Dali Prefectural Erhai Lake Catchment Conservation Bureau	Yunnan, China, July 18-20
Mr Li Ningbo	Director Ecosystem and Nature Conservation Office	Dali Prefectural Environment Protection Bureau	Yunnan, China, July 18-20
Dr Yang Shuo	Project Manager	Yunnan Institute of Environmental Science	Yunnan, China, July 18-20
Feng Shengbi		Yunnan Institute of Environmental Science	Yunnan, China, July 18-20
Feng Shengbi		Yunnan Institute of Environmental Science	Yunnan, China, July 18-20

Lv Xingju	Chief Engineer	Dali Prefectural Erhai Lake Research Institute	Yunnan, China, July 18-20
Li Hang	Engineer	Dali Prefectural Erhai Lake Research Institute	Yunnan, China, July 18-20
Yang Qifeng		Eryuan County Wetland Conservation Bureau	Yunnan, China, July 18-20
Liu Jianwen		Eryuan County Wetland Conservation Bureau	Yunnan, China, July 18-20
Duan Ruilin	Villagers' representatives	Luoshi River Wetland and Dong Hu Yongan River wetland	Yunnan, China, July 18-20
He Congwen	Villagers' representatives	Luoshi River Wetland and Dong Hu Yongan River wetland	Yunnan, China, July 18-20
Duan Zhiquan	Villagers' representatives	Luoshi River Wetland and Dong Hu Yongan River wetland	Yunnan, China, July 18-20
Li Ming	Villagers' representatives	Luoshi River Wetland and Dong Hu Yongan River wetland	Yunnan, China, July 18-20
Li Wenchao	Villagers' representatives	Luoshi River Wetland and Dong Hu Yongan River wetland	Yunnan, China, July 18-20
Prof Zhongshu Luo	Vice President	Sichuan University	Chengdu, China, July 22
Prof Wu Yan-hong	Director, Science and Technology Div.	Institute of Natural Hazards and Environment (INHE), Chinese Academy of Sciences	Chengdu, China, July 22
Prof Luo Peng	Professor	Chengdu Institute of Biology	Chengdu, China, July 22
Dr Wang Zhuo	Professor	Office for Social Sciences, Sichuan University	Chengdu, China, July 22
Prof Chen Ningsheng	Director	INHE, CAS	Chengdu, China, July 22
Prof Xu Jun	Professor	Sichuan University	Chengdu, China, July 22
Ms Liu Qin	Associate, Secretariat of the CN-ICIMOD	Science and Technology Division, INHE, CAS	Chengdu, China, July 22
Myanmar			
David Abrahamson	Project Official	Myanmar Institute for Integrated Development (MIID)	Heho,Myanmar, July 19
Soe Naing Htay	Community Mobilization and WASH Officer	Myanmar Institute for Integrated Development (MIID)	Heho,Myanmar, July 19
Nyi Nyi Lwin	Field Coordinator and Agronomist	Myanmar Institute for Integrated Development (MIID)	Heho,Myanmar, July 19
Mr Phway	Enpak village leader	Myanmar Institute for Integrated Development (MIID)	Heho,Myanmar, July 19
Mr Khin Maung	Pantin village leader	Myanmar Institute for Integrated Development (MIID)	Heho,Myanmar, July 19
Mr Mg Yin	Zeyar village leader + community member	Myanmar Institute for Integrated Development (MIID)	Heho,Myanmar, July 19
U Thein Htay	Director of Shan State Forest Department	Forest State Dep Shan State, Ministry of Natural Resources and Environmental Conservation (MoNREC)	Taungyi,Myanmar, July 20

U Htay Maung	Assistant Director	Taunggyi district Forest office	Taungyi,Myanmar, July 20
U Zaw Win		Forest Resource Environment Development and Conservation Association (FREDA)	Taungyi,Myanmar, July 20
U Htin Aung Naing	Director	Ministry of Hotel and Tourism (MoHT) in Shan State	Taungyi,Myanmar, July 20
Mr Michael Haynes	Senior Tourism Advisor	Gesellschaft für Internationale Zusammenarbeit (GIZ)	Nyaungshwe, Myanmar, July 20
U Khin Maung Toe	Assistant Director	Rural Development Department, Nyaung Shwe Township + staff member	Nyaungshwe, Myanmar, July 20
Mr Kyaw Zaeya		Sekhong Village, Inle Lake artist, trainer of craft work in pilot villages	Inle, Myanmar, July 20
Mr Tual Cin Khai	Assistant Director	Ministry of Natural Resources and Environmental Conservation (MoNREC), Watershed Management Division	Nay Pie Taw, Myanmar, July 21
Mr Boni	Director Watershed Management Division	Ministry of Natural Resources and Environmental Conservation (MoNREC), Forest Dept.	Nay Pie Taw, Myanmar, July 22
Dr Toe Aung	Assistant Director	MoNREC, Forest Dept. - Mangrove Conservation Unit – Watershed Management Division	Nay Pie Taw, Myanmar, July 22
Dr Nyi Nyi Kyaw	Director General	MoNREC Forest Dept.	Nay Pie Taw, Myanmar, July 22
Mr Boni	Director	MoNREC Forest Dept., Watershed Management Division;	Nay Pie Taw, Myanmar, July 22
Khin Maung Oo	Director	MoNREC Forest Dept., Watershed Management Division, Planning and Statistics Div.	Nay Pie Taw, Myanmar, July 22
Tint Swe	Director	MoNREC Forest Dept., Training, R&D Div.	Nay Pie Taw, Myanmar, July 22
Win Naing Thaw	Director	MoNREC Forest Dept., Nature and Wildlife Conservation Div.	Nay Pie Taw, Myanmar, July 22
Dr Toe Aung	Assistant Director	MoNREC Forest Dept., Mangrove Conservation Unit	Nay Pie Taw, Myanmar, July 22
Dr Naing Zaw Htun	Assistant Director	NWCD, MoNREC Forest Department	Nay Pie Taw, Myanmar, July 22
Mrs Htay Htay Than	Director Hydrological Div.	Ministry of Transport and Communications, Department of Meteorology and Hydrology	Nay Pie Taw, Myanmar, July 22
Skype/Telephone Interviews			
Mr Dave Penton	Research Team Leader	Commonwealth Scientific and Industrial Research Organisation, Canberra, Australia	Skype, August 4
Mr Geoff Podger		CSIRO	Skype, August 4
Mr Peter Wallbrink		CSIRO	Skype, August 4
Mr Bernard Cantin	Manager	Collaborative Adaptation Research Initiative in Africa and Asia, IDRC, Ottawa	Skype, August 11
Kerry Leigh	Manager	Sustainable Development Investment Portfolio for South Asia, Department of Foreign Affairs and Trade, Canberra, Government of Australia	Telephone, August 16
Rachel Lambert	Acting Deputy Chief Science Advisor and Deputy Director	Research and Energy Division, DFID UK, London England	Telephone, August 18
Duncan Barker	Livelihoods	Agriculture Research Team, Department for	Email, August 18

	Adviser	International Development, East Kilbride, UK	
Ryan Thew	First Secretary (Development)	Australian High Commission, Delhi, India	Telephone, August 18
India			
Village chief, chief of downstream village, village community	Local beneficiaries of HiCap activity	Dhemaji district - HiCap site CB-FEWS	Personal communication, 18.July
Dr. Partha J Das	Head, 'Water, Climate & Hazard Division'	Aaranyak(A Scientific and Industrial Research Organisation of India)	Personal communication, 18.July
Mr. Lohit Gogoi	DDMA	Dhemaji district	Personal communication, 18.July
Group of women which are trained in flood preparedness	Local beneficiaries of HiCap activity	Borsola - HiCap site – flood preparedness	Personal communication, 19.July
Dr. Dattatreyaa H	Chief Executive	Institute of Integrated Resource Management (IIRM)	Personal communication, 19.July
Dr. Rajiv Dutta Chowdhury,	ASDMA	Amingaon, Guwahti	Personal communication, 20.July
Mr. Rajendra Agarwalla	Senior adviser in HiCap	Ex-Principal Chief Conservator of Forests of Assam	Personal communication, 20.July
Prof. Nilabja Ghosh	Associate Professor	Institute of Economic Growth, University of Delhi Enclave	Personal communication, 21.July
Prof. Gosain	Professor of Civil Engineering	Indian Institute of Technology Delhi	Personal communication, 21.July
Kuriger Janine	Director of Cooperation and Counsellor	Swiss Agency for Development and Cooperation SDC	Personal communication, 21.July
Pattabiraman Subramanian	Senior Program Manager	Delegation of the European Union to India, Development Cooperation	Personal communication, 21.July
Ms. Amita Prasad	Additional Secretary	Ministry of Environment, Forest and Climate Change, Govt. of India	Personal communication, 22.July
Dr. T Chadini	Head	Mountain Division, Ministry of Environment, Forest and Climate Change, Govt. Of India	Personal communication, 22.July
Nepal			
Raj Kumar Lakhemaru	Owner	Shwet Bhairab Brick Company, Shwet Bhairab Nala, Kathmandu Valley	Personal communication, July 24
Villagers “climate resilient village”	Beneficiary	Village close to Kathmandu	Personal communication, July 24
Bikram Rana	Team Leader	HELVETAS	Personal communication,

			July 26
Villagers and DDC	Beneficiary	Water Use Master Plan, Bhimeshwar	Personal communication, July 26
Binod Prasad Sharma	Senior Researcher	Nepal Water Conservation Foundation	Personal communication, July 27
Covinda Sharma Pokkharei	Vice Chair	Nepal Water Conservation Foundation	Personal communication, July 27
Villagers Dapacha, Kavre	Beneficiary	Spring and pond rehabilitation	Personal communication, July 27
Keshab Joshi	Programme Director	Center for Environmental and Agricultural Policy Research, Extension and Development	July 23 field visit
Roshan Savedi	Project Coordinator	Center for Environmental and Agricultural Policy Research	July 23 field visit
Lakshmi Moola	Country Programme Manager	Asia Pacific Division, IFAD, Rome	Kathmandu, Nepal, July 26
Bashu Aryal	Country Programme Officer	IFAD Nepal	Kathmandu, Nepal, July 26
Glenn White	Ambassador	Government of Australia	Kathmandu, Nepal, July 26
Naresh Sharma	Chief	Climate Finance Management Section, Ministry of Population and Environment	Kathmandu, Nepal, July 26
Ram Hari Pantha	Under Secretary	Climate Change Section, Ministry of Population and Environment	Kathmandu, Nepal, July 26
Gail Marzetti	Head	DFID Nepal	Kathmandu, Nepal, July 26
Anika Olsen	Climate Change Officer	DFID Nepal	Kathmandu, Nepal, July 26
Rishi Ram Sharma	Director General	Department of Hydrology and Meteorology, Government of Nepal	Kathmandu, Nepal, July 27
Ram Ghopla Kharbhuja	Deputy Director General	Department of Hydrology and Meteorology, Government of Nepal	Kathmandu, Nepal, July 27
Khatri Top	Project Manager	CGORRP, Department of Hydrology and Meteorology	Kathmandu, Nepal, July 27
Achyut Luitel	Regional Director	Practical Action	Kathmandu, Nepal, July 27
Gehendra Gurang	Head	ARR/CC, Practical Action	Kathmandu, Nepal, July 27
Krity Shrestha	Climate Change Officer	Practical Action	Kathmandu, Nepal, July 27
Jan Eriksen	Energy Counsellor	Royal Norwegian Embassy	Kathmandu, Nepal, July 28
Dirk Steffes-en	First Secretary (Development)	Embassy of the Federal Republic of Germany	Kathmandu, Nepal, July 28
Yub Raj Khatirwa	Vice Chair	National Planning Commission, Government of Nepal	Kathmandu, Nepal, July 28
Resham Bahadur Dangi	Joint Secretary, Chief	Foreign Aid Coordination Division, Ministry of Forests and Soil Conservation, Government of	Kathmandu, Nepal, July 28

		Nepal	
Vijaya Singh	Deputy Director	UNDP Nepal	Kathmandu, Nepal, July 29
Bhotirumti village		Villagers at Bhotirumti Village, Kavre	Nepal, July 23
Mahadensthan 7 village		Villagers at Mahadensthan 7, Naubise	Nepal, July 23
ICIMOD staff			
David Morten	Executive Director	ICIMOD	Kathmandu, Nepal
Eklabya Sharma	Director Programme Operations	ICIMOD	Kathmandu, Nepal
Farid Ahmad	Head, Strategic Planning, M&E	ICIMOD	Kathmandu, Nepal
Rajan Kotru	Transboundary Programme Manager	ICIMOD	Kathmandu, Nepal July 29
Galam Rasul	Livelihoods team leader	ICIMOD	Kathmandu, Nepal July 29
Maxime Litt	Glacio-Hydrologist	ICIMOD	Kathmandu, Nepal July 15
Samjwal Ratnn Bajracharga	Remote Sensing Specialist	ICIMOD	Kathmandu, Nepal July 15
Sharad P. Joshi	Glacier Analyst	ICIMOD	Kathmandu, Nepal July 15
Rajendra Shrestha	Cryosphere Specialist	ICIMOD	Kathmandu, Nepal July 15
Deo Raj Gurung	Remote Sensing Specialist	ICIMOD	Kathmandu, Nepal July 15
Deependra Tandukar	KM, Multimedia and Web Officer	ICIMOD	Kathmandu, Nepal July 15
Bhupesh Adrikary	Air Quality Specialist	ICIMOD	Kathmandu, Nepal July 15
Bidya Banmati Pradhan	Atmospheric Environment Specialist	ICIMOD	Kathmandu, Nepal July 15
Nirmala Baduwal	Atmospheric Environment Specialist	ICIMOD	Kathmandu, Nepal July 15
Ayushma Basngat	Programme Officer, A1	ICIMOD	Kathmandu, Nepal July 15
Sudan Bikash Maharjan	Remote Sensing Analyst - Cryosphere	ICIMOD	Kathmandu, Nepal July 15
Joseph Shea	Glacier Hydrologist	ICIMOD	Kathmandu, Nepal July 15
Bikash Sharma	Senior Env. Economist	ICIMOD	Kathmandu, Nepal July 15
Arnico Panday	Programme Coordinator, Atmosphere Initiative	ICIMOD	Kathmandu, Nepal July 15
Pradeep Mool	Programme	ICIMOD	Kathmandu, Nepal

	Coordinator, Cryosphere		July 15
Patrick Wagnon	Glaciologist (visiting scientist)	ICIMOD	Kathmandu, Nepal July 15
Siva Proveen Puppala	Aerosol Scientist	ICIMOD	Kathmandu, Nepal July 15
Subasma Shrestha	Communications Associate/Focal Point Atmosphere	ICIMOD	Kathmandu, Nepal July 15
Arun Bhakta Shrestha	Regional Project Manager RP3, RP4	ICIMOD	Kathmandu, Nepal July 15
Funu Shrestha	Research Associate, GIS	ICIMOD	Kathmandu, Nepal July 15
Dorothea Stumm	Coordinator Permafrost Special Project, Senior Glaciologist	ICIMOD	Kathmandu, Nepal July 15
Tika Ram Gurung	Research Associate Glaciologist	ICIMOD	Kathmandu, Nepal July 15
Shekhar Ghimire	Director Admin and Finance	ICIMOD	Kathmandu, Nepal July 15
Rahul Dabas	ERP	ICIMOD	Kathmandu, Nepal July 15
Prerna Thapa	Travel and Hospitality	ICIMOD	Kathmandu, Nepal July 15
Rajendra Mali	Finance	ICIMOD	Kathmandu, Nepal July 15
Saisab Dradhaw	IT	ICIMOD	Kathmandu, Nepal July 15
Mohan Shrestha	Admin, Procurement	ICIMOD	Kathmandu, Nepal July 15
Bijay Shrestha	Programme Finance	ICIMOD	Kathmandu, Nepal July 15

ANNEX 4 – Regional Programme Achievements

RP-1 Adaptation to Change

The Adaptation to Change Regional Programme includes three initiatives as outlined below:

Initiative	Countries	Partners	Time frame	Funding
The Himalayan Climate Change Adaptation Programme (HICAP)	China, India, Nepal, Pakistan	25	09 / 2011 – 12 / 2017	Norway - Ministry of Foreign Affairs (15.6 M US$) SIDA – Swedish Intl Dev Cooperation Agency (3.6 M US$)
Support to Rural Livelihoods and Climate Change Adaptation in the Himalayas (Himalica)	Bangladesh, Bhutan, Myanmar, Nepal, Pakistan	24	01 / 2013 – 12 / 2017	EU (10 M €)
Improving Livelihoods and Enhancing Resilience of the Rural Poor in the HKH to Environmental and Socioeconomic Changes (AdaptHimal)	Bangladesh, India, Myanmar, Nepal,	19	03 / 2014 – 03 / 2017	IFAD (1.2 M US$)

The Outcome for RP-1 is "Adaptive capacities of women, men and children of the HKH regional facing socio-economic and environmental change, including climate change, enhanced and supported through appropriate policies and practices."

Strategy

The Adaptation to Change Regional Programme's major goals are to enhance resilience and foster adaptation in mountain communities. The programme promotes innovative ways to improve livelihoods and aims for a sustainable management of natural resources in a changing world. The implementation approach is based on joint ventures with partners, on piloting with practitioners and beneficiaries, and on a strong promotion and support of policy engagement in order to foster upscaling and ensuring impacts. The programme was formed out of the previous "Sustainable Livelihoods and Poverty Reduction (SLPR)" programme. It is designed around a conceptual triangle composed of the areas 'science', 'practice' and 'policies. Activities are carried out within the context of two large and one smaller initiative and cover a wide thematic range from climate science over tourism management and value chain developments to community based pilot actions on water and agriculture. All these activities contribute to the overall and very widely formulated outcome. However, the connection between the scientific work at regional level and the piloting/demonstration activities at local level is often rather lose. The capacities of the governmental and non-governmental partners are extremely heterogenic resulting in variable quality of outputs. In order to achieve the strategic goals of the RP, long-term strategies are needed, particular in terms of policy influence and capacity building of governmental partners in the RMCs.

Results

The initiatives under RP-1 have contributed in diverse ways to the three operational pillars – a) improved understanding of the changes and responses to change, b) innovate pilots and action

research on livelihoods and adaptive strategies, and c) knowledge inputs to assist policy refinement and formulation. A large, complex set of partnerships is used to deliver outputs under these pillars through the three RP-1 Initiatives as outlined below.

The cumulative results report to the end of 2015 indicated that more than half of both the outcome and output level MTAP targets have been fully achieved, and 37% of the outcome and 11% of the output level targets have been partially achieved.[39] The reporting indicates that substantial progress has been made toward achievement of planned outcomes, ranging from knowledge generation, strengthening governance mechanisms to innovative approaches for enhancing adaptive capacities and diversifying livelihood options. This includes bridging knowledge gaps on climate scenarios and impacts, an improved understanding on poverty and vulnerability of mountain communities, community based early warning to flood hazards and the integration of ecotourism in sub-national development plans.

The number of institutions that have "upscaled" adaptation is estimated at 10 out of the targeted 12 institutions, with 28 local and 12 national institutions so far enabled to plan, implement and monitor, 46 communities trained in mitigating risks and managing climate change and some 5500 people having benefited from the programme to the end of 2015.[40] It is stated that there are now four "national and regional levels active in contributing to shaping policy and practices in innovative adaptation approaches". What this means in terms of significant changes in livelihood and other adaptive practises and degree of after project viability and sustainability remains to be seen. RP-1 contains such an eclectic array of relatively small scale contributions to adaptation, alongside many other similar government and NGO programmes it is difficult to clearly attribute major results to this $23 M programme. Nevertheless, it is evident that good initial results have been achieved from local level, project-specific and field activities of the various initiatives. However, the wider uptake of these results beyond local and national borders and the successful integration of strategies developed or supported by ICIMOD still needs to be shown in the next and final project years. A success story in this direction is the regional application of Poverty and Vulnerability Assessment (PVA) and climate change – migration research work. The PVA is also a good example where the link between research and pilot activity is given. The PVA survey tool was developed in the HICAP initiative and subsequently implemented in pilots in the Upper Indus Basin and it was used to conduct field surveys in China and Myanmar. Internally the survey tool found was taken up in the HI-AWARE and Himalica initiatives.

Himalayan Climate Change Adaptation Programme (HICAP),

HICAP is an applied research programme which was launched in 2011, having emerged from "Himalayan Climate Change Impact and Adaptation Assessment (HICIA)" carried out in 2008/2009[41]. It is currently funded by Norway and Sweden and is being jointly implemented by ICIMOD, GRID-Arendal, and the Center for International Climate and Environmental Research (CICERO). The Programme runs activities in five river sub-basins in the countries Pakistan, Nepal, China and India. HICAP aims to make contributions in the areas of research and knowledge production, community

[39] ICIMOD, Final Cumulative Report since 2013-2015, May 2016, p. 24
[40] ICIMOD, 2015 Annual Progress Report Detailed, Annex IV: Tabular Progress, p.
[41] ICIMOD Himalayan Climate Change Adaptation Programme (HICAP), A Project developed for the Ministry of Foreign Affairs, Norway, Revised version of July 2011

adaptation, as well as in decision-making on climate change adaptation policies with the final goal to identify opportunities for community adaptation that contribute to resilience and with a particular focus on gender issues[42].

With seven sub-components, 23 regional and four international partners, HICAP is a large and complex programme. It has been reported as a successful "flagship initiative within ICIMOD in terms of several internal processes and structures, contributing to the strategic design of the Regional Programme on Adaptation to Change as well as other ICIMOD programmes, and the initiation of the process of Joint Donor Reviews"[43]. There are a number of success stories related to the different components of the HICAP activities, which are widely cited within various ICIMOD documents. For example, (i) the first Himalayan water and climate atlas, (ii) the gender adaptive capacity action research showing evidence that communities supported by (women-focused) capacity building activities could cope better with earthquake impacts in Nepal, (iii) the piloting of community-based flood early warning systems in India or (iv) the climate change awareness actions through the training of journalists in all HICAP countries.

The results of the research and knowledge generation components are more visible than those related to policies. Hence, the programme has recently emphasised strategies and approaches "with regard to ways the programme can work effectively in policy engagement and how the results of HICAP documenting change in the Hindu Kush Himalayas provide valuable inputs for adaptation strategies in the region".[44] Indeed, substantial efforts were made to interact with decision making bodies at all policy levels, for example the Nairobi Work Plan processes of the UNFCCC, the Government of Nepal regarding the policies on payment of ecosystem services, or the improved understanding of resource management at local levels in various pilot regions within the context of climate smart community activities. The limits of the various components has been confirmed by an independent evaluation of HICAP carried out in 2015. It expressed confidence in the contributions of scientific research related to climate change and community adaptation including a series of place-based adaptation strategies but indicated uncertainty or reservations about achieving the planned outcomes by 2017 and doubts about likelihood of policy and decision makers at various levels taking such knowledge into account.[45]

Not all of the initiatives of HICAP can be expected to have a significant impact. For example, action research to support restoration of Erhai Lake wetlands in Dali, China involved "change scenarios through geospatial tools, analysing ecosystem values, and working with local communities and Chinese authorities to develop and test effective management methods".[46] However, there remain questions about the effectiveness of the artificial wetland operations and control of aquatic vegetation in the face of development pressures and the ability of the project to influence the wetland monitoring and management systems without some degree of further technical assistance

[42] IOD PARC, An Independent In-Depth Review of ICIMOD's Regional Initiatives, Final Report, June 2015.
[43] ICIMOD Regional Initiatives. Cumulative Results Fact Sheet. Reporting period 2013-2015
[44] ICIMOD Regional Initiatives. Cumulative Results Fact Sheet. Reporting period 2013-2015, p. 14
[45] IOD PARC, An Independent In-Depth Review of ICIMOD's Regional Initiatives, Final Report, June 2015.
[46] ICIMOD Annual Report 2015, p.12

and institutional development.[47] The small scale piloting activities, while helpful for alternative livelihoods, may be overwhelmed by larger scale water quality management challenges.
Large emphasis is placed on the community-based flood early warning system as an pilot achievement in the HICAP project. However, despite its unquestioned usefulness to the communities where it has been installed, it is not the result of innovative research.

Support to Rural Livelihoods and Climate Change Adaptation in the Himalayas (Himalica)

Himalica is a 5 years project financed by the European Union and being carried out in the five countries Bangladesh, Bhutan, Nepal, Myanmar and Pakistan. Overarching objective is the improvement of people's livelihoods in the Hindu - Kush Himalaya region within the context of social-economic and climate change. Expected results are capacity building of national and regional stakeholders and sustainable poverty reduction both to be achieved by active regional cooperation.

Since 2013, Himalica has supported the generation of knowledge on how climate and other changes affect mountain livelihoods (for example community consultations at pilot sites with respect to CC vulnerability, Poverty and Vulnerability Assessment (PVA) carried out in Myanmar and in preparation in Bhutan) and value changes that are most appropriate to sustainably improve the income situation in mountain communities (for example vegetables and goat rearing in Bhutan, ginger and Bamboo art craft in Myanmar)[48]. 'Action research' has been implemented on horticulture production in Pakistan, on sustainable tourism development and in Myanmar and on ecosystem services / management in Nepal, Myanmar and Bhutan. In terms of uptake, the Myanmar 'Ecotourism Policy and Management Strategy for Protected Areas', which has been developed with the support of ICIMOD, is often mentioned and will probably be taken up by the Ministry of Chittagong Hill Tract Affairs in Bangladesh.

Capacity building and outreach values of the Himalica initiatives are high with a probable 1795 households in 25 targeted villages across 5 countries, in addition to 240 households supported by Action Research on migration and – beside others - climate change adaptation training for 605 participants from governmental and non-government partners.[49]

Overall, Himalica has produced a number of remarkable outcomes, not all of which can directly be attributed to ICIMOD'S work alone but are strongly supported by other initiatives and programmes. An example is the application for a natural UNESCO heritage site for the HKAKABORAZI landscape. Gender issues have not always been sufficiently considered already in the design phase of the project (for example in the Shan district in Myanmar).

[47] The primary concern of management authorities is on generating revenues to pay the annual costs of leasing the wetlands from farmers (around 1000 households with annual payments of over 10 M RMB). The wetland is assumed to be operating as planned but there are limited data and local people are concerned about water quality. The project interventions with farmers practicing wetland agriculture involve 1.4% of the total wetland and no information on the uptake of contaminants by plants and animals are available. A comprehensive water and ecosystem monitoring system is needed but this is not part of ICIMOD's technical assistance mandate.
[48] ICIMOD Regional Initiatives. Cumulative Results Fact Sheet. Reporting period 2013-2015 and field observations
[49] ICIMOD Regional Initiatives. Cumulative Results Fact Sheet. Reporting period 2013-2015

Improving Livelihoods and Enhancing Resilience of the Rural Poor in the Hindu Kush Himalayas to Environmental and Socioeconomic Changes (AdaptHimal).

The IFAD supported initiative AdaptHimal aims - similar to HIMALICA - to improve livelihoods and enhance resilience of the rural poor[50]. The initiative is implemented in Bangladesh, India, Myanmar, and Nepal. Main achievements comprise the development and promotion of the Tulsi value chain, particularly in India, as well as the use of poverty and vulnerability assessment data and of the migration research findings for designing Rural Enterprises and Remittances. A particular emphasis has been set on the capacity building of partner institutions to plan, implement and monitor projects and programmes related to adaptation. Whilst results concerning the uptake of introduced activities in general seem to be less visible (attention-getting?) than in Himalica, the focus on gender issues and the direct involvement and empowerment of women has been pursued more consistently leading to the creation of women's cooperatives and to an envisaged participation of 80% of women in the pilot activities[51].

Factors affecting Results

- The capacity of the partners at the local level is key for the success of the pilot activities. The role of ICIMOD to influence the partner selection and capacity may be limited. A positive example is the fruitful cooperation with MIID in Myanmar.

- The success of policy integration seems sometimes rather arbitrary and ad hoc than as a result from long term strategic planning and focused activities of ICIMOD.

- The capacity in the less developed countries is very limited and requires uttermost attention before sustainable project results and particularly successful uptake of policies in governmental institutions can be expected. The large discrepancy in the capacities of the various RMCs requires particular attention and different strategic approaches.

- There are issues about M&E with partners; the priorities are not always in line with ICIMOD; the capacity may not be sufficient; differences in project cycles hampering the progress.

- For policy influence: the larger strategic picture is missing; no qualified personnel to look into that, not considered: need to look at all policy levels in order to achieve sustainability.

- The Nepal earthquake from April 2015 led to delays and political disturbances in project areas in affected progress.

RP-2: Transboundary Landscapes

The Transboundary Landscapes Regional Programme includes five initiatives as outlined below:

Initiative	Countries	Partners	Timeframe	Funding
Kailash (KSLCDI)	China, India, Nepal	12	2012-2017	DfID, BMZ-GIZ

[50] ICIMOD Regional Initiatives. Cumulative Results Fact Sheet. Reporting period 2013-2015
[51] ICIMOD Regional Initiatives. Cumulative Results Fact Sheet. Reporting period 2013-2015

Landscape Initiative for the Far Eastern Himalaya (HI-LIFE)	China, India, Myanmar	4	2014 -	Austrian Dev Agency (ADA)
Kangchenjunga (KLCDI)	Bhutan, India, Nepal	3	2012-	MacArthur Foundation, BMZ-GIZ, ADA
Karakoram-Pamir (KPLCDI) Wakhan-Pamir Landscape	Afghanistan, China, Pakistan, Tajikistan	10	2013 -	BMZ-GIZ, ADA
Regional REDD++ Himalaya	Bhutan, India, Nepal, Myanmar	6	2014-2018	BMUB/GIZ and Norwegian Ministry of Foreign Affairs

The Outcome for RP-2 is "improved cooperation among RMCs for sustainable and inclusive ecosystem management in identified landscapes for enhanced and equitable livelihood benefits, contributing to global conservation agendas."

Strategy

The Transboundary Landscapes Regional Programme aims for the conservation and sustainable use of natural resources at a large landscape scale through regional and bilateral cooperation using an integrated ecosystem approach. The overall approach has been developed mostly through the Kailash landscape initiative which commenced in 2012. The emphasis has been on country commitments to Regional Cooperation Frameworks, basic technical work and on-the-ground measures such as harmonized vegetation and land cover mapping, Responsible Tourism Guidelines, value chain development opportunities, benefits sharing methods under CBD, and a joint UNESCO World Heritage Site application. The main outputs relate to long term monitoring plans, ecosystem management activities and innovative livelihoods development. This has created a means of establishing working relationships and enhancing connections between management strategies on either sides of the borders. It is viewed as a gradual, long term process with a 20-year horizon with regular and continuous joint activity based on common interests. Net gains by the participating countries from modest but practical joint measures, particularly on alternative livelihoods, are viewed as the incentive to maintain momentum toward more elaborate long term transboundary cooperation on environmental management and conservation.

Results

The landscape programmes have created a new awareness and recognition of the special ecological and cultural characteristics and the need for collaborative approaches and actions. Cooperation has occurred through transboundary dialogue about wildlife management, cross-border cultural and market exchanges and South-South cooperation under REDD Himalaya. With ICIMOD's support, the RMCs have gradually become engaged in establishing various levels of collaboration on scientific research and specific land management issues in conjunction with sustainable livelihoods.

Understanding the ground issues and the development priorities is considered to be a core focus, particularly use of the "Landscape Yatra/Journey" (sacred walk) concept and promotion of value added livelihood opportunities. Practical alternatives to developing and managing livelihoods – tourism, livestock, harvesting of caterpillar fungus (*Cordyceps sinensis*), grassland products and controlling illegal wildlife trade, etc. are a central focus for conservation. The initiatives have provided a means of developing the initial research, discussion and action on many of these issues.

Yet despite harmonization efforts, substantive transboundary coordination seems to remain a long term goal.

One of a planned four landscape regional cooperation agreements has been adopted and is being implemented, four of the RMCs are now using landscape level conservation and development approaches, 18 stakeholder engagements have been completed and 11 management plans and 13 livelihood improvement strategies have been produced and some 2223 beneficiaries have been identified (although programme reach is estimated at 37,000).[52] About one-half of the output and outcome targets had still not been achieved by end of 2015.[53] Actual effects on livelihoods and on conservation practices in these remote areas have been modest, although the planning strategies, with emphasis on value-chain and markets have now become increasingly recognized. Yet, the vision and benchmarks for sustaining key transboundary landscape values that are under pressure remain relatively undefined or unrecognized. The critical connectivity issues and joint conservation and development principles to address them, drawing upon other international cross-border landscape network projects, appear to be overshadowed by the site research and livelihoods development activity. Compared to these four high mountain landscape initiatives, the evolving international standards and protocols for REDD and the national sources for funding and REDD readiness have helped to provide a more established framework for regional collaboration on REDD-related landscape management.

Kailash (KSLCDI)

The Kailash landscape initiative began with a preparatory phase in 2009-11. The vision for Kailash is based on "a sacred landscape in which the unique and rich biological diversity, cultural heritage, and vital ecosystem services are conserved for sustainable development of the region by adopting transboundary ecosystem management approaches".[54] The work is viewed as a long-term conservation initiative based on regional transboundary cooperation, ecosystem management and sustainable livelihoods. It is implemented in China, India, and Nepal and is facilitated by ICIMOD, funded by DFID[55] and BMZ-GIZ[56]. The programme is now reportedly in "an advanced stage of operationalization, as all participating countries are proactively implementing targeted activities and leveraging country resources to complement the programme". Implementation of participatory ecosystem management planning is underway in Bhutan, India and Nepal and some innovative monitoring and assessment experiments have been completed in China. For example, a participatory approach to ecosystem services assessment in Tibet engaged community members in data collection from experimental plots assessing the trade-offs between ecosystem water provisioning functions

[52] ICIMOD, 2015 Annual Progress Report Detailed, Annex IV: Tabular Progress

[53] ICIMOD, Final Cumulative Report since 2013-2015, May 2016, p. 27.

[54] ICIMOD, Kailash Sacred Landscape Conservation Initiative, A Regional Programme of Collaboration between China, India, and Nepal as submitted to DFID, July 2011, p.14

[55] DFID programme outcomes specified: "Improved policy formulation and interventions that target adaptation, mainstreaming of sustainable ecosystem management approaches and practices into all levels of national policies and plans, strengthened effective regional cooperation for transboundary ecosystem management, effective long-term environmental and socio-economic monitoring and research, and improved access to and use of local, national, and international information and knowledge by relevant stakeholders."

[56] GiZ, "Conservation of Biodiversity in the Kailash Region Programme", 03/2015 – 12/2017

and other functions (e.g., rangeland productivity for livestock) with useful insight about management choices.[57]

The Kailash partner in India has been nominated as the organizer of the National Mission for Sustaining Himalayan Ecosystems (NM-SHE). In China, the local government of Pulan County is also implementing livelihood activities using the programme's approach and strategies. The Long Term Environmental and Socio-Ecological Monitoring (LTESEM) framework published by ICIMOD along with a draft ecosystem management framework are now applied in Kailash pilots in Bhutan, India and Nepal for local ecosystem management planning involving all three country partners. The Kailash initiative has provided a significant prototype for transboundary landscape cooperation even though progress has been relatively slow.

Landscape Initiative for the Far Eastern Himalaya (HI-LIFE)

The Initiative aims to promote resource management that optimizes ecosystem services and livelihood co-benefits, helping the three country partners to view the landscape as a single management unit. The regional cooperation framework for HI-LIFE is now in the last stage of endorsement by the countries (including a name change from earlier Brahmaputra-Salween Landscape to Hi-LIFE).

A regional feasibility assessment report was prepared and thematic national consultations on understanding ecosystem service perspectives and livelihood linkages were organized with partners in the three countries. A scenario planning exercise was also conducted, which helped improve understanding of how ecosystem services can change in relation to future policy and resource management scenarios. Pilot sites for landscape management interventions on both ecosystem services and livelihoods development have been identified. Given the priority of agrobiodiversity conservation, a concept note on "Approaching the sustainability of Agro-ecosystem Management" and notes and pictographs on 'Landscape Journey' as a planning and monitoring process were prepared to assist the programme planning. Initiative priorities have been identified in consultation with national stakeholders to strengthen their ownership, but significant implementation is only now getting underway. There have been some delays in securing national endorsements and long-term funding for the initiative.

Kangchenjunga (KLCDI)

With support from the MacArthur Foundation, BMZ-GIZ, and Austria Development Agency, and in collaboration with partner institutions in Bhutan, India, and Nepal, ICIMOD has been working over the past decade (mostly carrying out studies) to promote and sustain participatory transboundary biodiversity conservation and development in the Kangchenjunga Landscape. The focus is to bridge conservation approaches with potential development aspects by enhancing local livelihoods while sustaining ecosystem service flows.[58]

[57] Luo Peng, Chengdu Institute of Biology, HICAP and Kailash Synthesis Report 2016-07-22 ppt presentation.
[58] ICIMOD, 2015 Annual Progress Report, Part B, 2016, p.47

KLCDI has finalized the regional cooperation framework based on the country level feasibility assessment reports and a regional synthesis as a basis for programme design and a 2016-2020 implementation plan. The RMCs have endorsed the regional cooperation frameworks.

Karakoram-Pamir (KPLCDI) Wakhan-Pamir Landscape

This initiative, supported by BMZ-GIZ and ADA, aims to address cross-border conservation challenges and increase livelihood opportunities including ecotourism through the development of a regional plan for implementation. Under an agreement between China and Pakistan, a major cross-border event was organised, setting the pace for programme design and ownership from local and national governments. A consultation workshop developed the programme document and formulated an implementation plan.

This initiative is considered to be in an advanced stage since the countries have agreed to cooperate and collaborate within a regional cooperation framework. Model pilot activities are underway. For example, support was provided for the development of the rangeland policy of Gilgit-Baltistan, and the Rangelands Policy in Pakistan was developed and approved by the cabinet of the Khyber Pakhtunkhwa (KP) government. The initiative produced its first book – "Understanding the Karakoram-Pamir Landscape". Studies have also been completed on abundance, distribution, and conservation status of key local wildlife species and on watershed health assessments, carbon stock assessment and medicinal plant inventory. A "Zero Point Market and Cultural Festival" was organized with participation from high level government officials both from Gilgit-Baltistan Province of Pakistan and Xinjiang Province of China, and a workshop was held on responsible tourism in the Karakoram Pamir Wakhan Landscape.

Regional REDD+ Himalaya

The regional REDD+ initiative was rolled out in four countries in 2015, with government partners and a major regional event has established a south-south learning platform. It is a four-year project funded by the German Government through GIZ. The programme addresses aspects of the REDD+ development process in Nepal, Bhutan, India and Myanmar. Components of the programme focus on capacity building and training, technical and organisational advice, and the development of methods for the measurement, reporting and verification of carbon storage. ICIMOD has already gained its first experiences of REDD+ pilot projects in Nepal, and the Himalayan states have called on the organisation to provide comprehensive support in this area. As a 'regional centre of learning', ICIMOD has an important mandate to support knowledge exchange and disseminate innovative approaches in the region.[59] Support for national REDD+ programmes is also critical. For example, in 2015 ICIMOD was able to collaborate with UN-REDD in implementing two studies in 2015 in Nepal, which have regional scope for replication. This regional initiative is one part of larger scale REDD efforts in the region, including complementary programmes of the World Bank, NORAD, GIZ, US Aid, DFID, SDC and FINIDA.[60] Stakeholder platforms and exchanges assisted by ICIMOD within and across the national REDD+ programmes add to significant regional learning.

[59] https://www.giz.de/en/worldwide/26913.html

[60] Government of Nepal, REDD+ Himalaya Nepal Project Progress Report 2015

REDD+ successfully linked research and pilot activities. As a research activity carbon data was collected, which then served as an information base in a pilot community-managed Forest Carbon Trust Fund.

Factors affecting Results

- Recognition of the globally important ecosystem and cultural values and support from international bodies and processes (IUCN, UN-REDD, etc.) for conservation has been an important, positive aspect of generating profile, commitment and funding for the initiatives;

- The number and complex relationships between direct and indirect implementing partners, some of whom have not been able to deliver approvals or outputs in a timely manner and lacked understanding of the necessity of engaging with a diverse set of stakeholders.[61]

- The uncertain availability of long-term funding in some of the landscapes and long lag times between consultations and action have had an adverse effect on partners' interest and momentum for implementation;

- Limitations have sometimes existed in supervision and support for programme implementation, establishing common approaches and weaknesses in quality control and partnership structure including roles and responsibilities.[62] This may be due in part to the diverse nature of the components, the remote working locations and the lack of capacity of some of the local partners;

- Difficult and remote conditions that contribute to slow progress in fully establishing and linking value chain development, integrated natural resource and ecosystem management approaches and the collection of socio-economic and environmental data; an emphasis on technical exchanges rather than more substantive progress on addressing tourism, illegal trade, *Yarsagumba*, long term eco-monitoring issues;

- The lack of clear, useable indicators for monitoring landscape level values at risk. For example, the baseline reports prepared in 2010/2011 for Kailash provide a means for assessing changes in biophysical and socio-economic attributes of the Kailash landscape but it is not possible to know from the available information the current status of these attributes and trends in conditions.

RP-3: River Basins

The River Basins Regional Programme includes five initiatives as outlined below:

Initiative	Countries	Partners	Timeframe	Funding
Himalayan Adaptation, Water and Resilience (HI-AWARE) Research	Nepal, Pakistan, India, Bangladesh	16		DIFD UK Government; Intl. Dev. Research Centre (IDRC), Canada

[61] ICIMOD 2015 Annual Progress Report, P.48-49

[62] GiZ, Project Evaluation Report, Conservation of Biodiversity in the Kailash-Region, May 2016

HKH HYCOS Initiative	Bangladesh, Pakistan Bhutan, Nepal, China, India	8		Government of Finland
Koshi Basin Initiative	Nepal, India, China	14		DFID UK Government of Australia
Indus Basin Initiative	Pakistan	11		DFID UK Government of Australia
WLE Initiative special project	Nepal, India	1		CGIAR/IWMI

The Outcome for RP-3 is "actionable proposals for integrated water resource management (IWRM) practices and policies, including measures for risk management and for equitable access to water for energy and food security, formulated, shared, and used at basin and community levels".

Strategy

The River Basin Regional Programme has concentrated on development and application of information systems for flood and drought management, hydrological and runoff modelling and forecasting tools, climate change scenarios and impact assessments, community based early warning systems and various methods for watershed, springshed and integrated water management. The main focus is on research and pilot interventions, capacity building and policy engagement on climate resilience and adaptation in the Indus, Ganga and Brahmaputra river basins in Nepal, Pakistan, India and Bangladesh, and on hydro-meteorological and IWRM capacity development.

Targeted basin-scale investigations have been undertaken in five river basins with an emphasis on integrated water resources management and risk reduction. The strategy has been to selectively enhance the data collection, analyses and predictive capabilities, to better understand upstream-downstream linkages, and to strengthen the collaboration and knowledge sharing among researchers and water management authorities at a river basin and regional level.[63] The effective use of the improved information systems, analytical tools and technical capacity is the driving force that will determine impact of the programme.

Results

RP-3 has been focussed on addressing gaps in information, methods and capacities for various aspects of river flood and drought management and IWRM. Key achievements reported include:

- Development of a regional flood information system, which integrates several value-add information products, meteorological data from GTS network of close to 300 stations, satellite precipitation estimates and other data useful for addressing flood vulnerability;
- Information platforms such as Koshi Basin Information Platform, Indus Basin Knowledge Platform, designed to assist the water management partners and stakeholders;
- Downscaled climate scenarios and tools to analyse water availability scenarios (in collaboration with HICAP), analysis of upper Indus, Gandaki, Teesta and baseline information of Koshi basin;
- Improved understanding of linkages among the water-food-energy-security nexus, including new technologies in crop monitoring and issuance of crop situation update bulletins;

[63] See for example: Vaidya, RA; Sharma, E (eds) (2014) *Research insights on climate and water in the Hindu Kush Himalayas*. Kathmandu: ICIMOD

- Institutional capacity enhanced to gather, analyse, and share data on water modelling and within an IWRM frame for Department Hydrology and Meteorology (DHM), (Nepal) and Bihar State Disaster Management Authority (BSDMA), WRD (Bihar);
- Regional cooperation between Bangladesh, Bhutan, Nepal and Pakistan on sharing hydro-meteorological data on a real-time basis from their select stations.[64]

The ICIMOD M&E data indicated that RP-3 had fully achieved 66% and partially achieved 17% of the outcome targets, and some 75,000 people are estimated to have benefited from the programme.[65] The M&E data indicated that 11 partners are using programme inputs and analysis for developing various management implementation guidelines for disaster risk reduction and improved access to and use of water, 1200 people benefitted by improvements at selected river basins, eight glacio-hydrological models have been prepared for selected sub-basins, 38 stations have been providing real time data on hydro meteorology and 15 organizations are sharing data through internet knowledge platforms.[66] These are impressive results, yet it is also apparent that many knowledge and capacity gaps remain, and some of the partner agencies have not yet been able to fully adopt and operate the facilities and systems provided by the programme. There are examples of products (e.g., flood inundation map, modelling tools, flood outlook), that in the view of some stakeholders, have not been as effective or operationalized as expected due to capacity constraints and limited short term involvement of the responsible agencies.

Himalayan Adaptation, Water and Resilience on Glacier and Snowpack Dependent River Basins for Improving Livelihoods (HI-AWARE)

HI-AWARE is part of the consortium - *Collaborative Adaptation Research Initiative in Africa and Asia*. It conducts research and pilot interventions, capacity building and policy engagement on climate resilience and adaptation in a five-year programme aimed at developing climate change adaptation approaches and increasing the resilience of communities in the Indus, Ganges, and Brahmaputra river basins. There are three Work Packages—Knowledge Generation, Research into Use, and Strengthening Expertise—in 12 sites in the Indus, Upper Ganga, Gandaki and Teesta river basins. The activities reported in 2015 reflect a diverse agenda: literature review on empirical-statistical downscaling methods, piloting of climate smart practices, situational analysis in four study basins, piloting of heat monitoring, research support for graduate students, stock taking of research status and *Research into Use* strategies and organized trainings on Impact Pathways, Theory of Change and M&E. An appropriate mix of incentives and tools to use the research findings and pilot outcomes is proposed.

HKH HYCOS Initiative

Substantive improvements in flood monitoring and early warning systems have been introduced at several locations in Bangladesh, Bhutan, Nepal, and Pakistan. Reliability of the ICIMOD model based on the regional flood outlook for flood forecasting purposes reportedly needs to be further examined. Joint field visits may not be sufficient to ensure ongoing "smooth operation of the

[64] ICIMOD, Final Cumulative Report since 2013-2015, May 2016, p. 31
[65] ICIMOD, Final Cumulative Report since 2013-2015, May 2016, p. 30 and 32.
[66] ICIMOD Progress Report 2015, May 2016, p. 196.

hydrometeorological stations". Partners are more cautious about direct application and sustainability; ICIMOD's ongoing responsibility to maintain facilities is anticipated by partners.

Koshi Basin Initiative

A climate-water-food-energy nexus approach has been introduced and studies on water availability and demand have been prepared at the sub-basin level for baseline and future climate scenarios, including trade-offs related to different agriculture and hydropower development scenarios. An IWRM approach for local water management has also been undertaken in selected districts in Nepal.

Data from upgraded hydrometeorological stations in Nepal and Bihar is valued and has enhanced the flood management systems. Collaboration with the Pilot Program for Climate Resilience (PPCR) and Integrated Water Resource Management (IWRM) projects in Nepal has also been productive. RMC partners in Nepal and Bihar State have particularly improved the design of water management planning through this technical assistance. The Koshi Basin Information System is reported to be extensively used by 15-20 partners. It is certainty appreciated and it may be too early to ensure mainstreaming into government, but in discussions with some of the partners we could not validate the operational use of the system for government purposes in Nepal.

Indus Basin Initiative

In Indus, the programme has included community-based glacier monitoring and flood early warning system in Pakistan, agricultural water, energy, and hazard management in the Upper Indus Basin for improved livelihoods, regional networking and knowledge sharing, scientific publications, news, and articles through the Indus Basin Knowledge Platform, capacity building on the application of Spatial Processes in Hydrology (SPHY) model for water resources management. The Upper Indus Basin (UIB) Network has been a key mechanism for regional discussions and cooperation even though the main focus has been in the upper river system within Pakistan.

Water, Land and Ecosystems (WLE) Initiative

The CGIAR Research Program on Water, Land and Ecosystems (WLE) has focussed on "Reviving springs and providing access to solar powered irrigation pumps (SPIP) through community-based water use planning: Multiple approaches to solving agricultural water problems in the mid-hills and Terai in Nepal and India".

Factors affecting Results

- Limited or uncertain baseline data on significant flooding, drought and other natural hazards and risks to mountain communities, and the critical gaps in addressing the impacts of climate change, along with the lack of recognition of the upstream-downstream water management inter-relationships and the difficulties in reaching mutual agreement on transboundary cooperation.

- Extent of involvement and commitment of both civil society organisations and government agencies in testing river basin management innovations, developing capacity and supporting policy advocacy that affects the readiness to utilize ICIMOD's support. The readiness of government partners to utilize technical assistance and to absorb and sustain capacity building in the context of low budgets and high staff turnover is a real constraint.

- Lack of well define pathways toward policy influence extending from the technical studies and pilot interventions - both translating research and piloting findings into actionable policy measures.

- The vague or uncertain degree of commitment to institutional reform and development (e.g., reliance on soft approaches such as "persuasion-based (long term thinking) approach for effective engagement"); a high rate of government staff changes and lack of institutional memory and the need to directly address the issues of the usability and sustainability of many of the important programme outputs.

- The wide range of important studies, demonstrations and trainings by many partners and many different yet related aspects of river basin management within a very general set of overarching themes. These are sometimes a series of one-off activities that need greater focus on substantive, well-defined and verifiable outcomes that have a clear basis for operational sustainability.

- Maintaining a level of momentum and engagement by the research consortia in the face of other time commitments has presented a constraint.

RP-4: Cryosphere and Atmosphere

The Cryosphere and Atmosphere Regional Programme includes two initiatives as outlined below:

Initiative	Countries	Implementing Partners	Time frame	Funding
Cryosphere	Afghanistan, Bhutan, China, India, Myanmar, Nepal Pakistan	- 1 Partner - 3 Partner - 3 Partner - 6 Partner - 1 Partner - 6 Partner - 7 Partner + 18 international partners	2010 –2015 Substituted with new agreement for period 2013 – 2017	Norwegian Ministry of Foreign Affairs (35 Mio NOK = ca. 4,2 Million us$) Norwegian Ministry of Foreign Affairs (7,8 Mio NOK = ca. 0.94 Million us $)
Atmosphere	Bangladesh, Bhutan, India Nepal, Pakistan	- 2 Partner - 2 Partner - 4 Partner - 15 Partner - 2 Partner + 11 international partners	2013 – 2017	Norwegian Ministry of Foreign Affairs Institute for Advanced Sustainability Studies (IASS), Germany UNEP/Climate and Clean Air Coalition Sida / Government of Sweden (Total 9 Mio US$)

The Outcome for RP-4 is "RMC institutions have enhanced capacity to generate and access relevant data and knowledge about the cryosphere, contributing to effective measures and policies for mitigating local atmospheric emissions and to water resource, air quality, and risk management.[67]

Strategy

The Cryosphere and Atmosphere Regional Programme's major goals are to increase the understanding of a change in glaciers, snow and glacial lakes as well as the state of the atmosphere in HKH. The programme aims to contribute to improved water resource and risk management as well as a reduction in black carbon. In reality, the two initiatives are quite independent from each other. In the following chapter we therefore treat the two separate from each other.

Cryosphere Initiative

Results

The Cryosphere initiative has been generating and disseminating updated data and knowledge on the cryosphere and technically supporting partner institutions. Research activities include field base approaches as well as remote sensing activities. Data are disseminated through a knowledge hub. Furthermore, capacity building activities are conducted.

The field based research comprises glacier mass balance, snow monitoring and hydrological monitoring (run-off) in the test sites such as the Yala Glacier (Langtang Valley), Rikha Samba Glacier (Hidden Valley), Mera Glacier and Pokalde Glacier (both in the Dudh Koshi Basin). Modelling activities and as well as UAV survey on debris covered glacier complete the field based activities. The remote sensing based activities comprise three major lines: MODIS based operational snow products, a time series on glacial lakes for Nepal and Bhutan and a glacier inventory for five major basins. Data products are disseminated through ICIMOD's Regional Database System. The scientific findings are well published. ICIMOD contributed effectively to capacity building in the field of cryosphere by initiating a master program together with the Kathmandu University on Glaciology. Furthermore, it supported the program for Monitoring and assessment of changes in glaciers, snow, and glacio-hydrology which was initiated with the Department of Hydro-Met Services (DHMS), Royal Government of Bhutan. A project on the impact of permafrost thaw in the Hindu Kush Himalayas, which seems to be under development sounds very promising. ICIMOD's inventory, assessment and design work on GLOF risks has been an important contribution to risk reduction programmes.[68]
Considerable efforts are made to collect, analyse and store a wide range of datasets. Various databases are populated, maps and online visualisations produced, however it is not clear which applications or pilot implementation will be able to use this information.

For the Cryosphere initiative, two Norwegian experts conducted an extensive external review [69]. The findings from this review have been included in the assessment. The overall assessment is positive. The initiative addresses a very relevant topic for the HKH region. The research component is very well established with a good record of scientific publications.

[67] ICIMOD, Approved Final Strategic Framework, October 2012, p. 14
[68] E.g., ICIMOD, Glacial Lakes and Glacial Lake Outburst Floods in Nepal, 2011.
[69] Torgrim Asphjell and Geir Moholdt (2015) Review of Monitoring and assessment of changes in Glaciers, Snow and Glacio-hydrology in the Hindu Kush - Himalayas with a special focus on strengthening the capacity of Nepalese organizations The HKH Cryosphere Monitoring Project, Norwegian Environment Agency and Norwegian Polar Institute

Factors affecting Results

- Scale of local work is limited to few countries (mainly Nepal, little bit on Bhutan), while other RMCs are working on independent initiatives outside (e.g. China, India).
- Activities are very research oriented, expressed by a high number of papers. However, the applications of the knowledge gathered are less clear and policy impact not very visible.
- It is important for the initiative to consider all field elements (e.g. campaigns, instrumentation) and determine which are of a temporary character, e.g. to reach specific science goals, and which are suitable for long-term monitoring within the mandate of governmental institutions.
- Sufficient resources also need to be allocated to the transformation of scientific findings into operational hydrological models and assessments that can be utilized by regional institutions for water management on a regular basis
- Link to other regional programs not so obvious, even if very relevant for the topic (e.g. for river basins)

Actions needed:

- Evaluate options for more HKH wide activities and/or coordinated activities in or with other RMC on cryosphere activities.
- Link with other regional programs should be improved where applicable (e.g. river basins).
- Integration with local and regional institutions should be improved (such as the Nepal Water and Energy Commission Secretariat (WECS) and the Department of Hydrology and Meteorology (DHM).

Atmosphere Initiative

Results

ICIMOD's Atmosphere Initiative aims to bring about effective measures and policies for reducing air pollution and its impacts within the HKH region by improving knowledge and enhancing the capacity of partners in the regional member countries. The programme plans to set up air quality and climate observatories at a number of sites ranging in altitude from 100 to 5000 meters above sea levels. Two observatories in Bhutan and two in Nepal are operational. The initiative has completed the "Sustainable Atmosphere for the Kathmandu Valley" (SusKat-ABC) field research campaign and written more than 20 peer reviewed papers on the campaign. An atmospheric modelling centre has been set up at ICIMOD with four scientists working full time on modelling. A multi-year coordinated study of the persistent winter fog across the Indo-Gangetic Plains with measurement sites at 15 locations in 5 countries was conducted. The initiative has furthermore initiated a programme to reduce emissions from brick kilns across the region and an activity on cook stoves.

In the Atmosphere Initiative considerable effort is made to collect, process and store data. However, there is no clear link how these emission inventories are put to use, whom this data is informing or what the user case is. Regarding the pilot projects, for example for the fan-assisted cooking stoves there is no obvious link to research activities this could have been developed from.

An independent review[70] came to very positive conclusions:

- The Initiative has been successful in producing high volumes of research, as well as in installing equipment for atmospheric measurements that can potentially contribute to new approaches to atmospheric issues tailored to the HKH region. SusKat in particular has been a highly productive element of the Atmosphere Initiative.
- The initiative is deemed to be on track in terms of its deliverables, and the review is confident that the Atmosphere Initiative has high potential to make an effective contribution in the following areas: (i) an enhanced scientific understanding of black carbon and other Short Lived Climate Forcers (SCLF) in the HKH region; (ii) effective dissemination of black carbon and SLCF policy options; and (iii) tested and disseminated actionable measures (technologies, policies) to reduce black carbon and other SLCF concentrations and their impact
- ICIMOD possesses the human and computational resources to do atmospheric modelling and has the long-term aim of becoming a 'knowledge hub' with regional specialisation
- Particularly in Nepal and Bhutan the engagement of national agencies within the Atmosphere Initiative was high

From the material, made available to the reviewers and the interviews, it seems, that the Atmosphere Initiative is a very good example on how science can produce knowledge, which has been missing so far to inform policies. The science side of the Atmosphere Initiative is very strong which respect to the output (publications) but also with respect to the networking (workshops, international campaign SusKat). Cooperation with CCAC (a UNEP program) is very much appreciated.

Factors affecting Results + actions needed (based on the IOD-PARC review and own impressions):

- Better integration of the Atmosphere Initiative with the RMCs science plans
- Better focus on intermediate results (complementing the long term outcomes)
- Challenges due to difficulties in data sharing amongst RMCs
- Hand-over of infrastructure to RMC's authorities: There is a need for a strategy including funding, human resources, training.
- Extend the approach beyond Nepal, with a goal of a regional database for air quality issues.
- The 'fit' of the cook stove project work with the focus and niche of the Initiative is not very clear. Consider outsourcing to other partners.
- Link between Atmosphere and Cryosphere a little bit artificial

RP-5: Mountain Environment Regional Information System

The Mountain Environment Regional Information System Regional Programme includes two initiatives as outlined below:

Initiative	Countries	Implementing Partners	Time frame	Funding
SERVIR-Himalaya	Bangladesh Bhutan India Nepal Pakistan	- 4 Partners - 5 Partners - 3 Partners - 11 Partners - 5 Partners	Phase 1: 2010 – 2015 Phase 2: 2015 - 2020	USAID 4.9 Million US$

[70] IOD PARC (2015): An Independent In-Depth Review of ICIMOD's Regional Initiatives Himalayan Climate Change Adaptation Programme (HICAP) and the Atmosphere Initiative, Sheffield, United Kingdom.

		2 international Partners		
Regional Database		NA		ICIMOD Core 2013-2015: 122K US$

The Outcome for RP-5 is "Strengthened information networking and regional capability, facilitating adoption of evidence-based mountain development policies and practices by the RMCs".

Strategy

The MENRIS Regional Programme aims to enhance the capacities of cooperation partners and to strengthen regional information networking for effective use of information and knowledge products in developmental and environmental decision-making. Two initiatives – SERVIR Himalaya and Regional Databases are working to achieve these goals.

The Regional Databases has been launched as a core initiative with the commitment of ICIMOD toward establishing a systematic database management system. The key objectives of this initiative are to develop a central data repository for storing various thematic datasets generated by ICIMOD's different initiatives, provide easy access to these data, and develop appropriate policies for data sharing within the Centre and the region.

Both initiative, SERVIR and Regional Database are to a large extent designed to deliver data products and provide a data hub to the other regional programs. Particularly on the remote sensing side, some original research and development is also conducted. Both are important corner stones in ICIMODS function as a knowledge hub for the HKH Region.

Results

The SERVIR Initiative has let to several key achievements including a Himalayan wide snow data set, a Forest Fire Monitoring and Alert System operational in Nepal and Bhutan, a land cover data set for Nepal, Bhutan and the HKH regions of Pakistan and Bangladesh, an agriculture and drought monitoring system for Nepal. Furthermore, ICIMOD has been active after the 2015 earthquake to coordinate with NASA for accessing satellite image interpretation of damage. Data are shared through the ICIMOD's Mountain Portal. Capacity building is an important component of SERVIR, including training and workshops but also a Small Grants and Small Scale Programme funded by USAID for funding 14 smaller initiatives related to the application of geospatial solutions.

Within the Regional Database, currently 219 datasets are available for download including satellite products and results from other regional programs. Furthermore, the regional database has served as a blueprint for the National Geospatial Portal for Bhutan.

SERVIR-Himalaya

The SERVIR-Himalaya Initiative is a very valuable an important initiative. Remote sensing data is a very important data source in data scarce regions like the HKH region. The close relation to NASA in the development of remote sensing based products is a clear advantage, with regard of data access, support in the development of products and support in infrastructure. The initiative has proven in the past that they are able to deliver information and knowledge in fast response to user demand. The rapid response the 2015 earthquake is highly appreciated. The staff is well trained and is of sufficient number. The capacity building activities of the initiative are a very important element

within the initiative. The biggest success in an up-take of results from SERVIR are the Agriculture and Drought monitoring system in Nepal, the Forest fire monitoring and alert system for Nepal and Bhutan and the support for the REDD evaluation in Nepal. However, external evaluations have also shown that the partner agencies have experienced difficulty in utilizing some of the remote sensing technical assistance.[71]

Regional Database System (RDS)

ICIMOD's approach to make all data gathered by the various ICIMOD initiatives available is highly appreciated. The technical infrastructure with an open accessible database which contains all metadata and, where applicable, data, is a very important key element. Probably as important is the open policy to data. Therefore, ICIMOD's Data Policy developed and endorsed by ICIMOD's Board of Governors is indeed a key achievement. The fact, that ICIMOD's database is registered in the GEOSS system supports strongly ICIMOD's goal towards global visibility and linkages and supports the strategy towards shared mountain data across the world. The up-take of the ICIMOD's RDS design by the government of Bhutan indicates the role of ICIMOD as a knowledge and capacity building hub for the HKH region.

Factors affecting Results

- A general challenge of remote sensing applications is the match with user needs. ICIMOD is well aware of this fact (mentioned e.g in the "learning section" of the initiative fact sheets). While in a first instance, potential users are often not aware of the abilities of remote sensing; in a second step they raise very high expectations towards the information with regard of thematic accuracy, spatial and temporal resolution. Often, the reality of remote sensing (e.g. data gaps due to clouds, missing resolution) hinders an operational up-take.
- Up-take of remote sensing data, as with all scientific data, also strongly depends on the official recognition by authorities of the quality of such data sets. For instance, the up-take of the land cover map produced by ICIMOD for Nepal is constrained by a missing recognition of the Nepalese government. [72]
- We see a key for successful applications of remote sensing in the integration of remote sensing data into models, assessments etc., where remote sensing is one data set of many.
- Within ICIMOD, the regional programs seem not to fully exploit the potential of remote sensing yet.
- Until now, ICIDMO is only using optical data. Today, a set of free radar data (e.g. Sentinel 1, EUMETSAT-ASCAT) is available, which would allow new applications
- The exclusive cooperation with NASA is limiting contact with some countries (e.g. SUPARCO of Pakistan).
- Until now, there is no relationship to the COPERNICUS Program of the European Space Agency (ESA), which can be regarded as the new flagship of remote sensing data with free access all data and products.
- ICIMOD is not yet prepared for the new area of big-data, which demands a paradigm-shift from local data hosting and processing to cloud computing and federated infrastructure.

[71] PLEASE PROVIDE FULL REFERENCES

[72] SERVIR Evaluation report by USAID.

- The Regional Database System suffers from the still difficult data sharing policy amongst RMCs.
- In our tests, the Regional Database system was still a work in progress. The general structure seems still a little bit confusing (Mountain Portal, Data Viewer) and it is not always obvious, where to find what. Furthermore, a test to access data (e.g. the MODIS Snow Cover through data viewer) where not up-to-date, slow or not successful.

Actions Needed:

- Perform a thorough analysis of the demand for spatial explicit information, the potential contribution of remote sensing products and which other sources of information would be needed to achieve a meaningful result
- Start with the regional programs of ICIMOD. Focus on the potential of remote sensing to deliver area-wide data. The potential to use remote sensing data should be explored early in the planning phase of an initiative.
- Consider remote sensing as one data-input into models and not as stand-alone result.
- Strive as far as possible towards HKH wide consistent data sets, which would allow analysis across topics. For instance, a consistent database on snow and air quality could allow better studies on impact of black carbon. Or a database on meteoroidal parameter, run-off data and snow data would allow to perform studies on run-off and run-off predictions.
- Consider the use of European data and products from the European Copernicus Program. Work through partnerships
- Come up with a strategy how ICIMOD should react on the new demand for big-data and shared infrastructure
- Continue to work on a common and open data policy for key environmental data across the HKH region
- Make the Regional Database more consistent and more efficient regarding up-to-datedness, speed of access and logical structure.

RP-6 Himalaya University Consortium

The Outcome for RP-6 is “Enhanced collaboration and networking among universities in the Hindu Kush Himalayan region leading to increased capacity of professional women and men for sustainable mountain development through mountain-specific education.”

Activities	Countries	Partners	Time frame	Funding (USD)
• Seed grants to young professionals • Mobility program • Regional research programs • Trans-boundary research projects • Regional research workshops • Co-supervision of MSc and PhD students • Joint publications • HUC data base for sharing	All	ICIMOD – secretary	(2007) 2014 -	100 k€ ICIMOD core funding

Annex 5: Types of Activities in Regional Programmes

ICIMOD Regional Programme initiatives	Number and examples of activity types within regional programme initiatives				
	Research, studies and data collection	**Technologies development**	**Piloting and demonstration**	**Training and capacity development**	**Policy dialogue**
1. Adaptation to Change					
Rural Livelihoods and Climate Change Adaptation (Himalica)	Action research on **Destination Management Plan** in Myanmar **Local level climate change adaptation and development policy gap analysis** for two districts in Nepal Action research: Pakistan: **pollination and migration**, Nepal: **extension services on agriculture**, 2 VCAs on **tourism** in Myanmar; 2 VCAs on **horticulture** in Pakistan; MIID: detailed assessments of land, water, gender and livelihood options of target villages in Kalaw and Nyaung Shwe Township **Poverty and Vulnerability Assessment (PVA**) conducted in Shan and Chin States, Myanmar **Produced draft land-use and vegetation cover-change maps**, with ecosystem services indicators for Inlay Lake area Two **value chain analysis on beekeeping** in Bhutan and Bangladesh	Developed **a framework for integrating gender** in value chain analysis **Designing a gender-specific checklist** and tools at the institutional level; **Developed an Ecosystem Service Assessment Framework**	**Supporting NAPA and LAPA implementation process** in selected districts **Destination Management Plan** for the Inlay Region will be implemented by the Shan State authorities **Pilots for upgrading vegetable and goat meat value chains** in Bhutan Pilot in Bandarban focusing on **tourism value chains** in Bangladesh Pilot project implementation for **climate smart value chain development** in Myanmar 2 Pilots in Nepal (Taplejung and Udaypur district) and 1 in Pakistan (Gilgit-Baltistan);	**Needs and capacity assessment workshop** for local stakeholders exploring the role of **labour migration and remittances for CCA** in Kyber Pakhtunkhwa and Gilgit-Baltistan **2 ToT on Adaptation to Change** at local and regional level in Nepal **Several capacity building events and trainings in CCA and adaptation to change and risk management** **CCA Training** of Master Trainers in Pakistan **Regional ToT on community-led micro-planning** with a water, energy and food nexus in Nepal **Training on improved options for integrated Water management** **Training RCT Flood Preparedness,** Nepal **Training workshop on CCA** in Pakistan	Development and implementation of the **Destination Management Plan** (Inlay region) with the **Union Government of Myanmar** Providing technical expertise for the formulation of **Myanmar's Ecotourism Policy and Management Strategy** for 21 designated protected areas for the Union Government of Myanmar – Ecotourism Task Force (12 relevant Ministries) Exposure visit to Nepal with government organizations
Total	**9**	**3**	**8**	**13 +**	**3**
Improving Livelihoods	Assessment to identify and	**Tools for situational analysis**;	**Value Chain pilots** on Tulsi in	**Capacity enhancement in**	Contributing to **State**

& Enhancing Resilience (Adapt Himal)	document **rural micro-enterprises** by returnee migrants in four districts in Nepal **Survey** in the state of Meghalaya, India	Refined **PVA framework and survey tool** **Innovations in tulsi supply chain**	Uttarakhand, HVAP in Bhutan **Value chain pilot on Perilla** **Implementing of interventions to improve natural resource management** in shifting cultivations Chin district, Myanmar	**CCA and Value Chain** of 5 IFAD project partners and NGO partners **Training on micro planning** with strategic partners **Knowledge sharing activities** to enhance the capacities of implementing partners from all four countries: five different trainings **Institutional capacity building** in on-farm and landscape-level natural resource management of transformations in shifting cultivation landscapes in Bangladesh **Training on 'Improved Options for Integrated Water and Land Management'** in Myanmar	**Adaptation Plans** for Uttarakhand and North East India and NIAR India
Total	**2**	**3**	**4**	**8**	**1**
Himalayan Climate Change Adaptation (HICAP)	**Studies on migration, climate change and gender issues** in Yunnan prov., China Gender action research on **adaptive capacity** in Nepal and Dali Wetland in China Ground-level **vulnerability assessment** (8000 households) for quantitative analysis and several place-based qualitative research and ecosystem assessments Action Research on **migration, remittances, and disaster risk**	Refinements of **organic pesticides and fertilizers technology** in Kavre district, Nepal **VACA** standardised **Methodology for community-based flood early warning system (CBFEWS)**	**Climate smart water harvesting and agricultural cropping systems** in Nepal **EWS in process in Assam**, India **FP and community based FEWS field tested** **Valuation of ecosystems** **Pilot on Climate Smart Villages** in four villages in Koshi Sub-basin in Nepal	**Training in ecosystem assessments** Local level training on **Community Based FEWS** in India **Journalists trained in climate reporting** Training at local level in Assam, India **Women leadership** and financial training in China	Contributing to **National Adaptation Programme support process of UNFCC** Contributing to the **Food Policy document of Pakistan** Contributed to the **Status Report on Labour Migration** published by the Government of Nepal Member of the **policy task force for payment for ecosystem services** formed by the Ministry of Forests and Soil Conservation of Nepal

	reduction in India Action Research on enhancing the **adaptive capacity of women** in Nepal **Two studies** in Pakistan on **PVA**, places based study on food security in the Upper Indus Basin				**Policy dialogue process on the Brahmaputra River basin** in India, on PES in the Koshi basin in Nepal, and on the ecosystem assessment approach in the Upper Indus Basin in Pakistan **Policy conference** on 'Action for Adaptation: Bringing climate change science to policy makers' in Pakistan Expert symposium on payment for ecosystem services with Pakistani government officials and policy makers
Total	**6**	**3**	**5**	**5**	**7**
2. Transboundary Landscapes					
Kailash Landscape (KSLCDI)	**Studies on ecosystem services in Tibetan plateau** Baseline studies in each country pilot site for **livelihood value chains** **Waste study** for the Kora route of KSL in China **Value chain baselines in pilots** in China and Nepal and in pilot watersheds in India	**Gender assessment and integration concept**	**SMS service** for marginalised farmers in Uttarakhand, India **Cell phone-based information sharing mechanism** in China Community-**led total sanitation and solid waste management** in India **Allo processing center** in India	**Capacity building for integrated ecosystem management** in Nepal, India and China C**apacity building in honey-based value chains in** 14 villages in India Regional training in Bhutan pilot areas Training on **spring hydrogeology** in India and Nepal **Value chain trainings** in India and China Training on **South Asian Food and Beverage** in Lhasa **Community-led total sanitation** training in China	Support to Nepal's MoFSC for **developing Plant Resources and Medicinal and NTFP Development Board bills and an NTFP policy** Support to India's MoEFCC on the theme **'Regulating Tourism and Pilgrimage in the Himalaya'** **Governance for Sustaining Himalayan Ecosystem guidelines** **Responsible tourism guidelines** **Taskforce engaged by GoN to prepare National ABS bill** Draft **concept for institutional mechanism for interfacing transboundary**

					institutions
Total	**4**	**1**	**4**	**7**	**6**
Landscape Initiative for the Far Eastern Himalaya (HI-LIFE)	**Scenario planning exercise – ecosystem services**			**Integrated protected area management capacity strengthening event**	
Kangchenjunga Landscape (KLCDI)	**Regional cooperation framework**		**Country-level participatory ecosystem management planning** in Bhutan, India and Nepal		Contributing to **IUCN Best Practises Guidelines**
Karakoram-Pamir (KPLCDI/KPWLCDI) Wakhan-Pamir Landscape	**Baseline study assessing medicinal plant biodiversity** **Regional cooperation framework/plans** of action for China and Pakistan **Assessing watershed health**				Supporting the **Rangeland Policy** of Gilgit-Baltistan for the regional government
Regional REDD++ Himalaya	**Ecosystem level adaptation strategies and multi-scale DRR system** **Collecting forest carbon data** Two studies in Nepal in collaboration with UN-REDD		Community forests – establishment of a **community-managed Forest Carbon Trust Fund,** three watersheds in Nepal	**Measuring and monitoring forest carbon** South-south **learning platform**	Input to Nepal's **National REDD Strategy**
Total	**8**		**2**	**3**	**3**
3. River Basins					
Himalayan Adaptation, Water and Resilience (HI-AWARE)	S**ituational analysis** in all four river basins L**iterature review** into empirical-statistical downscaling methods Developed **historical climate data**		**Pilot Climate Smart Practices** in Indus **Pilot Heat Monitoring**	1 Seminar 1 Workshop 1 Training	
HKH Hydrological Cycle Observing System (HKH-HYCOS)	**EWS with a gender perspective** in Bangladesh, Bhutan, Nepal and Pakistan	**Web based flood information system** **Regional flood outlook** developed for Ganges and Brahmaputra basins	**Mekong Hycos** 38 **GTS stations** installed in Bangladesh, Bhutan, Nepal and Pakistan **Flood information systems** at national levels Installed **flood information**	Training in **flood management** for engineers, modellers **Flood outlook training** in Nepal **Training on streamgauging** **Regional flood outlook**	

			display boards in Nepal	**training**	
Koshi Basin Initiative (KBP)	Studies on **effects of river flows on aquatic ecology** Framework developed to identify **vulnerable sub-basins** Basin scale research to study "**Land Use and Land Cover Change and Erosion"** Applied research on **water and food insecurity** in India **Assessment of socioeconomic-livelihood promotion** and policy analysis Study on policies, programmes and institutions for **DRR** Action research on **high mountain land use change and erosion** Analysis **gender inequality** issues and best adaptation Practices on improving **water storage and water productivity**, food security and livelihood improvement in Nepal and India Field data collection household level in Bihar to help adapting agriculture to climate change Action research on **reviving drying springs** Study on impacts of **hydropower** projects Action research **local water use** Study relationship rainfall, groundwater recharge, spring water availability **Freshwater ecosystem assessment**	Koshi Basin Information System (KBIS) **knowledge sharing platform**	Pilot **disaster-smart communities** in Nepal Pilot Koshi **flood information system** **Upstream-downstream payment for ecosystem services** mechanism in one municipality	7 trainings – formal or on-the-job 1 workshop	Consultations with Bihar Government to support **flood disaster preparedness** Output on **landslide risk reduction planning** implemented by Tibet Autonomous Region

	Field survey **economic risk and vulnerability assessment** of GLOFs in 2 sites in Nepal Analysis relationship **sediment and hazard** Field based study on **gender equality and social inclusion and water management**				
Indus Basin Initiative	Station data analysis to generate **high resolution datasets for climate models**	Indus Basin **Knowledge Platform** (IBKP) **Manual for hydrological model SPHY**	Community-based **glacier monitoring and flood early warning system** Agricultural water, energy, and hazard management pilot	Training on SPHY model	Keynote address at the Government of Pakistan's Water summit
Water and Land Ecosystems Initiative (IWMI Ganges) WLE	Baseline survey on **vegetable cultivation** Situation analysis **springs** - field visits **Spring discharge monitoring, collecting rainfall data**		Four **solar powered irrigation pumps** (SPIP) installed	1 Training of Trainers on Spring water management 2 workshops (SPIPs and WUMP) 1 Training water collectors 1 Training SPIPs	
Total	**24**	**5**	**12**	**14**	**3**
4. Cryosphere & Atmosphere					
Atmosphere Initiative	Processing **data SusKat ABC** field research campaign Building **gridded emission inventories** Setting up atmospheric observatories and monitoring stations in Bhutan and Nepal Study of winter fog measurements: five country, 2 winter Assessment of existing emission inventories Study impacts of fan-assisted improved cooking stoves		Testing **fan-assisted improved cook stoves** in Makwanpur district, Nepal	Training **WRF-Chem atmospheric modelling system**	Contributing to GoNs 2000 **Sustainable Development Agenda** document Contribution to Nepal **Health Sector Strategy** document
Cryosphere Initiative	**Snow cover data analysis** Remote Sensing based **Glacier**	Web-based HKH Cryosphere **Knowledge Hub**		MSc programme Workshop Matlab	

	change analysis Insitu **glacier mass balance measurements** **Glacio-hydrological monitoring and scenario analysis** Bhutan and Nepal **Decadal glacier change analysis**, Bhutan Remote sensing based **glacier inventory** created **Time-series glacial lake database** (RS/GIS)			Study tour Norway Training in Glacier Mass Balance Measurement Training workshop Glacio-Hydrological Modelling Training on Glacier Water Resource Assessment &Monitoring in HKH WRF-Chem Training Workshop On-the-job training on use of MODIS data	
Total	**13**	**1**	**1**	**9**	**2**
5. MENRES Infor. Systems					
Regional Database Initiative (RDI)	**Time series land cover** for Bangladesh, Bhutan and Pakistan **Integrated data** from additional initiatives	Re-design, improved technology, enhanced user interface, visual tutorials Metadata management system re-designed Climage Change Information System for Upper Indus Basin	Installed MODIS receiving station	3 consultation workshops 1 technical workshop 2 Regional Training In-house training database management Training on database concepts 16 Training workshops	
SERVIR-Himalaya Initiative	**Developed various science applications** **Strengthened IT infrastructure** Nepal EQ 2015: **satellite image interpretation** for damage assessment	**Decision support toolbox** for protected area management Prototype **crowd sourcing application**	**Experimental flood early warning application** for Bangladesh **Forest fire monitoring system** with email alert operationalised in Bhutan	1 National workshop in Bangladesh Training of engineers, Bangladesh MyCOE Workshop/Training 1 regional workshop USFS 1 national training course 2 SERVIR AST project workshops 1 Consultation meeting 1 Programme knowledge sharing workshop 1 Regional Training MODIS 1 National Consultation workshop	**UN-WFP and MOAD of Nepal use SERVIR data** Data and tools used for **regular forest monitoring** in Nepal

Total	**5**	**5**	**3**	**16**	**2**
6. Himalayan University Con					
???	Developed mountain specific curricula			5 knowledge sharing workshops	
Overall number	**70**	**20**	**41**	**75**	**28**

ANNEX 6 - Programme activities and areas of thematic focus

ICIMOD Programme initiatives	***Thematic Focus and cross-cutting objectives within programme activities***					
	Livelihoods	**Water & Air**	**Ecosystem Services**	**Geospatial Solutions**	**Gender X-cutting**	**Governance X-cutting**
Adaptation to change						
HICAP (Sept 2011 to date) Key Implementing partners: ICIMOD, GRID-Arendal CICERO Funding: Sweden, Norway Regional Partners: 23 Global Partners: 4 Geographic extent: Upper Indus (Pakistan), Koshi (Nepal), Upper Brahmaputra (Tibet Autonomous Region, China), Eastern Brahmaputra (IND) Salween-Upper	- Livelihood surveys in Myanmar - Innovative adaptation-related strategies, policies and programmes - standardised VACA - EWS in Assam, India - Flood preparedness - PVA methodology - climate smart villages initiative - pilot in four villages in Koshi sub-basin, Nepal	- Water and Climate Atlas	- payments on ecosystem services - Ecosystem Assessment Framework - community co-management plans for wetlands and policy dialogue		- Innovative and gender-sensitive livelihood strategies pilot - - integrating gender in value chain analysis - gender-specific checklist and tools - Gender and migration action research	- policy dialogue - contributed to NAP and Nairobi Work Plan process of UNFCCC - contributed to the NAP for Asian Region - inputs provided to a policy task force on payment for ecosystem services in Nepal - supported Government of Gilgit Baltistan for their districts adaptation plan - discussions with the Government of Tripura, India, and the Government of Nepal on policy on payment of ecosystem services, with policy makers in Pakistan for adaptation

Mekong (CHN)						
Himalica (Jan 2013 to date) <u>Key Implementing partners:</u> ICIMOD <u>Funding Institution:</u> EU <u>Geographic extent:</u> HKH region	- Pilots implementing Mountain-specific (NAPAs, LAPAs) in five countries - local level CCA and development policy gap analysis in Nepal - case study community-based tourism - community level micro plans in Bhutan, Myanmar, Nepal - micro-plans: CCA and sustainable management of cardamom farming in Taplejung; - building household level adaptive capacity/community resilience in the Koshi and Upper Indus sub-basin - action research on pollination, migration, extension service on agriculture - Value chain analysis: tourism in Myanmar, horti-culture in Pakistan, ginger and bamboo in Myanmar - Destination Management Plan for		- ESA Framework to collect field data as a basis for ecosystem rehabilitation		- diversification of livelihoods and income enhancement opportunities - gender focus	- Technical expertise provided to Myanmar's Ecotourism Policy and Management Strategy - Pilot-Government-Community consultations - DMP Inlay region approach taken up by ministry in Bangladesh

	Inlay region, Myanmar - Assessments: land, water, gender and livelihood options to improve adaptive capacity - Pilots: vegetable and goat meat Value chains in Bhutan - PVA in Bhutan - water resource assessments - Pilot tourism Value Chain, Bangladesh					
AdaptHimal (2014 - date) <u>Key Implementing partners:</u> ICIMOD <u>Funding Institution:</u> IFAD <u>Geographic extent:</u> BGD, IND, MMR, NPL	- Assessments: stress tolerant rice varieties and non-paddy crops in Nepal - community-led seed banks - delineating poverty pockets & drivers - Tulsi value chain - Assessment: rural micro-enterprises by returnee migrants - PVA in India, Nepal - Fostering synergies: rural producers and off-farm sectors through remittances - Shifting cultivation - On-farm and				- Women farmers diversified and enhanced incomes: Tulsi value chain in Uttarakhand - Women farmers benefited in value chain projects	

	landscape level natural resource management, non-conventional energy and Value Chain development - Value chain: Perilla farming - Micro Hydro development in Meghalaya					
Transboundary Landscapes						
Kailash (KSLCDI) (2012 to date) Key Implementing partners: ICIMOD Funding Institution: DfID, BMZ-GIZ Geographic extent: CHN, IND, NPL	- Livelihood value chain surveys - marginalised farmers SMS service - Spring hydrogeology - Responsible tourism - Community-led total sanitation in KSL China pilots - Total sanitation and solid waste management in KSL India - Heritage tourism - Responsible tourism - Ecosystem management framework - Bhumiraj allo processing centre		- Country biodiversity management action plan - Key frameworks "Integrated Ecosystem Management" and "Long-term Environment and Socio-ecological Monitoring" endorsed by the country partners	- KSL Information System: spatial and non-spatial data available on a web portal	- Gender disaggregated data collected for Bhutan, Nepal, India - Gender assessment and integration concept - Gender integration planning - Capacity building jointly with Women Organizing for Change in Agriculture and Natural Resource Management (WOCAN)	- Biodiversity framework: all RMCs to implement Nagoya Protocol of the CBD - Valutation of cultural and sacredness of the KSL - Regional cooperation framework for transboundary landscape management - Inputs to MoEFCC, G-SHE guidelines - Responsible tourism guidelines - MOEFCC, India, developing Coordination Committee model and "Common Landscapes Steering Forum" mechanism - New forest policy, India - Recommendations to MOEFCC: human-

						wildlife conflict and green felling bans - AN Conservation Area Management Council and Management Plan endorsed by MoFSC - member of GoN task force to prepare National ABS bill - Cooperation with local governments of KSL China and TAAAS - input on heritage and responsible tourism - long-term tourism development plan for the region
Landscape Initiative for the Far Eastern Himalaya (HI-LIFE) Formerly known as: Brahmaputra-Salween (BSL) (2014 to date) <u>Funding:</u> ADA <u>Geographic Extent:</u>	- identification of livelihood options and sub-sectors, including potential for value chain and ecosystem development		- Ecosystem Management and 'Long-term Environmental and Socio-Ecological Monitoring' frameworks - national consultations on understanding ecosystem services perspectives and livelihood linkages - Scenario planning exercise - Ecosystem services in relation to future policy and resource management scenarios	- Using geospatial tools to visualise the flow of ecosystem services		- Regional implementation plan - Regional cooperation framework - Contributing to national conservation and development plans

Kangchenjunga (KLCDI) Partner Institutions: BTN, IND, NPL Funding: MacArthur Foundation, BMZ-GIZ, ADA Geographic Extent: NPL, Sikkim, parts of North Bengal, IND, BTN, Tibet Autonomous Region in CHN	- Baseline data collection, pilot site selection - Preparation of implementation plans, incl. scoping for livelihood interventions	- Country-level participatory Ecosystem Management planning in Bhutan, India, Nepal, - 'Long-term Environmental and Socio-Ecological Monitoring' frameworks				
Karakoram-Pamir (KPLCDI) Wakhan-Pamir Landscape (2013 -) Partners: AFG, CHN, PAK, TJK Funding: BMZ-GIZ, ADA Geographic Extent: China-Pakistan (‚Sino-Pak') border region of western HKH,	- Conservation and Development Strategy for China and Pakistan - scoping study in Afghanistan - Community-to-community exchanges for conservation and development strategy design - Responsible/eco tourism as an alternative livelihood	- Ecosystem Management' and 'Long-term Environmental and Socio-Ecological Monitoring' frameworks - Baseline selection - Macro-fauna and water quality and quantity - Assessment of floristic biodiversity - Checklist of flora and record of local people's traditional knowledge	- watershed health assessment	- Carbon stock assessment and mapping using geospatial techniques - map products - Medical plant inventory (GIS RS based)		- Rangeland Policy of Gilgit-Baltistan – cabinet of Khyber Pakhtunkhwa government - National Consultation workshops in Afghanistan, China, Pakistan identifying national priorities

plus Wakhan Corridor Landscape of Afghanistan		of important medicinal plants				
Regional REDD++ (2014-2018) <u>Funding:</u> BMUB/GIZ, Norwegian Ministry of Foreign Affairs <u>Geographic Extent:</u> BTN, IND, NPL, MMR Incentive-based mechanisms related to greenhouse gas emissions sequestration and biodiversity conservation at the landscape and regional scales	- Carbon offset and monitoring project with local communities	- Forest carbon data generated in Bhutan - Carbon stock assessment and biomass mapping	- Ecosystem level adaptation strategies	- mrv system framework using multi-scale geospatial systems and ground-based socioecological databases - Knowledge products - Local and regional-scale deforestation and degradation products using multi-sensor satellite data	- REDD: Gender inclusive approach	- South-south learning platform on REDD+ Safeguards
River Basins						
Koshi-Basin (KBP)	- Disaster-smart communities in Nepal - Assessing water vulnerability to identify vulnerable sub-basins - Assessing water	- Water availability, demand and infrastructure development - Water availability and	- Freshwater ecosystem services: freshwater ecosystem assessment and national expert and	- Real-time Flood information system - Water hazard analysis and mapping	- Gender-based vulnerability assessment - Gender-focused livelihood promotion - improving	- Consultations with key national and local policy-level stakeholders to facilitate research uptake and seek policy input - Survey and review

	productivity and water use efficiency - Water and food insecurity research - Social determinants of water productivity in selected sub-basins - Community based EWS - Reinforcing Social Development and Economic Growth in the Mid-hills in NPL;	demand estimation at sub-basin level for climate scenarios - Research on springs, storage towers and water conservation - Evaluation impacts of proposed development projects on hydropower generation and water storage - Approach for local water management - Stream power analysis;	stakeholder consultations facilitating an upstream-downstream payment for ecosystem services mechanism - Mapping of wetlands	- Koshi Basin Information System (KBIS)	local water availability and management - Ten priority areas for gender consideration in local water management - Research on CC impacts on the coping strategies of men and women - Study gender aspects water-management - Water use master planning exercises - challenges of gender equality	of vertical and horizontal integration of institutions in river basin management - Principles of IWRM, governance and indicators of governance - Assessment: governance institutions and environmental planning procedures for hydropower - Flood outlook output used by Bihar State DMA - Output on landslide risk reduction planning implemented by Chinese Authorities
Indus-Basin (IBI)	- Community-based glacier monitoring and flood EWS - Baseline survey 'Agricultural water, energy and hazard management in the Upper Indus Basin for improved livelihoods'			- Generating high resolution datasets for climate models - Data and information sharing through web based IBKB		- Basin-wide development improving local water use with communities and local administrative authorities – - Action research incorporated in local water use master plans in Nepal

HYCOS-Himalaya (2009 – 2015) Regional component of World Hydrological Cycle Observing System (WHYCOS), a global programme of the WMO				- Regional and national flood IS in Bangladesh, Bhutan, Nepal, Pakistan - Hydro meteorological networks upgraded to share real-time data and information	- Gender issues incorporated in the flood information system - study	
HI-AWARE <u>Geographic Extent:</u> Indus, Ganges, Brahmaputra river basins	PARC piloting of - Climate Smart Practices in Indus - Situational studies and field work in all four basins - Heat Monitoring Pilot				- Gender transformative approach to research and action	- linking institutional structures with livelihoods in transition, poverty traps, migration, vulnerabilities, and adaptation
Water, Land, and Ecosystem Ganges Special Project (2015 -) <u>Funding:</u> CGIAR RP on Water, Land and Ecosystems (WLE) <u>Geographic</u>	- Solar power irrigation pumps - Baseline survey - vegetable cultivation - Springs: Situation analysis discharge and rainfall monitoring activities					

Extent: Mid-hills of Uttarakhand, Terai, NPL						
Cryosphere and Atmosphere						
CMP Funding: Norwegian Ministry of Foreing Affairs		- Annual glacier mass balance monitoring at four glaciers - Glacio-hydrological modelling (TOPKAPI), - Mapping glacier changes during ablation season - Contribution of snow, glacier and groundwater to hydrological regime of upstream basins - Historical climate trends and variability - Cryosphere data collection - 'Glacier status in Nepal and decadal change from 1980 to 2010 based on Landsat data' - SnowAMP: field based snow monitoring		- MODIS data processing: eight-day composite of snow cover area - Cryosphere Knowledge Hub - RS based decadal glacial change analysis - advanced simulation model for Langtang catchment - Inventory RS-based glacier survey data for HKH region - Permafrost mapping of the HKH region - Time-series glacial lake database using GIS/RS for Koshi basin, Nepal and Bhutan Himalayas - Decadal glacial lake data for Bhutan	- 'gender integration' embedded in the cryosphere monitoring plan and programmes	- Cooperation with the Department of Hydro-Met Services Bhutan - MoU CAS - MoU IRD - DHM mandated with cryosphere monitoring in the Nepal Himalayas - Supporting DHMS Bhutan to establish a cryosphere monitoring programme in Bhutan
Atmosphere Sustainable		- Atmospheric measurements:		- Atmospheric data made available	- Emission impacts on women	- 2000 Sustainable Agenda document "Vision

Atmosphere for the Kathmandu Valley (SusKat-ABC) <u>Funding:</u> Governments of Norway and Sweden		aerosols, gases - Gridded emission inventories of pollutants - Air quality monitoring and data broadcasting system - Winter fog measurements - Nepal air quality monitoring plan - Brick technology and atmospheric research - Impacts fan-assisted improved cooking stoves - Brick kiln emissions - Observatories and air quality stations in Bhutan, Nepal		through ICIMOD's Regional Databases System	- Improved cooking stoves – local women groups - Gender and black carbon - Bricks and winter fog study includes gender and social issues	2030" with the National Planning Commission, Government of Nepal - Nepal Health Sector Strategy document with Ministry of Health and Population, Government of Nepal - Policy advocacy networks linking practitioners and policy makers on brick kiln emission
Mtn Environment Regional Information Systems						
SERVIR Himalaya (Phase 1: 2010 – 2015 Phase 2: 2015 - 2020) <u>Funding:</u> USAID	- Focus on agriculture, drought, rangelands, biomass estimation - Agriculture monitoring application - Drought monitoring methodology mainstreamed in other initiatives (e.g. Koshi, HICAP)		- Focus on forest vulnerability and ecosystem monitoring - Biomass estimation for REDD+ MRV at landscape level;	- New user interface, access to applications, tools and data - Drought monitoring, vulnerability of forest ecosystems, automated land cover monitoring, regular alerts on	- Guidelines on Gender and GIS - gender integration in the programme	- Crop monitoring products as part of WFP Food Security Bulletin: with Ministry of Agriculture Development (MOAD) and WFP - RMC's regional and national planning use Cropping pattern analysis - Nepal Dept. of Forest Research and

	- Digital Agriculture Atlas of Nepal - Biomass estimation on sub-national level in 20 districts in Nepal			forest fire, agriculture monitoring		Survey uses SERVIR data and tools for forest monitoring
Regional Database		- Snow water equivalent - Decadal glacier change in Bhutan visualisation	- Regional biodiversity conservation database	- FFIS - Two prototype information systems: Koshi River basin and DM for Nepal - Wireless sensor network for flash flood EWS - Experimental flood EWS using radar altimetry - MODIS receiving station - Time series land cover available in interactive mapping applications - Metadata Management System	- Gender roster database system operational - gender aspects in the science application on Forest Ecosystem Vulnerability in CHAL landscape - Gender and GIS framework developed	- DRR Portal of Ministry of Home Affairs in Nepal integrated ICIMOD's Disaster Information Management system - Land cover data adopted by national partners - Geospatial methodologies for forest biomass estimation up-scaled through ICIMOD's REDD initiative and Nepal REDD Cell for its monitoring, reporting and verification process; - Bhutan Geospatial Portal launched in partnership with the National Land Commission (NLC)
7. Himalayan University Consortium HUC						

Annex 7: Beneficiaries Summary

Overview of primary beneficiaries and related topics

Regional Programme	Primary beneficiaries	Types of benefits
RP-1 Adaptation to change	Union Government of Myanmar	Destination Management plan; Ecotourism Policy & Management Strategy; NAPA/LAPA implementation
	Farmers in Bhutan	Pilot vegetable and goat meat value chains
	Farmers in Myanmar, Nepal and Pakistan	Pilot climate smart value chains
	Tourism sector in Bangladesh	Development of tourism value chains
	Various partner organisations	CCA and value chains, micro planning, natural resource management, Integrated water and land management
	Population and government officials in various HKH countries	Several capacity building events, e.g.: Climate Change Adaptation, Adaptation to Change, Risk management, community-led micro-planning
	Government of India	State Adaptation plans
	Farmers in India, Bhutan and Myanmar	Value Chains for Tulsi, Perilla and pilots on shifting cultivations
	Population living in flood prone areas in Assam	Early warning system
	Farmers in Nepal	Climate smart water harvesting and agricultural cropping systems
	Government of Nepal	National Adaptation Programme Report on Labour Migration
	Government of Pakistan	Food policy document Capacity building in CCA
RP-2 Transboundary Landscapes	Farmers in India and China	SMS service/mobile phone-based information sharing mechanism
	Communities in India	Community-led total sanitation and solid waste management; Allo processing centre
	Governments of Nepal and India	Policy development: NTFP, Tourism, Ecosystem guidelines, National REDD strategy
	Farmers and government officials participating in training events in Nepal, India, China and Bhutan	Various capacity building activities
	Regional Government Gilgit-Baltistan	Rangeland Policy
	Population living in three watersheds in Nepal	Community-managed Forest Carbon Trust Fund
RP-3 River Basins	Population living in flood prone reaches of the Koshi basin	Flood information systems (web, display boards); Upstream-downstream payment for ecosystem services
	Engineers, modellers	Training in flood management
	Administration for Ganges and Brahmaputra basins	Regional flood outlook
	Tibet autonomous region	Landslide risk reduction planning
	Bihar regional government	Enhanced flood disaster preparedness
	Communities in Nepal	Pilot disaster-smart communities
	Communities in Indus Basin	Community-based glacier monitoring and flood early warning system; Solar powered irrigation pumps
RP-4 Cryosphere and	Government of Nepal	Contributions: Sustainable Development Agenda; Health Sector Strategy

Atmosphere	Communities in Makwanpur district, Nepal	Fan-assisted improved cook stoves
	Various	Web-based HKH Cryosphere Knowledge Hub
	Various	Training and capacity building
RP-5 Mountain Environment Regional Information System	Various	Training and capacity building
	Communities in Bangladesh	Flood early warning application
	Communities in Bhutan	Forest fire monitoring system
	Government of Nepal	Data and tools for forest monitoring
RP-6 Himalayan University Consortium	In the long-term students in the HKH region	33 full and 10 associate members from all 8 HKH countries developed a mountain-specific curriculum; survey of HKH universities
	11 HUC members	Seeds/mobility grants to build research and training partnerships; curricula development

Annex 8: MTR Recommendations and Follow-up

MTR Recommendation 1.1: "There is a need for ICIMOD to adjust its SF responding to changes in the context of its operations together with its governing and advisory bodies to clarify its vision and the strategic goals in this perspective, particularly regarding the importance the global community allocates to the HKH region as "third pole of the earth". This also concerns strategic choices regarding reviewing relationships with the RMCs, possible further growth of ICIMOD after the present phase of consolidation and whether it should become a centre of excellence in an alliance of excellence in knowledge generation and management only for the region or worldwide."

Implementation response: The relations with RMCs, the future growth of ICIMOD and potential development as a centre of excellence have not been explicitly addressed. Better integration with RMCs is a priority action of the SF. Although strategic partners have been given a greater role in implementation, ICIMOD could have developed this aspect even further. As a result, the relation of ICIMOD with players of worldwide significance may need further development. ICIMOD need to keep a focus on its regional character with an outreach towards the global community.

MTR Recommendation 1.2: "ICIMOD needs increased long term program funding on the account of short term project funding, in order to achieve the strategic goals. Program plans and implementation schedules should in general incorporate envisaged follow up, strategy application and up scaling processes to ensure that sufficient resources and time are allocated for these processes. This recommendation is linked to key issue 8."

Implementation response: The issue is the need to have longer term programming and secure funding for more complete implementation and follow-up as well as efforts at scaling up the results. Long term, scaled up results take time and funding to achieve. The core/special projects funding ratio was 45/55 in 1995 and is currently 40/60. Core funding sources are likely to decrease from the current levels. Progress on long term core funding is not apparent..

MTR Recommendation 3.1: "The BoG is invited to provide guidance to the ICIMOD management on how to best integrate the themes of global significance (linked to high mountains) in its responses to the portfolio of RMC priorities, which are relevant for the integrated mountain development agenda. The BoG may find it appropriate to adjust the SF accordingly in connection with development of the MTAP-III."

Implementation response: Global outreach was included in the new SRF and is probably one of the more conspicuous elements of ICIMOD's increased profile. More work could be done with respect to partnerships with global players and ICIMOD's contribution as regional centre for the HKH.

MTR Recommendation 4.1: "In RMCs where internal communication on ICIMOD affairs is perceived as a challenge, ICIMOD should recommend appointment of an ICIMOD co-ordination committee. ICIMOD should discuss the issue with relevant RMCs and offer assistance in establishing the respective committees, providing them with guidelines on procedures and schedules for planning, budgeting and for ICIMOD governing and advisory bodies meetings. Alternatively, or additionally, an annual "ICIMOD-day" may be arranged in RMCs where this is not yet instituted."

Implementation response: Focal points were set up in each country and an ICIMOD co-ordination Committee was established in China. 'ICIMOD days' have been successfully initiated in several

countries. The co-ordination with and the integration of the RMCs into ICIMOD's activities remains an issue at various scales. At strategic level, this involves the alignment of ICIMOD activities with country priorities. At the more operational level, the cooperation with RMCs could – in general - still be improved by a more intensive communication with the partners (namely sharing of information through ICIMOD). In particularly, relevant partners could be better integrated in the planning phase and the exchange of staff could be intensified at all hierarchical levels.

MTR Recommendation 4.2: "ICIMOD should continue the dialogue with the RMCs on: i) which steps to take in the two years to come to meet the stated objective of 50 % funding from RMCs for the core budget; ii) how to establish procedures for RMCs to fund specific regional programs; and iii) on the modalities to make the ICIMOD Foundation operational, a discussion that should also continue to involve the ISG. It is important that any changes in funding formulas do take care of the established equality in ownership of all the RMCs."

Implementation response: The current 2015 RMC contribution ($1.57 M) to total Core Income ($4.06 M) is almost 39 %.[1] The funding formula has followed the October 2012 Funding Strategy. Review of the strategy may be needed depending upon funding availability and gaps.

MTR Recommendation 4.3: "To deepen ownership and collaboration networks in the region ICIMOD should continue targeting joint ownership on products."

Implementation response: More emphasis on joint development and ownership with RMCs has occurred on many of the products; joint branding of products is apparent on most reports yet there are still some views that partners do not get sufficient recognition in the presentation of final outputs from collaboration.

MTR Recommendation 5.1: "The BoG should encourage ICIMOD Management to give even higher priority to responding to international and RMC demands for high quality integrated information and assessments in themes of global significance such as climate change, water resources, and biodiversity and to develop the skill profiles of its staff accordingly applying an open minded recruitment policy."

Implementation response: The development of HiMAP and the advances in ICIMOD's information and database management including the hydrological and flood and the air quality information systems, would suggest that a higher emphasis has been placed on integrated information and assessment. These systems are still under development and their applications for national decision support have still to be validated. Demand at international and RMC levels need to be better identified and documented in order to focus future activities. Skill profiles seem to be adequate although this has not been reviewed in detail.

MTR Recommendation 7.1: "In line with the recommended shift from project to program funding, monitoring and reporting requirements for individual projects should be simplified by the funding agencies. ICIMODs regular planning, monitoring, reporting and evaluation system and structure should in principle be used. Thus regular ICIMOD reports and audited accounts should suffice for funding agencies, which should only in exceptional cases be supplemented with specific reports if a particular program or project would merit this."

Implementation response: The M&E system has been greatly expanded in line with previous QQRs. Some effort has been made to identify core indicators at the outcome level, but the large number of indicators and the emphasis on output-related measures may not meet the needs of all users. Annual donor reviews and external evaluations provide useful supplementary information on performance. .

MTR Recommendation 8.1: "With reference to the EU assessment that ICIMOD operates in accordance with internationally accepted standards with regard to financial management, program (basket) funding should become the norm for organisations' funding of ICIMOD (in addition to at least 25 % of the core funding)."

Implementation response: Programme multi-donor joint (basket) funds is preferred by ICIMOD, but so far the financing strategies have not been able to attract donors to a combined fund. Joint contributions from two donors for specific activities has occurred but comprehensive packaging and marketing of funding opportunities had not occurred as recommended.

MTR Recommendation 8.2: "Long-term funding into the next MTAP-III 2013-17 should reflect the common but differentiated global responsibility for addressing issues of climate change and downstream implications on international water and ecosystem change. This move would require ICIMOD's activities to further integrate into an international tracking system for contributions on issues of global significance. This would supplement linking to research networks on system changes "above the timberline", tracking and analysing bilateral support and national contributions to individual RMCs in sectors of global significance."

Implementation response: It is not readily apparent what "an international tracking system for contributions on issues of global significance" would look like, although the M&E system has an array of indicators to track outputs and outcomes. This recommendation seems to highlight a lack of systematic and concentrated focus on the high profile, global concerns about ecosystem vulnerability, glacier and water resources changes, and geological, flooding and drought hazards in the region. It calls for a more structured approach to respond to knowledge demand for the HKH region at a global level and to develop strategies in support of a centre of excellence.

ANNEX 9: Response to QQR-5 Review Questions

1. ***Has ICIMOD addressed appropriately the priority actions for the region as outlined in the Strategic Results Framework (SRF)?***

The priority actions in the SRF included: (1) increased emphasis on the outcome, impact, and learning; (2) further efforts to engage RMCs on issues of regional importance; (3) ensuring that high-quality solution-oriented research and knowledge products are delivered with effective partnership arrangements; (4) significant improvement of communication and knowledge exchange within and outside the region; and (5) collaboration with strategic partners in the RMCs to deliver programmes.

ICIMOD has made substantive progress on these priorities. Further attention is needed on issues of regional importance, use and scale-up of the products, RMC liaison, policy dialogue and the strategic role of partners. The current programming approach is multi-faceted – six Regional Programmes, five thematic areas/services, cross-cutting objectives (gender, governance, inclusive development, private sector), ten topics of Centre-wide importance, and an array of programme and project-oriented activities roughly aligned as Initiatives under the Regional Programmes and smaller special projects. This organisational complexity reduces the clarity of focus on the primary results expected from ICIMOD's programmes.

The context for progress on these priorities is also important. ICIMOD staff recognizes that many of the expectations of change depend upon long term commitments and processes, partnership leveraging capabilities, investments beyond the scope of ICIMOD's programmes, or factors outside the reach of its initiatives. Some of the programme initiatives may over-promise and over-state results or sustainability potential within the MTAP cycle. It is not always clear, despite the impact pathways analysis and many excellent outputs, what realistic and sustainable end results are expected within the available budgets and time frames of an initiative.

2. ***What are all the significant achievements and factors that contributed to achieving the six strategic and six regional programme goals? Has ICIMOD's work contributed to strategic impacts (poverty reduction, reduced physical and social vulnerabilities, and improved ecosystem services?***

Various innovations have been developed, introduced, tested and demonstrated by ICIMOD and the implementing partners. The extent of replication and widespread adoption and the mechanisms for scale-up remain to be fully addressed. ICIMOD is recognized as a regional knowledge hub and database manager but these resources are sometimes viewed as under-utilized and, in some cases, RMC members feel that activities are insufficiently demand-oriented. To fully apply the information and knowledge, capacity development requires practical alignment with national efforts at strengthening the relevant institutions.

Impact on policies and practices is now being emphasized but the entry points and influence levers for dialogue often lie outside the technical arena and audience. ICIMOD has tried to draw out policy conclusions or implications, mostly at a local level, but various means of better connection to the policy processes at national, regional and transboundary levels are also needed. Regional

cooperation effects were also difficult for many stakeholders to gauge. Global outreach however has been a strong feature of ICIMOD.

Regional programme achievements (see Annex 4) are very briefly summarized as follows:

RP1-Adaptation to change: Substantial progress has been made toward achievement of results, ranging from knowledge generation, media outreach, strengthening governance mechanisms to innovative approaches for enhancing adaptive capacities and diversifying livelihood options in communities. Wider uptake of these results beyond local and national borders and the successful RMC integration and dissemination of strategies developed or supported by ICIMOD still needs to be shown.

RP2-Transboundary Landscapes: Achievements are marked by commitments to Regional Cooperation Frameworks (activity agendas), basic on-the-ground research and development actions. The main outputs relate to long term monitoring plans, ecosystem services research, valued-added livelihoods development, established working relationships, increased discussion of land management strategies and joint promotion of tourism and heritage. Despite these collaborative efforts, substantive transboundary coordination remains a long term goal, and funding limitations and maintaining commitment and interest are key determinants of progress.

RP3-River Basins: The programme has effectively concentrated on development and application of information systems for flood and drought management, hydrological and runoff modelling and forecasting tools, climate change scenarios and impact assessments, community based early warning systems and various methods for watershed, springshed and integrated water management. These have been substantial achievements, although many knowledge and capacity gaps remain and some agencies have not yet been able to fully use and operate the systems and facilities from the programme.

RP4-Cryosphere and Atmosphere: The Cryosphere initiative has been generating and disseminating updated data and knowledge on the cryosphere and technically supporting partner institutions, while the Atmosphere Initiative has started to develop air quality monitoring systems and to introduce innovative technologies. The overall assessment is very positive with a very high scientific level and some important success stories. However, the focus is on a few countries (mainly Nepal, partly Bhutan) rather than a regional approach.

RP5-Mountain Environment Regional Information System: Both SERVIR Himalaya and Regional Databases within MENRIS programme are important initiatives. The overall evaluation is very positive. The approach to make data and results openly accessible is a cornerstone in the role of ICIMOD as a knowledge hub for the region. Links to other space programs could be considered under SERVIR.

RP-6: Himalayan University Consortium: Gradual progress has been made involving 33 members and 10 associate members of the consortium.

3. ***What are the key challenges and obstacles that impede ICIMOD in achieving the strategic and regional programme goals?***

The QQR-5 interviews, group discussions and site visits highlighted some major factors affecting progress on the strategic and regional programme goals, including:

- **Capacity and reach of the implementing partners** – Progress has been particularly affected by the varying technical and management capabilities of the implementing partners, their established working relationships with other consortium or team members, and their connections and experience at interacting with government and community beneficiaries.
- **RMC engagement and communications** – The extent to which counterpart agencies of the member countries are aware of and engaged in implementation affects the level of national ownership. Some RMC officials perceive ICIMOD's programmes as short term activities, studies, events and publications, and are not aware of contributions to building national capacities. ICIMOD is known for research/technical assistance; less for capacity development.
- **Scaling-up and mainstreaming approaches** – The means of expanding best practices are still being developed.[1] Although results have contributed to some policies and planning, they are often unable to overcome barriers to wider mainstreaming into government systems and sector standards or practices. Outputs sometimes get stuck at the piloting phase, impact pathways may be too hypothetical and RMC scale-up strategies seldom well-executed, if at all.
- **Lack of multi-donor coordination** - ICIMOD is well positioned as an intergovernmental organization to identify and organize research and learning agendas in conjunction with RMCs and multilateral/bilateral development programmes that are addressing similar issues of climate change, water resources, disaster risks, livelihood diversification, biodiversity conservation, etc. But broader alliances currently depend on ad hoc partnership and funding opportunities rather than systematic regional processes for research and learning collaborations.
- **Importance of realistic parameters for transboundary cooperation** – The processes for joint research on transboundary issues, especially water resources development, are evolving. There have been benefits from exchange of studies and practices on issues that cross borders. Experience to date suggests that 'harmonized responses' may have limited potential, and that cooperation on 'non-extractive' activities (e.g., conservation, tourism) may have more potential. More progress can also be found in international cooperation to establish the scientific methodologies and protocols, and to identify knowledge gaps, priorities and technical principles on key topics.[1]

- **Short term activities and funding with high expectations of strategic results** – The many short term partnerships and projects, focussed on studies, technical assessment and orientation training often have limited scope for follow-up and long term sustainability. The approach to engaging short term partners in selective activities under restricted project funding agreements (as opposed to programme-based funding) constrains long term results.

4. ***Have the inclusive development priorities including gender been strategized and integrated sufficiently across ICIMOD's work?***

The efforts at inclusiveness and gender integration have been exceptional. Internal policies have been developed and gender issues are incorporated in the MTAP, women's leadership training workshops and other pro-active measures have been undertaken. Further tracking of progress and results is proposed.

5. ***To what extent has ICIMOD been able to implement the recommendations made by the MTR 2010?***

Except for Recommendations 1.2, 4.2 and 8.1, regarding the development of more secure funding arrangements and response to decline of core funding sources, the other seven recommendations have been effectively implemented. Funding strategies will need to diversify and adapt to realities facing the donor countries, which suggest less available bilateral funds, more demand for measurable results, and greater evidence of country ownership and accountability.

6. ***To what extent are the complementarities and synergies with respect to different donor funded programmes currently being implemented by ICIMOD as part of the strategic results framework?***

The regional programme themes provide a broad format for multiple donor contributions and for interactions across the RPs and across initiatives within RPs. ICIMOD has endeavored to promote coordinated and individual activities contributing to the outcomes specified in the RPs and in the Strategic Results Framework.[1] The thematic teams assist several initiatives at a time, further encouraging useful linkages. But the participants also acknowledge that (a) it is sometimes difficult to clearly relate different 'projects' (component activities) within an initiative, for example studies on gender and migration and assessment of climate change impacts, and (b) donor-funded activities and 'projects' tend to be implemented separately with imprecise links to the programme outcomes despite the best efforts of the SRF. The conclusion is that despite the significant efforts at promoting synergies, the individual components remain heavily focussed on separate outputs as a collection of related projects loosely aimed at general outcome-level results. Furthermore, programmatic donor frameworks are generally lacking to assist regional scale synergies.[1]

7. ***What are the comparative advantages of ICIMOD compared to other organizations working in the HKH region? Where has ICIMOD added the most value in terms of regional programmatic approach, themes, and partnership building?***

The comparative strengths of ICIMOD are well recognized, including the high quality of research on HKH issues, the mandate and convening power to organize discussions on key regional and transboundary issues, the development of regional data sets/databases and analytical methods suited to HKH region, and the central clearinghouse/repository of documents, data and expertise on these issues. The primary value-added is in technical leadership on analytical methods and solutions to the key issues that address national needs along with a regional or transboundary perspective.

8. ***Is ICIMOD effectively measuring its results and outcomes? Has it developed an effective M&E system which can serve the need for accountability and learning?***

ICIMOD has greatly improved the monitoring, reporting and impact assessment processes. Detailed indicators provide a snapshot of progress toward targets and online reporting has made for better monitoring of progress. The Participatory Impact Pathways Analysis process is a significant contribution to programme planning and M&E practice. Some questions remain: a) whether the outcome statements provide enough clarity about expected end results and the basis for qualitative self-rating of progress toward an end state; b) how to ensure reliable reporting on actual progress (partners present only a positive report on implementation); and c) whether more simplified information and especially summary reporting on regional and country results can be provided as requested by some partners.

9. Have internal systems and governance mechanisms been supportive to deliver results (finance, KMC, partnership).

The management structure and operational processes have been generally effective at responding to the rapid growth in programme activities, unforeseen events, and in the shift toward knowledge-based action. The automation of financial and reporting systems has made a significant difference in the general efficiency of management. ICIMOD has a very well structured and organised approach to operational management with progressive practices. Work planning may need to be customized to better suit some of the partnership agreements and client needs. The governance system should improve RMC communication channels, and input from donors on use of the core funding. Programme information, despite the high quality outputs, does not always reach the right stakeholder audiences. Further efforts are needed to expand participatory *theory of change* design processes[1], to engage RMC Board members in selected programme activities[1], and to execute and raise the profile of the "Knowledge to Use" framework inside and outside the organisation.

10. Has ICIMOD been able to adequately strengthen and engage strategically with the key stakeholders?

ICIMOD has demonstrated strong leadership in developing the partnerships approach and training staff in working with partners. Over 200 partners were engaged in the programme in the past three years, and 475 training and awareness raising events held with more than 15,000 individuals, enabling ICIMOD's programme reach in a way that would not have been otherwise possible. The implementing partners note that their ICIMOD collaboration has also assisted in raising their abilities to engage grassroots organisations and to contribute to knowledge at a higher level. The emphasis on strategic partnerships with senior research-oriented organisations to lead action on key issues has so far shown mixed results on policy influence, and capacity benefits to RMCs may be relatively narrow or short term. While there is great support for ICIMOD, a perception still persists within some RMCs and stakeholders that the research/piloting activities do not lead very far beyond the output and site level.

11. Has ICIMOD's work contributed to regional cooperation between RMCs and other actors? To what extent has this been possible?

The advances in regional cooperation have been important but mostly limited to modest gains in relation to awareness raising about common issues, agreements on the ICIMOD programme, exchange of research and field experiences, flood warning communications, conformance with

international conventions (e.g., UNCBD), etc. The contributions at regional scale include discussions on analytical methodologies, regional climate change and hydrological models and assessment, landscape conservation and livelihood strategies, understanding GLOF risks/mitigation and basin-wide information systems and other similar outputs. Improved cooperation is viewed in very general terms. A common feature is the focus on basic technical information, inventory and analysis.

12. Has ICIMOD been effective in terms of policy influence and capacity building, particularly with regard to RMCs? How can it be improved, if necessary?

The ability to influence policy and the capacity of RMCs remains a major challenge. Policy-related effects are reflected, for example, in innovations incorporated in development plans, inputs to rangeland management (China) and food security (Pakistan) policies, endorsement of agricultural and water efficiency technologies, *yarsaguma* harvesting rules and brick kiln design standards. Research and piloting activities are often followed by short term training and awareness-raising, and then a process described as "sharing results, transferring technologies or hand over of findings and facilities". Capacity development (usually brief training) is tagged-on to the main delivery of outputs rather than treated as a core outcome. The capacity to utilize innovations may depend on long term processes involving government reform and organisational and market development beyond the usual expertise of ICIMOD staff. The context for contributions toward long term capacity development needs to be fully considered in consultation with RMCs and other donors.