IHCAP Phase 2 Review

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Acronyms

3SCA	Strengthening State Strategies for Climate Adaptation
ACWADAM	Advanced Centre for Water Resources Development and Management, Pune
CMS	Centre for Media Studies
DEST	Department of Environment, Science and Technology, Himachal Pradesh
DPR	Detailed Project Reports
DRR	Disaster Risk Reduction
DST	Department of Science and Technology, Government of India
ESD	Education for Sustainable Development
ESV	Essential Climate Variables
GLOF	Glacial Lake Outburst Flood
GPCCE	Global Programme Climate Change and Environment
GTN-P	Global Terrestrial Network for Permafrost
HKH	Hindu Kush Himalayas
ICIMOD	International Centre for Integrated Mountain Development
IHCAP	Indian Himalayas Climate Adaptation Programme
IHR	Indian Himalayan Region
IISc	Indian Institute of Science Bengaluru
IIT Guwahati	Indian Institute of Technology Guwahati
IIT Mandi	Indian Institute of Technology Mandi
IMD	India Meteorological Department
IMI	Integrated Mountain Initiative
IPCC	Intergovernmental Panel on Climate Change
JSC	Joint Steering Committee
JWG	Joint Working Group
MoEFCC	Ministry of Environment, Forest and Climate Change
NABARD	National Bank for Agriculture and Rural Development
NABCONS	NABARD Consultancy Services
NAPCC	National Action Plan on Climate Change
NDCs	Nationally Determined Contributions
NDMA	National Disaster Management Authority
NMSHE	National Mission for Sustaining the Himalayan Ecosystem
PERMOS	Swiss Permafrost Monitoring Network
PMU	Programme Management Unit
SAPCC	State Action Plan on Climate Change
SCCCs	State Climate Change Cells
SDC	Swiss Agency for Development and Cooperation
SMDS	Sustainable Mountain Development Summit
TERI SAS	TERI School of Advanced Studies
UNFCCC	United Nations Framework Convention on Climate Change

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1 Introduction

1.1 Programme background

The Swiss Agency for Development and Cooperation (SDC) under its Global Programme Climate Change and Environment (GPCCE) and in partnership with India's Department of Science and Technology (DST) initiated the Indian Himalayas Climate Adaptation Programme (IHCAP) in 2012, supporting the National Mission for Sustaining Himalayan Ecosystem (NMSHE) (Annex 2: P1). IHCAP is embedded in a global context where mountains have been recognized as regions most vulnerable to climate change, with focus on the Indian Himalayan Region (IHR). IHCAP aims to contribute to strengthening climate science and capacities for climate change adaptation planning in the IHR. The programme went through a first phase from 2012 to 2015, followed by a second phase from 2016 to 2019. The review of IHCAP phase 1 emphasized the contribution to strengthening science-policy practice and building good networks and trust, highlighting its importance as basis for IHCAP phase 2. Specific recommendations were provided for IHCAP phase 2, resulting in the decisions to out-scale capacity building and research activities to all 12 Indian Himalayan states and to mobilize funds from India's NMSHE, institutionalizing activities for sustainability beyond the project cycle, and changes in the organisational structure. The three outcomes of IHCAP phase 2 include increased knowledge on impacts of and vulnerability to climate change of the Himalayan socio-ecological system, enhanced capacities of academic and public institutions to address climate change in the IHR, and increased awareness with informed policymakers and through disseminated knowledge. The external Review of IHCAP phase 2 assessed the overall performance of the programme, draw lessons from the implementation of activities, and provides recommendations for future projects on climate change adaptation in the Himalayas and beyond.

1.2 Programme organisation, outcomes and outputs

IHCAP worked at the national and sub national levels in India with the overall goal that 'the resilience of vulnerable communities in the Himalayas is strengthened; knowledge and capacities of research institutions, communities, decision-makers and implementers are enhanced'. This programme in its articulation of the outcomes, responded to Government of India's demand (as envisaged under NMSHE and India's Nationally Determined Contributions) for bi-lateral collaboration to promote climate resilient development in the IHR. IHCAP was coordinated by a Programme Management Unit (PMU) comprising of a team based in India and supported by a number of implementing partners, including some Swiss experts and institutions. At the state government level, were feasible, the coordination was done through the State Climate Change Cells (SCCCs) which were established with support under NMSHE. SDC's total financial outlay for IHCAP phase 2 is CHF 3.50 million, which includes funds for activities undertaken in India and for Swiss experts. A Joint Working Group (JWG) and a Joint Steering Committee (JSC) were established. While the JWG was meant for review and guidance for the Indo-Swiss collaborative research component, the JSC has the broader role of reviewing and guiding the IHCAP phase 2 implementation. While the JWG had a panel of independent researchers from India and Switzerland, the JSC comprises of representatives from DST, SDC and other ministries of the Government of India such as the Ministry of Earth Sciences and the Ministry of Environment, Forest and Climate Change.

The specific Outcomes and Outputs of IHCAP phase 2 are as follows:

Outcome 1: Knowledge increased on impacts of and vulnerability to climate change of the Himalayan socio-ecological system

Important elements of this outcome entail collaborative research and knowledge sharing on climate change hazards, impact, vulnerability and risks assessment and adaptation between institutions at national, regional and global levels.

Outputs:

1.1 Collaborative research studies between Swiss and Indian institutions on climate change impacts, vulnerability, risks & hazards assessment and adaptation in IHR are implemented

1.2 Scientific and knowledge sharing workshops on climate change impact, vulnerability, risks & hazards assessment and adaptation supported

Outcome 2: Capacities of academic and public institutions to address climate change in the Indian Himalayan Region are enhanced

Accordingly, this outcome envisages strengthening State level processes for integrating science in to climate adaptation planning and later implementing climate change adaptation measures by building capacities, facilitate access to finance for adaptation projects and demonstrate science-policy practice.

Outputs:

2.1 Indo-Swiss Capacity Building Programme on Himalayan Glaciology and related areas institutionalized in select Indian Universities and Institutes

2.2 Climate adaptation measures for Kullu district developed, documented and shared

2.3 Training programmes to build human and institutional capacity on climate science and integration for adaptation planning in the Himalayan States conducted

2.4 Development of fundable climate change action projects in Himalayan States supported

Outcome 3: Awareness is increased, policymakers are informed and knowledge is disseminated in Indian Himalayan Region, Hindu Kush Himalayas and beyond.

It focuses on sharing new knowledge, understanding and experiences at national, regional and global levels to bridge the knowledge and science-policy-practice deficit.

Outputs

3.1 Multi-stakeholder platforms for exchange of knowledge, policy planning and reporting on climate change in IHR strengthened

3.2 Knowledge from IHR connected to regional and global science-policy platforms

1.3 Review objectives

The objective of the review was to assess the overall performance of the IHCAP phase 2, including the impact, outcomes, outputs, partnerships, processes, and results of scaling-up (replication or broadening the scope of engagement) and provide recommendations for a potential new project.

The review also provides insights into the effectiveness and efficiency of results, relevance and sustainability of the programme, together with lessons learnt and experiences gained in promoting:

- scientific understanding in the field of climate change impacts assessment and adaptation at the regional level
- capacity building in glaciology, spring-shed management and related areas at the regional level
- institutional strengthening of capacities on adaptation planning and implementation and raising public awareness at sub-national level across the 12 Himalayan States
- facilitating policy dialogues among Himalayan States, at the national level and outreach for knowledge sharing at the regional and global level

1.4 Scope of review

The main purpose of the review was to take stock and learn from the implementation of activities from the second phase of IHCAP. The review was based on the set of criteria prescribed by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD): Context/ relevance, outcomes/ impacts, effectiveness and efficiency of strategy, sustainability. The review also provides recommendations/guidance/orientation for a new project on climate change adaptation in Himalayas under consideration at SDC.

Context/Relevance

- Relevance of strengthening capacities at national and sub-national level in climate science (specifically glaciology and related areas), adaptation planning and implementation at sub-national level in IHR in the context of India's national policies and programmes.
- Relevance of the strategy and approach followed under the project with reference to the Government of India policy and GPCCE goals and objectives.

Outcomes/Impacts

- Assessment of the overall achievements (accountability) of the project in terms of the outcomes/impact and outreach, at the level of project stakeholders.

Effectiveness and Efficiency of Strategy

- Effectiveness and efficiency of the project to address needs (capacity building, institutional strengthening, etc.) of the target groups of the project in identification, prioritization and implementation of the action.

Sustainability

- Assessment of the project in terms of its sustainability and potential for up-scaling and replicability.

Recommendations for new project on climate change in mountains

- Thematic focus areas that need to be strengthened for development cooperation and long-term sustainability. Thematic areas where Swiss expertise may add value in mountain related issues.
- Form and structure of implementation approach, advantages and disadvantages of management structure, and interaction with partners and stakeholders.
- Geographical scope: Focus new project work in all 12 Indian Himalayan states or lesser number of states. Levels of intervention (state, national, regional across Hindu Kush Himalayan Region). Knowledge sharing and cooperation both regionally and globally.

2 Methodology

During the desk research, the review team gained an overview of the programme and key documents. The documents provided by the IHCAP PMU included the project document, reports, minutes, as well as key products from the programme activities such as websites, fact sheets and reports, as well as knowledge products (see Annex 2). In a first step the team read the management documents from IHCAP phase 2, including the project document, log frame and annual reports 2016 – 2018, and identified the goal and objectives, indicators, key partners, stakeholders and beneficiaries for interviews. In a second step, the team analysed documents against the log frame, and collected evaluation questions using the criteria prescribed by OECD.

First interviews were held with implementing partners in Switzerland (see Annex 3). During the mission in India, the review team met the GPCCE, SDC and the PMU of IHCAP in Delhi. Thereafter, the review team met with Indian and regional implementing partners, key governmental partners, stakeholders and beneficiaries in person or by teleconference, held discussions and conducted interviews. The interviewed organisations included Indian governmental organization on national and state level, intergovernmental and non-governmental organisations, academic institutions and independent individuals. In India and Switzerland, a total of 27 interviews with about 50 interviewees were held between 1 April and 2 May 2019 (Annex 3). The appreciation of open and honest responses, as well as objectivity of the reviewers was emphasized, with the goal to identify successful activities and results, gaps and challenges and how they were dealt with, lessons learnt and recommendations for future projects. The first version of the report was drafted by the review team leader with input from the entire review team. After receiving feedback from SDC the team leader revised the report.

3 Review

The overall goal of IHCAP is to strengthen the resilience of vulnerable communities in the Himalayas and to enhance the knowledge and capacities of research institutions, communities, decision-makers and implementers has been achieved. The idea to engage with the Himalayan region on the aspect of capacity building around climate adaptation was timely and remains valid.

3.1 Context and relevance

IHCAP phase 2 builds on the experience of IHCAP phase 1, is well embedded in the national context and is very relevant for the national and state governments, as well as for academic institutions and non-governmental organisations. The programme has been launched in partnership with DST with the aim to contribute to NMSHE to strengthen climate science and capacities for climate change adaptation planning in IHR on national level. IHCAP phase 2 addresses also the demands from the state governments for capacity building and technical support to prepare adaptation projects, which is essential for the implementation of the State Action Plans on Climate Change (SAPCC). The demands were based on the need for new knowledge on climate science, availability and access to data and information, increased capacity at sub-national level and efficient science-policy-practise connect.

The individual programme components are designed adequately to achieve the objectives, addressing various aspects and involving a large range of mostly very suitable partners, resulting in an overall large and complex programme with some lack of cohesion. The programme components address to various degree climate science, capacity building, knowledge exchange and science-policy-practice connect. A more streamlined and focused design of the programme would have been beneficial.

In **Outcome 1** IHCAP's aim was to shift the science capacity building from individuals to institutions through research collaborations and science dialogues. Through this, IHCAP aimed to help closing the knowledge gaps on impact of climate change in the IHR, contributing to NMSHE in collaboration with

DST. The capacity building and knowledge generation in the field of climate science through research collaboration is very relevant, which was also emphasized by various stakeholders. Even though the taken approach seemed valid, the Indo-Swiss collaborative research and knowledge sharing in climate science related projects could not be established (Annex 2: P4, P8). As suitable alternative strategy, SDC engaged the International Centre for Integrated Mountain Development (ICIMOD) with a mandate to involve Swiss researchers to support ICIMOD's Himalaya University Consortium (HUC) Initiative in knowledge building and networking activities in the Hindu Kush Himalaya (HKH) region. The capacity building by HUC and partners is very relevant regarding the topics as well as given the need for academic capacity building (Annex 2: 1.1a, 1.1b). The HUC Academy in particular has a strong potential to build institutional capacity.

IHCAP engaged the Advanced Centre for Water Resources Development and Management (ACWADAM) to coordinate activities on spring-shed management and spring rejuvenation in the IHR. These activities are directly embedded in a science-policy relevant context because they build on the recommendations of the NITI Aayog's (policy think tank of the Government of India) Working Group on Himalayan Springs, which was supported by IHCAP (Annex 2: P4, P5). The activities included state and national level workshops, a write-shop, scientific articles, writing of the report 'Inventory and Revival of Springs in the Himalayas for Water Security' and summary thereof for NITI Aayog (Annex 2: 1.2a/3.2a, 1.2b/3.2b). Science-policy interface initiatives led the Chief Minister of Arunachal Pradesh announcing the setup of an Advisory Council on Climate Change with climate change experts as members. Also, India's Parliamentary Standing Committee on Water Resources took note of the impact of climate change on glaciers and the resulting impact on water security.

In **Outcome 2** IHCAP strengthened academic and public institutions at state level in the IHR to integrate science in climate adaptation planning and implementation. It contributed to the goals of NMSHE to develop sustainable capacity to assess the Himalaya's status and enable policy bodies in their policy-formulation functions and implementation actions (Annex 2: P12).

The institutionalization of the glaciology curriculum is relevant because the cryosphere is important for the IHR and people downstream, but only limited knowledge and capacity is available (Annex 2: 2.1/2.2). The research work in Kullu District resulted in a report and science briefs to inform and generate awareness amongst various key policy makers, and highlighted the importance of the region and socio-ecological changes, which are evident (Annex 2: 2e, 2f, 2g, 2h). Awareness was raised for permafrost and glacial lake outburst floods (GLOF) and their possible environmental impact and hazard potential (IHCAP, 2016; Annex 2: 2.1/2.2). Very relevant are the three funding proposals developed under IHCAP, which demonstrate science-based adaptation planning. The proposals are based on the research in Kullu District, and have been submitted as detailed project reports (DPR) to the Ministry of Environment, Forest and Climate Change (MoEFCC) for evaluation (Annex 2: 2.2a, 2.2b, 2.2c, 2.2d).

Given the priority of mountains for climate change adaptions, the trainings on adaptation planning and implementation for state government officials in all 12 Himalayan states was very relevant. The state governments have limited resources for capacity building and IHCAP was able to bridge this gap. The multi-level trainings were organized by NABCONS in coordination with the SCCCs of the Himalayan States, and designed based on needs assessments. Of high relevance is also the capacity building on vulnerability and risk assessment for the SCCCs and other relevant departments of all 12 Indian Himalayan states (Annex2: 2.3a). The trainings resulted in the much-appreciated publication of the vulnerability and risk profiles of all states and districts in the IHR, using a standardized common framework (Annex 2: 2.3b, 2.3c). The trainings were conducted by the Indian Institutes of Technology (IIT) Guwahati and Mandi, and the Indian Institute of Science (IISc) Bangalore.

In **Outcome 3**, the media trainings conducted by the Centre for Media Studies (CMS) were relevant in sensitizing journalists and mass media students for climate related issues, and to inform the public through the published articles. Multi-stakeholder platforms were relevant to promote dialogue and engagement on sustainable development in the Himalayas (Annex 2: P3, P4, P5).

3.2 Effectiveness and efficiency of strategy

The idea to support and facilitate the implementation of NMSHE as technical and knowledge partner, based on the demand of the Government of India is an effective strategy to achieve relevant outcomes. The programme was effective in largely achieving the objectives, except for the Indian-Swiss research collaboration with knowledge gain and capacity building. Accomplishments contributing to achieve the objectives included the various capacity building programmes on academic and state level, the publication of the vulnerability and risk profiles of the IHR states, published new articles, and knowledge sharing and science-policy events. Especially the trainings on adaptation planning and VRA increased the capacity of the state governments and contribute to an improved governance, and ultimately to a reduction of vulnerabilities. The programme didn't plan nor had any gender-specific results. For some trainings, the diversity, inclusion and gender-balance of participants was promoted.

The information available on the programme's budget is limited. However, the strategy included suitable cost sharing with DST for some programme components. Additionally, the programme managed to leverage funds from NMSHE (Annex 2: 2.3d/2.3c). The majority of activities were planned and carried out timely, except for few training and meeting events which were delayed at the time of the review. For the Indian-Swiss research collaboration, time and effort was invested, which didn't yield results.

The individual programme components were effectively designed under the umbrella of climate change adaptation. However, the programme components operated largely as independent entities with some lack of cohesion. Reasons might be the limited link between programme topics, the large variety of involved partners and the communication strategy that didn't foresee interactions between programme components. The programme may would have benefited from a more focused and streamlined approach, utilising synergies between the programme components.

The programme is large and complex, involving many stakeholders and requiring a fair amount of coordination and communication. The PMU handled this big task remarkably efficient, and may would have benefitted from a simpler programme or expanded team (Annex 2: P5). Communication was handled well, but interactions with interviewees indicated few communication gaps. The reasons might be that tasks were delegated to consultants, and the sheer number of stakeholders involved in the programme which limited personal interactions and development of working relationships.

The strategy of the Indian-Swiss collaborative research in **Outcome 1**, choice for research topics, and planned cost sharing between SDC and DST seemed effective, but was not implemented [Annex 2: P6, P7, P8]. The alternative strategy of SDC to engage HUC ICIMOD was suitable, although focused on capacity building with training course rather around research collaboration. The design of the HUC Academy was effective and applied principles of education for sustainable development (ESD) and resulted in a successful course. For the Focus Grants, a needs assessment was conducted to effectively support the grant fellows. Mainly due to time constraints expectations were fulfilled only to limited degree. The collaboration of ACWADAM and partners was very effective and resulted in research findings with policy impact. IHCAP helped to overcome barriers and promoted the collaboration with research organisations, and as result data and information was systematically collected. The science

dialog on spring-shed management was very effective on the level of science, policy and communities, leading to the inclusion of the findings in the NITI Aayog report and summary with policy impact.

In **Outcome 2**, it was an effective and efficient strategy to integrate the glaciology course in the university curricula to institutionalise capacity building on these topics. The Teacher-Teacher Workshop was successful and could have been even more effective with a longer course duration and more hands-on trainings.

The research work in Kullu District on permafrost was linked with capacity building as well as awareness raising with the state government, which was an effective strategy for both capacity building and awareness raising. The good cooperation with the state government, local communities, community leaders, and the consultancy company CTRAN helped in an effective approach to conduct research, facilitate workshops and generate knowledge. However, the limited data availability and access to the field sites made the work less effective.

The science informing adaptation activities were largely effective. IISc Bangalore identified regional academic institutions (IIT Guwahati and IIT Mandi) to conduct the trainings, which increased its reach to provide vulnerability and risk trainings and ease of access to participants in the IHR. Due to their existing brand value the institutions brought forth a sense of credibility to the training. Collaboration amongst the three institutions was effective in achieving the intended outcome. The vulnerability and risk assessment trainings were well designed, using a common framework (Annex 2: 2.3a). The workshops were customised to the skills, background and state specific issues which helped to generate awareness and create relevance to the participants. In the training, state owned information was processed, resulting in an assessment report on climate vulnerability in the states of the IHR (Annex 2: 2.3b).

The adaptation planning trainings managed to gain sufficient traction with the state departments, and link them to their ongoing programmes (Annex 2: 2.3d/3.1c). The states felt ownership for the report, except in a couple of cases where state governments wished more interactions and discussions with the PMU and implementing partners. The joint dissemination workshops have enabled the eastern and northern states to come together and network. NABCONS as implementing partner of the adaptation trainings has a presence across all the states, which helped in reaching out to the state governments. A training needs assessment was effective to plan and design the training programmes. The proactive state climate change cells benefitted most from the programme.

In the second phase of IHCAP, the focus was to out scale the activities to all 12 states of the IHR. Consequently, the direct interactions of the PMU with the state governments were less than in IHCAP phase 1, which was regretted by some interviewed stakeholders. In some cases, state governments had expectations beyond the scope of IHCAP phase 2, indicating ineffective communication for specific issues, which would have required more interaction.

The media training in **outcome 3** brought journalists together with scientists, policy makers and civil society, which is an effective strategy to utilize the scientific information, uptake policy relevant information and interact with the civil society to disseminate information via media articles (Annex 2: 2.3d/3.1c).

The Integrated Mountain Initiative (IMI) indicated their strategy to use trajectories for planning meetings such as the Sustainable Mountain Development Summit (SMDS) and take the findings forward in legislator meetings, which inform subsequent events and interactions to influence sustainable development actions. Regional and global science-policy platforms were used to

disseminate newly gained knowledge. However, the state, national, regional and global science-policy platforms offer little tangible evidence for the efficiency in achieving the planned outcomes.

3.3 Outcomes and Impacts

The programme outputs and outcomes contributed to and had major impact for NMSHE, which is one of the primary policy tools of the Government of India. IHCAP for its size has made impact and got significant media coverage on the IHR because of its focused approach. Also, DST through this programme was able to go beyond their usual approach and invest in capacity building. Working on national level across all 12 Indian Himalayan Region has been a unique dimension of this programme. The outputs and outcomes of the programme include increased knowledge, data and information available on vulnerabilities and risks, water security and other topics related to climate change adaptation (e.g. Annex 2: 1.2a/2.3a, 2.2e-h, 2.3b). Information was injected in a range of web data portals (Annex 2: P11, 2.1, 2.3c). Capacity built on individual and institutional level impact the orientation and quality of research, adaptation measures on state and district level, as well as quality and quantity of news on climate change related topics (e.g. Annex 2: P3-5, P13, 2a-c). Various documents and manuals were produced for the capacity building programmes, which serve as reference and support the potential continuation of trainings (e.g. Annex 2: 2.1, 3.1a, 3.1b). Several of the activities have impact on policy level and contributed to a better-informed government and public.

In **outcome 1**, increased knowledge on spring-shed water management in IHR is currently available through documentations, policy briefs and on ground implementation. IHCAP had an impact on influencing key national policy making organization such as NITI Aayog to include spring water-shed management in addition to water-shed management as priority intervention (Annex 2: 1.2a/3.2a, 1.2b/3.2b). There are currently more trained people in the area of glaciology and spring-shed water management since the beginning of IHCAP phase 2. Even tough, the Indian-Swiss research collaboration and knowledge generation were not carried out as planned, the alternative capacity building activities were successful. The HUC-IHCAP Glaciology training led to other activities beyond IHCAP, for example a training in Bhutan for a Teach the Teacher Workshop in combination with a glaciology training in May 2019, as well as continued collaboration of University of Fribourg and the Karakoram International University.

In **outcome 2**, state governments were empowered in the process of vulnerability and risk assessment. This created a sense of ownership amongst the key stakeholders in using the findings in developing adaptation plans. The trainings contributed to institutional capacity building of governmental organisations, in particular the SCCCs, and the workshops and events formed a platform that promoted interactions amongst different state governments, multiple departments and other stakeholders. The climate vulnerability assessment report informed SAPCCs, provides a useful resource on state level and has generated interest amongst stakeholders especially DST to conduct similar assessment at the national level. The states are using the vulnerability assessment in their State action plan for climate change to inform adaptation actions. Besides this, in some state governments the climate information and facts helped in successfully sensitising the line department and climate change cells were able to work together with the line departments. Various training manuals were developed for the adaptation planning as well as vulnerability and risk assessment. Write shops were effective in informing people on how to write proposals which are innovative and identify relevant thematic elements thereby aiding in securing external funding. The strategies and design of the vulnerability and risk assessment training, media training and media fellowship were successful, leading other donor agencies to take up the actions. Support to the State of Manipur resulted in a revised SAPCC (Annex 2: 2.4). Institutional capacity was built at Kashmir University that implemented the glaciology curriculum and have already trained 45 students in that course. From the research

activities in the Kullu District, good knowledge products were produced, including science briefs, adaptation proposals and a synthesis report (Annex 2: 2.2a-h, IHCAP, 2016). However, decisions on the adaptation proposals were pending at the time of the review.

In **outcome 3**, a range of international events were supported by IHCAP for the purpose of knowledge sharing and shaping policies. At national and state level conferences and workshops knowledge was disseminated and networking promoted. Science-policy initiatives have led the Chief Minister of Arunachal Pradesh announce the setup of an Advisory Council on Climate Change with climate change experts as members. India's Parliamentary Standing Committee on Water Resources took note of the impact of climate change on glaciers and the resulting impact on water security.

However, several of the planned activities for the state and national multi-stakeholder dialogue were at the time of the review yet to be executed by the implementing partner. The implementing partner planned to update their webpage with a portal to serve as information platform to promote the outcomes of IHCAP, but the same has not yet been implemented. Various events were supported by IHCAP which were documented and the evidence of the same were presented to the review committee. Unfortunately, many of the stakeholders were unaware of these events indicating lack of communication and coordination between the partner agencies.

The media trainings sensitized and resulted in more news articles published on climate change related issues, informing the public about the same. Media manuals for journalists as well as for teachers were developed and distributed among the training participants, and made available on online platforms (Annex 2: 3.1a/b). The training material for trainers can be used as guidelines for future engagements.

3.4 Sustainability

Several activities in IHCAP were designed to support sustainability beyond the end of the programme, however financial means are a big limiting factor. Activities that impacted on policy level are more likely sustainable because of the leveraged importance, such as the vulnerability and risk assessment trainings and profiles. IHCAP and DST did manage to bring national and international institutions to work with state governments, utilising and making available human resources. Several of the capacity building programmes included a mechanism to train new resource persons and compile training manuals for future use. Both measures promote the sustainability of the trainings. The institutionalisation of the glaciology curriculum is another successful mechanism to support sustainability, or if activities are part of the institutions mandate. The technical capacity was increased in the programme and funding leveraged. However, the limited funding at state level restricts the possibilities for climate change adaptation activities.

The spring-shed management research studies, workshops and capacity building in **outcome 1** are being taken up by some of the state governments and NITI Aayog, leading to a potential future national programme. The HUC Academy is an established training event, which trains and mentors HUC Academy fellows as resource persons for new HUC Academies. Thereby, institutional capacity and larger network of practitioners are built up over time, contributing to its sustainability. The HUC Academy being set up within an intergovernmental organization such as ICIMOD providing it credibility and larger reach. Knowledge gained through the Focus Grants have substantial influence on early career academicians.

The institutionalised glaciology curriculum in **outcome 2** builds on the courses developed in IHCAP Phase 1 and the Teach the Teacher workshop, and is continued and further developed. The adaptation planning trainings were implemented for different levels, which include orientation trainings for legislators (level 1), trainings for senior officials (level 2), trainings for district level officials (level 3),

and a programme for training of trainers (level 4). With this approach, the different levels of the government gained a better understanding for adaptation planning, leading to more sustainable support. The training of trainers also supports the sustainability of the adaptation planning trainings. The state governments conducted the vulnerability and risk assessment, which can help them to conduct similar assessments on their own in the future. The Manipur State Government is linking the state climate change cell with the academic institutions to create a sustained climate adaptation initiative over time. Additionally, Manipur has taken the initiative further by training master trainers within key line departments to initiate training within respective government departments. Plans are to carry out the vulnerability assessment further by implementing similar assessments at the village level in the area of forest, agriculture and water. The sustainability of the training conducted may be compromised if there is a change in the nodal person.

The media trainings in **outcome 3** played a vital role in taking the climate change action to the wider audience via media reports. The effectiveness of such engagement was acknowledged by various stakeholders. A separate manual was developed for the training participants, as well as for trainers. These resources are available for access and future use within the IHCAP website. The Manipur state government has adopted the media fellowship and are planning to continue funding the fellows on a yearly basis. The respondents from the states of Tripura and Nagaland, also indicated their interest in supporting similar workshops and media fellowships beyond the programme period. IMI is a multi-stakeholder institutional platform which organises regular events that act as forums for discussing sustainable and integrated initiatives across the IHR. IMI's role is to organize national, regional and state level legislators' engagement events besides organizing the annual Sustainable Mountain Development Summit. Housing of knowledge within IMI can lead to some components of IHCAP initiatives carried over by IMI beyond the programme duration.

3.5 General

Management

The engagement of PMU was substantial and, in many instances, they played a critical role in the execution of the programme given the complexity of the challenge and scale of engagement across partners. PMU had a very structured way of working and mediated across multiple stakeholders to implement IHCAP. At times it seemed the tasks and responsibilities were distributed on too few individuals. An accumulation of tasks can lead to issues especially if execution and monitoring are within the same unit. The perceived lack of shared information that was expressed by some of the respondents might be an indication that the capacities were sometimes stretched. The interviews further left the impression that there have been generally very good relations from the PMU to the various partners involved, whereas there was little direct interaction among the different implementers (each working on its own specific niche). Such direct interactions would have allowed to benefit from further synergies and to create a further feeling of the programme being a joint undertaking.

Being able to count on an 'in-house' project management unit hosted at the Swiss Embassy in Delhi has been a major advantage for steering and guiding a highly complex programme such as IHCAP. For a potential future initiative, SDC India is advised to argue for the continuation of such a structure that delivers many advantages in its discussions regarding the setup in the new programme with SDC's head office.

Partnerships

Different kind of partners were engaged to support various objectives of the programme. The efforts to sustain the programme through institutional engagement was valued. Deeper engagement with

the MoEFCC may have helped the programme gain more exposure and reach across the outcomes. The diversity and number of stakeholders engaged within the programme was impressive. There is an impression that there is potential to increase the collaboration between various entities. There seems value in grounding the network of stakeholders, which includes participants of the workshops, trainees, trained personals, fellows and partner organizations.

Communication

The overall communication of IHCAP seemed satisfactory. The knowledge products are very informative and designed appealingly. In some cases, the programme's communication strategy showed weaknesses, such as in the knowledge sharing across the programme, as well as communication with partners. A lot of knowledge was generated during the lifespan of the programme and made available through various portals. However, there was a lack of awareness of available information and potentially fruitful partnerships across the programme. Partners and stakeholders were in several cases not fully aware of the larger programme activities. In the case of the cancelled collaborative research work, academic institutions that applied with proposals had a lack of clarity on the decision not to carry out the research collaboration, despite the written communication from IHCAP. Some of the observed communication issues with specific partners indicate an imbalance in the relationship. Naturally, partners and stakeholders have varying roles, mandates, priorities, and interests. A different approach of partnership brokering at the beginning of a new programme may help to establish early on a better common understanding and increased trust, which results in an improved relationship and communication.

Strengths

The PMU was very committed, which resulted in a well-managed programme. The programme involved many different types of stakeholders, which the PMU had generally a good working relationship with. It stepped in when and where required to reflect upon the objectives of the initiative and ensure success of the programme.

National and state level platforms and events facilitated interactions and exchange amongst various stakeholder. Besides these events, also the various trainings were effective in promoting interactions. The adaptation planning training and vulnerability and risk assessments brought together governmental staff from all states of the IHR, the media training facilitated interactions between governmental professionals on administrative as well as technical level together with journalists and mass media students, and the HUC Academy and technical trainings brought together students, early career scientists and experts from the entire HKH region.

Challenges

Covering the entire HKH region poses a unique challenge in terms of diversity and access and will always remain one. An inter- and transdisciplinary approach is key to tackle the issue of scale and programme financing. One of the key challenges of the project involved the institutionalization of Indian-Swiss research collaboration, in spite of much efforts spent, the collaboration did not materialize. The alternative activities on capacity building which were undertaken were on the other hand successful. Communication across the stakeholders and utilisation of generated knowledge across the programme components and activities was yet another challenge. Climate change information has been developed and used in policy making, especially to inform adaptation action proposals. The next step was to bridge the gap to have adaptation actions financed and implemented beyond the programme. The proposals have been submitted for financing but the decision regarding the same was still pending at the time of the review. Even if financed, some of the respondents did indicate the need for additional support from SDC to demonstrate/implement adaptation actions.

4 Recommendations

The following recommendations are for a new programme on climate change adaptation in the Himalayas. The following sections offer recommendations for possible thematic focus areas, programme implementation and a geographic scope.

4.1 Thematic focus area

Climate adaptation actions

Currently many of the state governments are in the need of early warning systems to help them increase their respite time in events of natural disasters. Across IHR the need for early warning systems for extreme events including lightning, flash flood, GLOF and cloud burst are required to be prioritised. Currently the river gauge monitoring as done by Central Water Commission and the weather forecasting regularly provided by India Meteorological Department (IMD) are in the process of being improved. But that said, these centrally funded institutions lack both the financial power and human resource capacity at state level to oversee the monitoring and maintenance of their existing systems. This therefore creates a unique need and opportunity (given their relatively larger human resources) across all state governments to implement their systems to address the gap in both spatial and temporal resolution.

Some of the state and city governments are in the process of formulation of early warning systems which are essentially to their risk preparedness. This includes the state of Odisha towards the development of early warning system for their Mahanadi Basin, the state of Gujarat on the heat action plan, the city of Surat for riverine flooding, the city of Kolkata for their storm water management and city of Chennai for monitoring water logging in smart city development area. Unfortunately, very few systems currently exist in the IHR which are equally prone to the hydro-meteorological risks. We strongly recommend:

- Development of unified framework for early warning system need assessment
- Selection of appropriate technology given geo-physical and environmental context of IHR
- Use of advanced and automated systems to increase the access, and last but not the least
- Integration of technology to supplement and complements the national institutions ongoing efforts.

In spite of strong realization and resources availability from both state government and National Disaster Management Authority for such efforts across IHR, the lack of unified framework, systems thinking and examples of appropriate DPRs / contracts make it complicated for the intuitions to scale up some of the existing pilot interventions. Given the Swiss expertise in areas of risk management and risk reduction, these are therefore some of the capacity building areas which future programmes can build upon.

Knowledge generation on permafrost

Research lays the basis for the focus and design of intervention and decisions taking. The essential climate variables (ECV) critically contribute to the characterization of Earth's climate. They provide the empirical evidence needed to understand and predict the evolution of climate, to guide mitigation and adaptation measures, to assess risks and enable attribution of climate events to underlying causes, and to underpin climate services. Knowledge on the ECV permafrost in the HKH region is still extremely sparse, as well as expertise, human capacity and funding. The current monitoring is insufficient to understand the distribution and status of permafrost, as well as involved processes. There is high confidence that permafrost degradation will affect high mountain phenomena such as slope instabilities, movements of mass, and glacial lake outburst floods (IPCC, 2012). The Hindu Kush

Himalaya Assessment report recommends to better monitor and model cryospheric changes and assess spatial patterns and trends (Wester et al., 2019). Urgency is required to expand permafrost, snow and glacier observation networks including in-situ and remote sensing observations. Newly gained knowledge on mountain permafrost informs hazard assessments since permafrost is often at the beginning of cascading hazard chains. Hazards related to thawing permafrost are for example slop instabilities, rock fall, debris flows, GLOFs, changing ecosystems and hydrological pathways, and instable infrastructure.

Swiss mountain permafrost experts established the permafrost monitoring network in the Swiss Alp (PERMOS, 2016) and contribute to the development and formulation of international monitoring strategies, protocols and best practices as members of the Global Terrestrial Network for Permafrost (GTN-P, 2014). There is also vast experience on hazards and disaster risk reduction, especially related to cryospheric hazards, offering an excellent opportunity for Indian-Swiss research collaboration on mountain permafrost and disaster risk reduction.

We recommend:

- Establishment of a research collaboration with Indian and Swiss partners, building on existing contacts. Potential partners institutes based in mountain areas have the advantage to be more familiar as well as affected by mountain hazards, and can more easily visit study sites.
- Development of a permafrost monitoring strategy for India, following international guidelines. A strategy should have a long-term view beyond the end of the project, including a plan to later establish borehole measurements at a suitable location. Early links with GTN-P should be supported to ensure inclusion of the Himalayan perspective in global monitoring.
- Establishment of in-situ monitoring. The expansion of sites with existing hydro-meteorological and possibly glaciological monitoring are an advantage for a more comprehensive understanding on permafrost. Using a complementing modelling approach and remotely sensed monitoring would be beneficial.
- Increase process understanding of hazard chains related to permafrost. Potential hazards are GLOFs, mass movements (e.g. slope instabilities, rockfall), damaged infrastructure (e.g. roads)
- Develop Disaster Risk Reduction (DRR) interventions to mitigate and adapt to the identified hazard.

Capacity building

The IHCAP programme did provide very useful trainings in area of glaciology and vulnerability assessment. In order to build on its past efforts, there is strong need for increased training to the government officials in the area of DRR which should include planning, safeguard, management and rehabilitation. The need for training in such areas is across all departments within respective state governments. The initiative will therefore not only help in increased knowledge but also increased networking and coordination leading to effective cross-sectoral actions. Similar to the vulnerability assessment trainings done as part of IHCAP leading to capacity of certain state governments conducting the exercise themselves, the disaster risk reduction trainings should involve field-based exercises including mock drills there by the leading to continued practice of knowledge gained beyond the training period. We recommend:

- Trainings for government officials in the area of DRR. It should include planning, safeguard, management and rehabilitation and field-based exercises, and be offered across all departments within respective state governments.
- We recommend to focus capacity building on the processing and analysing of data and knowledge. This is based on multiple requests from respondents and we realise its importance in ensuring the sustainability of the initiative. Already a huge amount of raw data is available.

A next step is to assess the data for its quality, consistency and uncertainties, and if necessary, process the data for improved quality and further analysis. The data is then utilised in conjunction with knowledge, and process understanding to generate new knowledge products, for example with modelling approaches. Such knowledge products could be maps, data projections and scenarios which can then further be used for adaptation applications.

For scientific capacity building, we recommend to put priorities on the development of academic as well as and pedagogic skills to assure good quality of data and research in the HKH region:

- Teaching academic skills, as it is essential and still necessary on several levels, as well as training academic staff to teach effectively.
- Applying pedagogic approaches, involving a professional pedagogue, or trainers with pedagogic training to increases the effectiveness of training programme.
- Promote interdisciplinary approaches to do justice to the complex issues in the different parts of the HKH mountains. Teaching a transdisciplinary approach is equally important to enable researchers to utilise and value all stakeholders input and needs. This includes to collect, interpret and use indigenous knowledge, transfer knowledge to local communities, interact with governmental institutions, involve relevant local research institutes and generate relevant research together.

Building institutional capacity and in the same time institutional memory supports education for sustainable development and enables implementation and sustainability. To build institutional memory a suitable strategy has to be developed, ensuring a sustainable system with institutional support and resource allocation. To build institutional capacity, we recommend:

- Systematic involvement of trainees from previous trainings as new resource persons. Side sessions only for the newly trained resource person during the training programme help to reflect on their experience, transfer skills, build them up, train and mentor them as new trainers.

Further we recommend:

- Complement regional onsite trainings by webinars, held by regional or international trainers, and attended by trainees from the entire HKH region. There are multiple advantages such as a larger reach with more people benefitting, knowledge from geographically far places can be shared, and it is more economical and ecological, with a smaller carbon foot print.
- Lastly, we recommend to continue collaboration with HUC academy for regional training and to build up future regional leaders.

Knowledge portals and networking

Currently all the states in the IHR have conducted vulnerability assessment using the framework developed as a part of IHCAP. Nevertheless, only some of the states in the IHR have made the digital files available through an online portal to inform some of the state governmental activities. The presence of non-digital documents makes it difficult for some of the states to carry forward such assessments in events of change in political administration and administrative leadership. We recommend:

- Development of a common platform that will help the states in not only parking their current data but also help create a sense of competition across the states. Moreover, the presence of such data and information in a single portal will enable detailed risk assessments of some of the hazards which usually do not adhere to the administrative boundaries. This will further help in policy formulation across states to address and cooperate around regional challenges. Such platform can also be used as a bulletin / message board where aspects of good practices, technical queries regarding usage and events can be shared.

- Development of a strong knowledge sharing strategy including long-term knowledge portals. Such a strategy could include establishing a unified consolidated knowledge portal, with clarity on data usage protocols. Dependent on the scope of a project and corresponding knowledge portal, advantages and limitations of independent versus state-own hosts should be carefully evaluated. Virtual and physical platforms are needed to engage universities and government agencies.

IHCAP through its multi-stakeholder engagement process did manage to provide training and capacity building to several government and non-government officials in the area of climate change. Additionally to the training, we recommend:

- Creation of a platform for networking amongst the trained fellows using common or widely used networking platforms. It would help the beneficiaries of the training to stay connected, organize further training and also act as key resource persons to the respective state governments. If linked with the DRR programmes, these trained personals can also act as first responders in events of disaster.

4.2 Programme implementation and modalities

Programme management and structure

We recommend a programme management unit as implemented during IHCAP, as far as administrative processes at SDC allow. In the HKH region, a PMU is very effective and helpful, facilitating direct links between SDC and governmental partners in particular. A PMU has the overview over all components, coordinates with all implementing partners and can more easily intervene in corrective manner to achieve the programme's objectives and SDC's priorities.

IHCAP is a large complex programme with many partners and stakeholders. We recommend to focus and streamline a new programme more, and to reduce the number of involved partners.

Partners

In the review process we had the opportunity to discuss the priorities of governmental partners and learnt about their mandates and various National Missions. Our investigations were not deep enough to give specific recommendations for future partnerships or modes of collaboration.

In IHCAP we noticed a potential to improve collaboration and communication between various entities. In order to gain a better common understanding, we recommend:

- Entering a partnership brokering programme in an early stage of the programme development. A partnership brokering programme helps to better understand and address the various stakeholder's expectation, potential, priorities and limitations to manage the partnerships more effectively. Essential skills for effective partnership brokering are communication, interest-based negotiations and facilitation of complex processes.

For the research collaboration, we recommend:

- Working with local research institutes in the hill and mountain area, which are familiar and affected by mountain related issues and can take action locally. Ideally, research collaborations are based on consolidated partnerships for work periods of at least 4 years.

Communication

In a large and complex programme with many partners and stakeholders, persistent communication and ongoing coordination are essential. For a future programme we recommend to streamline and focus the project and partnerships to reduce the required amount of communication and coordination. Alternatively, we recommend to designated a person responsible for the

communication across the entire programme and with all stakeholders. A partnership brokering programme can help to establish a good understanding and communication between the partners.

We also recommend to make newly generated knowledge actively available and promote for use for all project partners.

4.3 Geographical scope

We recommend to focus a future programme on few selected states and districts in the IHR for effective interventions and better impact. Ideally, knowledge generated and partnerships built in earlier programmes are utilized and considered for the decision on the geographic work area. Additionally, synergies with other programmes should be used, such as the programme “Strengthening State Strategies for Climate Action” (3SCA).

Training courses, knowledge dissemination events and science-policy-practice event should be open to partners and stakeholder from other states and the Himalayan Region. This approach prepares for a later up- or out-scaling to other states and the region.

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Annex 1 Terms of Reference (ToR) for Review

Terms of Reference (ToR)

Review of

Indian Himalayas Climate Adaptation Programme (IHCAP) Phase 2

1. Introduction and Context

Global context

Globally, mountains have been recognized to be one of the most vulnerable regions to climate change as they experience more rapid changes in temperature as compared to low lying regions. Notwithstanding mountains related issues have not been addressed adequately at UNFCCC, as highlighted by the global Mountain Initiative. IPCC's Fifth Assessment Report (IPCC AR5) states that mountains are being impacted by climate change and also that the Asian mountains have contributed substantially to the decrease in global ice mass. At the multilateral level, the UNFCCC has further identified developing capacities for adaptation in mountains as a priority area. Similarly, the Sendai Framework for Disaster Risk Reduction states that promoting the mainstreaming of disaster risk assessment, mapping and management into development planning in mountains is a priority area.

Indian context

In India and in particular the Indian Himalayan Region (IHR), climate change poses a serious threat to social and economic development due to its dependency on climate sensitive sectors and natural resources for sustaining livelihoods. A study by the Indian Network of Climate Change Assessment (INCCA) which provides sectoral and regional analysis for 2030s has reported increase in average temperature and changes in rainfall pattern over the Himalayan region. Such changes in the Himalayan Region are projected to influence even more profoundly the regional ecology, agriculture productivity, water resources and the mountain communities.

Recognizing this challenge, Government of India in 2008 launched the National Action Plan on Climate Change (NAPCC) with the only region focused National Mission—the National Mission for Sustaining Himalayan Ecosystem (NMSHE). The overall aim of NMSHE is to deliver better understanding of the coupling between the Himalayan ecosystem and the climate factors, for which capacity building has been identified as a major mean. In 2014, the Government of India announced the National Mission for Himalayan Studies giving impetus to research on Himalayan issues and National Adaptation Fund. In its Intended Nationally Determined Contributions (INDCs), India has identified Himalayas as a priority area for adaptation actions and need for building capacities to address climate change. In line with NAPCC, all the Himalayan States have drafted their respective State Action Plan on Climate Change (SAPCC) – an important vehicle for mainstreaming policies and programs for climate adaptation at the sub-national level. The implementation of the NMSHE is coordinated by the Department of Science and Technology (DST) of the Government of India.

IHCAP

In 2012, Swiss Agency for Development & Cooperation under its Global Programme Climate Change and Environment (GPCCE) launched Indian Himalayas Climate Adaptation Programme (IHCAP) in partnership with India's Department of Science & Technology (DST—implementing agency for NMSHE) as a contribution to strengthen climate science and capacities for climate change adaptation planning in IHR. IHCAP was organized in two phases. IHCAP Phase 1 was operational from 2012 to 2015[1] while Phase was organized for 2016-2019.

IHCAP Phase 1

Review of the first phase had highlighted IHCAP's contribution to strengthening science-policy-practice connect besides developing good networks and trust, which formed the basis for IHCAP Phase 2.

In summary, the review for IHCAP Phase 1 noted the following:

- Upscaling has been achieved by bringing together national and state level actors however, out-scaling is still in its initial stage but has good potential
- Good results were achieved with the different training modules and development and introduction of the vulnerability framework in Himachal Pradesh. Improvements may be achieved by adding more sector specific material and better addressing gender related topics
- Time delays were encountered during the glaciology trainings. The unresolved status of the Indian Centre on Glaciology, has setback the implementation and sustainability of the capacity building on glaciology. Both the students as well as the resource persons were very enthusiastic about the glaciology training of Level 1 and Level 2. Level 3 training was not executed due to administrative problems
- Good results with the media trainings. The quality of the training depended on the availability of local adaptation knowledge resource persons in combination with recent events providing interesting media material. Results of the policy briefs in terms of influencing policy makers appear to be a gap

The IHCAP Phase 1 review gave the following recommendations for IHCAP Phase 2:

- Development of a strong programme of Indo-Swiss collaborative research on climate change and adaptation for IHR which includes both physical and social science. Care should be taken to assure that the results of this collaborative research are used at all levels of government
- Involvement of the media at state and local level for outreach can greatly help in strengthening the science policy interface. Regional outreach may be further improved by further strengthening the cooperation with regional institutes such as ICIMOD. Outreach of IHCAP products may be improved by e.g. making training material available, science briefs (instead of policy briefs), media articles

[1] The project was approved for implementation from April 2012 – March 2015. In 2013, the phase was extended by nine months to conclude by December 2015.

- For up- and out-scaling, further development of the vulnerability assessment framework for different States and improved guidance on the application of the framework is recommended to be supported in IHCAP Phase 2
- Capacity building on glaciology may be strengthened by supporting for example the Indian Institute of Science to make training material available to assure uptake of training modules developed by different university and institutes mainly in IHCAP phase 1
- Improvement of the governance of IHCAP may be achieved by creating a broader and more independent JWG and dissolving the PSC

IHCAP Phase 2

Building on lessons and experiences from Phase 1, it was planned to out-scale Indo-Swiss collaborative research efforts and state level capacity building programme to the entire IHR and strengthen science-policy interface at the regional and global level through IHCAP Phase 2 (2016-2019).

Following are some of the key differences between Phase1 and 2 of IHCAP:

- While, during IHCAP Phase 1 the focus for capacity building and research activities was Himachal Pradesh. During Phase 2 out-scaling was envisaged to cover the entire Himalayan region involving all the 12 Himalayan states
- Also, while in Phase 1 mobilization of NMSHE funds was minimal Phase 2 aimed at substantial mobilization of NMSHE funds particularly for out-scaling the collaborative research and state level trainings
- The third major difference was in the strategy to aim at the institutionalization of activities with an aim of providing sustainability to the efforts beyond the project cycle

As continued form the first phase, IHCAP worked with India's country system at the national and sub national levels with the overall goal that 'the resilience of vulnerable communities in the Himalayas is strengthened; and knowledge and capacities of research institutions, communities, decision-makers and implementers are enhanced'. This programme in its articulation of the outcomes, responds to Government of India's demand (as envisaged under NMSHE and India's NDC) for bi-lateral collaboration to promote climate resilient development in the IHR. IHCAP was implemented by a Programme Management Unit (PMU) comprising of a team based in India. PMU was supported by a number of implementing partners including Swiss experts and institutions. At the state Government level in the Himalayan region coordination was done through the State Climate Change Cells (SCCCs) which were established with support under NMSHE. SDC's total financial outlay for IHCAP Phase 2 is CHF 3.50 million, which includes funds for activities undertaken in India and for Swiss experts. A Joint Working Group (JWG) and a Joint Steering Committee (JSC) were established. While the JWG was meant for review and guidance for the Indo-Swiss collaborative research component, the JSC has the broader role of reviewing and guiding the IHCAP Phase 2 implementation. While the JWG had a panel of independent researchers from India and Switzerland, the JSC comprises of representatives from DST, SDC and other ministries of the

Government of India such as the Ministry of Earth Sciences and the Ministry of Environment, Forest and Climate Change.

The specific Outcomes of IHCAP Phase 2 and summary of the key activities under each is as follows:

Outcome 1: Knowledge increased on impacts of and vulnerability to climate change of the Himalayan socio-ecological system. Important elements of this outcome entails collaborative research and knowledge sharing on climate change impact, vulnerability, risks & hazards assessment and adaptation between institutions at national, regional and global levels.

The major setback for the IHCAP Phase 2 was that the Indo-Swiss Collaborative Studies could not be established. Though a joint call for proposal was made by DST and SDC there was no agreement on the projects which are to be funded during the first meeting of the JWG. This also resulted in the JWG meetings also not being organized after the first one.
As an adaptive strategy, ICIMOD was engaged for supporting the following three activities in the Hindu Kush Himalaya region with involvement of Swiss researchers through the Himalaya University Consortium:

- Research projects on Climate Change Sciences and Adaptation Measures
- Technical trainings on glaciology and spring-shed management
- Organization on HUC Academy on Climate Science and Adaptation in the Hindu Kush Himalayan Region with a Transdisciplinary Approach

The engagement with ICIMOD is directly with SDC through a mandate and does not involve DST.

The NITI Aayog (formerly the Planning Commission of India) set up a Working Group for rejuvenation of Himalayan springs. IHCAP helped in organizing meeting of the Working Group and also in the development of the report with various recommendations. For helping in the implementation of the various recommendations IHCAP worked with the Advanced Center for Water Resources Development and Management (ACWADAM).

Workshops for enhancing science policy interface are also organized as part of the outcome. The support is made through mandates to either Universities or Civil Society Organizations.

Outcome 2: Capacities of academic and public institutions to address climate change in the Indian Himalayan Region are enhanced. Accordingly, this outcome envisages strengthening State level processes for integrating science in to climate adaptation planning and later implementing climate change adaptation measures by building capacities, facilitate access to finance for adaptation projects and demonstrate science-policy practice.

Strengthening of glaciology curriculum in two Indian Universities was undertaken based on the modules developed for glaciology training in Phase 1. Delhi University and Kashmir University participated in the activities. Swiss Universities provided the technical capacity building required for teaching the new curriculum.

Collaborative research in Kullu organized during Phase 1 of IHCAP was converted into adaptation project proposals to demonstrate science based adaptation planning. Consultancy

firm CTRAN worked with Department of Environment, Science and Technology, Government of Himachal Pradesh and Swiss researchers for the same.

For the purpose of enhancing capacities of state government officials multi-level trainings on adaptation planning and implementation were organized by NABCONS in coordination with the State Climate Change Cells of the Himalayan States (SCCCs). The trainings were co funded by the SCCCs through NMSHE. Similarly capacity building of SCCCs and other relevant Departments of the all 12 Himalayan states was taken up with IIT Guwahati, IIT Mandi and Indian Institute of Science based on a common framework for vulnerability and risk assessment.

Support was provided for development of fundable project proposal to mobilize climate finance from various sources of the Government of India and state Government. Support was also provided for revision of State Action Plan on Climate Change. For this purpose consultants were supported to work with the SCCCs for development of the proposals/documents.

Outcome 3: Awareness is increased, policymakers are informed and knowledge is disseminated in Indian Himalayan Region, Hindu Kush Himalayas and beyond. It focuses on sharing new knowledge, understanding and experiences at national, regional and global levels to bridge the knowledge and science-policy-practice deficit.

For the purpose of enhancing the science policy practice connect and for informing the policy makers support is provided for the multi stakeholder platform namely the Sustainable Mountain Development Summit (SMDS). The SMDS is organized by the Integrated Mountain Initiative (IMI), a Civil Society Organization. Besides SMDS IMI also organized regional and state level events for informing policy makers on various aspects of climate change ad sustainable development.

Enhanced reporting of climate change issues in the Himalayas was ensured through state level media workshops with focus on vernacular media and also through media fellowships for capturing community voices. The media workshops and fellowships were organized by the Centre for Media Studies (CMS). The state level media workshops were organized in coordination with the SCCCs.

For regional and global knowledge and experience exchange event was organized using platforms of ICIMOD, the UN Conference of Parties (COP) and the World Mountain Forum (WMF).

As a one off activity the World Environment Day (WED) 2018 related activities were supported across the 12 Himalayan states and in three additional cities. India was the host country for WED in 2018 and the focus theme was plastic waste management.

Key achievements of IHCAP Phase 2 are as follows:

- Out-scaled knowledge gained from the research and technical trainings from Indian Himalayas to Hindu Kush Himalaya countries through collaboration with HUC of ICIMOD
- Glaciology curriculum strengthened in 2 Indian Universities thus ensuring sustainability of the Indo-Swiss Capacity Building Programme on Himalayan Glaciology. A portal

hosting the curriculum developed during Phase 1 of glaciology training has been developed (http://glaciology.in/)

- Enhanced capacities of state Governments for vulnerability assessment, raising public awareness and adaptation planning and trainings on adaptation planning and implementation institutionalized in the Himalayan sates of Mizoram and Tripura
- Vulnerability profiles of all the states and districts in the Indian Himalayan Region made available for the first time using a standardized common framework
- As a result of the support to science policy interface workshops:
    - India's Parliamentary Standing Committee on Water Resources took note of the impact of climate change on glaciers and the resulting impact on water security
    - NITI Aayog's report on Inventory and Revival of Springs in the Himalayas for Water Security published

Since the start of the project, India's domestic policies related to climate change are evolving continuously and the project is playing a critical role in supporting the implementation of some activities of the NMSHE mission and building linkages between national mission and priorities of Himalayan States on climate change action plan. In view of the rapidly evolving policy landscape in India, the main purpose of the review is to take stock and to learn from the implementation of activities from the second phase of IHCAP. The review shall also give recommendations/guidance/orientation for a new project on climate change adaptation in Himalayas under consideration at SDC.

2. Objectives of the Review

The objective of the review will be to assess the overall performance of the project, including the impact, outcomes, outputs, partnerships, processes, and results of scaling-up (replication or broadening the scope of engagement) and to make recommendations for a potential new project. The review is expected to provide a critical external view on how the SDC funded IHCAP is being implemented as well as its achievements and scope for contributing lessons and prospective topics keeping in view the potential new project for Himalayas and beyond.

It is expected that the review will provide insights into the effectiveness and efficiency of results, relevance and sustainability of the programme, together with lessons learnt and experiences gained in promoting:

- scientific understanding in the field of climate change impacts assessment and adaptation at the regional level
- capacity building in glaciology, spring-shed management and related areas at the regional level
- institutional strengthening of capacities on adaptation planning and implementation (including climate vulnerability and risk assessment) and raising public awareness at sub-national level across the 12 Himalayan States
- facilitating policy dialogues among Himalayan States, at the national level and outreach for knowledge sharing at the regional and global level

3. Scope/Focus of the Review

Overall, the review should be based on the set of criteria prescribed by OECD viz. **impact, relevance, effectiveness, efficiency, and sustainability**. More specifically, the following key points/questions shall serve as illustrations and guidance for aspects to be considered in the comprehensive assessment of the project's achievements by the review:

Context/Relevance

- **Relevance** of **strengthening capacities** at national and sub-national level in **climate science (specifically glaciology and related areas), adaptation planning and implementation** at sub-national level in IHR in **context of India's national policies and programmes (e.g., NMSHE, SAPCC)**
- **Relevance** of the **strategy and approach** followed under the project with reference to Government of India policy and **GPCCE goals and objectives**

Outcomes/Impacts

- **Assessment** of the overall **achievements (accountability)** of the project in terms **of the outcomes/impact and outreach**, at the level of project stakeholders.
    - What were the main contributions (including transfer of knowledge) and impact of IHCAP in the field of science capacity building, institutional strengthening at sub-national level, collaborative studies and facilitation of policy dialogues?
    - What were the impacts and learning from the project in terms of capacity development of students and partners institutions in collaborative studies?
    - How did the project address policy or contributed towards policy processes and with what impact at the sub-national/national/international level?
    - What were the innovations, which were effectively addressed under the project and with what results?
    - What was the outcome and learning of the knowledge management effort?
    - Was the project engaged with the right mix of stakeholders?
    - Has the project adapted its strategies adequately in Phase 2 keeping in view the changing external policy and implementation environment?

Effectiveness and Efficiency of Strategy

- **Effectiveness and efficiency** of the project to address needs (capacity building, institutional strengthening, etc.) of the target groups of the project in **identification, prioritization and implementation of the action**.
    - Was the choice of focus topics and approaches for training, capacity building and studies suitable?
    - How effective was the project been in linking implementation actions with policies?
    - Are the project results of the phase 2 in alignment with the originally defined objectives and were these outcomes and outputs achieved?
    - How effective were the monitoring instruments used at different levels for project implementation?

- Was the institutional set-up (PMU, Swiss Universities Consortium, implementing partners) effective and cost-efficient?
- Was the project efficient and effective related to use of SDC funds (cost effectiveness and financial sustainability)?
- Was the cost sharing between SDC and DST adequate and efficient?

Sustainability

- **Assessment** of the project in terms of its **sustainability and potential for up-scaling and replicability**.
  - How sustainable were the strategies (science capacity building by training young researchers, capacity building of state level officials, collaborative studies and policy facilitation) followed under Phase 2? Do these strategies have the potential for up-scaling and replication?
  - How sustainable was the strategy of involving and relying on Swiss faculties for science capacity building and collaborative studies?
  - What strategies has the project followed for mainstreaming its activities further with national and sub-national priorities for the Indian Himalayan Region?

As Dr. Dorothea Stumm was directly working for ICIMOO in the recent past she would not be involved in the review of the ICIMOO and HUC implemented activities. Further, no visit to ICIMOO offices at Kathmandu, Nepal are envisaged as part of the review. The review team, except for Dr. Dorothea Stumm will interact with the ICIMOO staff over teleconference.

Recommendations for new project on climate change in mountains

- **What?**
  - Suggestions for the thematic focus areas that need to be strengthened for development cooperation and long-term sustainability
    1. For example, how suitable are thematic areas of disaster risk reduction, permafrost and water?
  - What are the thematic areas where Swiss expertise may add value in mountain related issues?
- **How?**
  - How should engagement be continued with the Government of India?
    1. How suitable is to continue with DST as a country partner?
    2. Which other partners would be suitable for promoting climate resilience in the mountain regions of India?
    3. For example, should the focus be on partners such as MoEFCC, NDMA or NITI Aayog?
  - Implementation partner: the IHCAP project was implemented by a PMU based at SDC. For future project what would be the recommendation for implementation approach? What are the pros and cons of the various approaches?

- **Where?**
  - The IHCAP project currently works across the 12 Himalayan states. Should the new project work in all 12 states or focus on lesser number of states?
  - What would be the most suitable/required levels of intervention (state, national, regional across Hindukush Himalayan Region)?
  - How could North-South, South-South and South-North knowledge cooperation be enhanced?
  - How could the lessons be most effectively shared at the regional and global level?

4. Methodology and Approach

The detailed methodology and approaches related to the review will be developed by the team and therefore the approaches suggested below should be taken as indicative and provisional.

As a first step, it is expected that the team will engage in a Desk Review by studying key documents including the project document, project log frame, operational and financial reports, end of phase report, minutes/ proceedings of the project steering committees and joint working group, proceedings of workshops directly organized and those supported by IHCAP, documentation related to the project including back to office reports, minutes of meetings held in connection with the project, etc. The review team will also go through the various knowledge products (reports, papers, web postings, etc.) generated out of the project. SDC/GPCCE India through the implementing partners will ensure that all the requisite documentations are made available to the review team.

As second step, on the basis of interactions with SDC/GPCCE India and project partners, the reviewers will come out with a brief inception report outlining their detailed methodology and work plan for organizing the review, after due consideration of the available time, resources and data/ information. The team members will also agree on the indicators, questions and hypotheses related to the review and their respective roles and responsibilities in discharging various tasks associated with the review including writing of the reports.

In the third step, the review team will visit ongoing project activities (such as workshops or training programmes, if any being conducted in India at time of review team presence), meeting with project partners (interaction with Swiss Universities, IHCAP PMU) and have detailed discussions/interactions/interviews/workshops with project stakeholders. Review team will also interact with critical government partners of IHCAP – the Department of Science & Technology (DST) and the Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India and the State Climate Change Cells in one or two states.

In the fourth step, the review team will have a debriefing session with GPCCE India to share their preliminary observations and seek necessary clarifications. In the final step, the team, will draft the report. It is expected that once the final report is prepared, the Team Leader of the review panel will make a presentation to SDC/GPCCE India. The Team Leader of the review panel will revise the report based on comments from SDC/GPCCE India and submit the final report. Based on the final report, SDC will prepare a management response.

5. Expected Outcome and Deliverables

The review team will initially submit a draft report. Based on consideration of the feedback received, the team will submit the final report. The main part of the final report of the review will not exceed 20 pages, excluding annexes. The final report will be shared with all concerned, including IHCAP PMU, Swiss research institutions, DST and other interested stakeholders. SDC will eventually provide a management response to the final report.

The outcome of the review is expected to provide an objective assessment of SDC's engagement in linking climate science, implementation capacities and policy related to climate change adaptation in the Indian Himalayan Region. The outcome of the review will provide strategic inputs into the formulation and design of a new project on mountains in India and to SDC/GPCCE India's engagement in climate science and adaptation within the context of GPCCE strategy 2017-20.

6. Documentation

The following documents/ material will be made available by IHCAP / SDC-GPCCE India to the members of the review team prior to/ during the evaluation.

- Project Document and log frame /updates/sub-project proposals and contracts
- Fact Sheet
- Website and portal links developed under the project
- Annual Operational Reports/ Financial reports
- Minutes of the Joint Steering Committee meetings
- Proceedings of key workshops/seminars organized or supported by IHCAP
- Key knowledge products/documents/reports/briefs coming out of the project
- Any other key documents/reports related to the project

7. Composition and Profile of the Review Team

SDC proposes to have a **three member review team**. The composition of the review team would include an international expert, a national expert and representative of SDC. The review team should combine the necessary expertise on monitoring and evaluation/Review of donor funded projects, climate science and climate change adaptation, sustainable mountain development especially in the Hindukush Himalayas/Indian Himalayan Region.

The **international expert** will be an acknowledged expert with relevant and methodological competence in project monitoring and evaluation of donor funded projects and will possess coordination, communication, writing and reporting skills of a very high order. Experts with experience of climate science/climate change adaptation, glacier monitoring or sustainable mountain development would be an added advantage. S/he will be designated as the Team Leader and in this capacity coordinate other team members. S/he will also be vested with the responsibility of submission of the inception/ draft and final reports.

The **second team member** will be a **regional or national expert** with relevant knowledge, experiences, expertise and skills on climate science, climate change adaptation and sustainable mountain development in the Hindu Kush Himalayas/Indian Himalayan Region. S/he is expected to have a thorough knowledge and familiarity with the India's national context,

in the realm of policies, strategies, and implementation of national programmes/missions. S/he will have requisite expertise and skills in the area of implementation, monitoring and evaluation of climate change adaptation projects.

The **third member** of the review team will be **from SDC** who has the experience of climate change projects. The inclusion of a representative from SDC is considered important to ensure that the GPCCE / Climate Change and Environment network benefits from direct exposure to knowledge and learnings from the project.

It is important that the skills, expertise and experiences of the three members are complementary.

8. Duration of Review

It is estimated that the total number of person-days required for the review could be 60 (25 days for the team leader, 15 days for the national expert, 10 days for SDC representative, and 10 days as reserve). This will include preparation, briefings, consultation, travel, field visits, workshops, debriefing, report writing, etc.

9. Time Period

The review is proposed to be carried out during April 1– June 28 2019 in accordance with the convenience of all concerned. All the steps in the review process should be completed latest by May 31, 2019. The operational and financial closure of the contracts will be completed by June 28, 2019.

Steps / Action Items	Period	Remarks
Kick-off meeting (review team with SDC in Bern and New Delhi) (via tele/video conferencing)	Fourth week of March 2019, first week of April 2019	Will be attended by Team Leader/International Expert and National Expert. GPCCE/SDC Bern, Head GPCCE (tbc) GPCCE India (Marylaure Crettaz, Mustafa Ali Khan)
Desk review of relevant project documents, review reports, minutes of meetings, workshop details, media coverage and all other materials related to the project	Fourth week of March 2019, first week of April 2019	IHCAP PMU will collate and send all relevant documents before end of March 2019. Desk review will run concurrently with face to face meetings in Switzerland and India.
Meeting with SDC Bern and meeting with Swiss Universities	Fourth week of March 2019, first week of April 2019	Visit of international expert to have interaction with Swiss partner institutions. Brief interaction with SDC.
Meeting with GPCCE India, IHCAP PMU and DST	Fourth week of April 2019	Initial meetings in Delhi by international and Indian expert Interaction will result in finalization of field locations to visit and inception report
Field visits, Stakeholder interactions and interviews	End of April – First week of May 2019	GPCCE, Bern may join for the field visits.

		De-briefing meeting with GPCCE India on key observations.
Report preparation (draft) + additional interviews	May 2019	Draft Report to SDC SDC to review draft report during June first week
Debriefing session and Presentation to SDC	Second week of June 2019	Presentation using skype
Final report after incorporation of comments	Third week of June 2019	Final report
Financial Accounts and closure of contract	28.06.19	Submission of all financial and operational reports for closure of contracts.

10. Funding

The cost of review will be borne by SDC.

11. Programme for Conducting Review

The programme for the review will be planned in consultation with the Review Team and concerned stakeholders.

12. Timelines (please see section 9 above for details)

- Initial meeting/ briefing at SDC
- Desk Review
- Submission of the inception report
- Work in field
- Debriefing
- Submission of the draft report
- Response / feedback on the draft report by SDC/GPCCE India
- Submission of the Final Report

13. Support and Facilitation

IHCAP PMU will extend logistic support for travel, hotel bookings, etc. during the review activities and field visits in India. The PMU will also make available all documents and other material related to the project and help in organising various meetings with the project partners and relevant stakeholders. The PMU will facilitate the field visits and meetings, stakeholder interactions in field and provide necessary support to the review team. The members of PMU may accompany the review team during field visits to facilitate meetings with project partners/stakeholders; however, they will not be present during the course of such interactions.

Annex 2 Used documents

File number	File name
P1	Project Document (Prodoc)
P2	Logframe IHCAP Phase 2 and Achievements against the same
P3	IHCAP Annual Report 2016
P4	IHCAP Annual Report 2017
P5	IHCAP Annual Report 2018
P6	Minutes of 1st Joint Steering Committee (JSC) meeting
P7	Minutes of 2nd Joint Steering Committee (JSC) meeting
P8	Minutes of 3rd Joint Steering Committee (JSC) meeting
P9	Minutes of 4th Joint Steering Committee (JSC) meeting
P10	Minutes of 5th Joint Steering Committee (JSC) meeting
P11	IHCAP: http://ihcap.in/
P12	NMSHE Knowledge Portal: http://www.knowledgeportal-nmshe.in/
P13	IHCAP Twitter account: https://twitter.com/ihcap_Himalayas
Outcome 1	
1.1a	ICIMOD first operational report
1.1b	ICIMOD second operational report
1.2a/3.2a	NITI Aayog report on springs
1.2b/3.2b	NITI Aayog summary report for Himalayas
Outcome 2	
2.1	Glaciology curriculum: http://glaciology.in/
2.1/2.2	Swiss researchers report *1.1 Teach the Teacher Training, Strengthen curricula* *1.2 DPR, Science Briefs, Draft Monitoring & Evaluation Framework*
2.2a	Proposal for reducing glacial outburst and flood risk in Parvati valley of Kullu district, Himachal Pradesh
2.2b	Proposal promoting climate resilient agri-horticulture in Banjar, Kullu district, Himachal Pradesh
2.2c	Proposal promotion of resilient ecosystem through reduced pressure on forest through propagation of medicinal plants in Great Himalayan National Park
2.2d	Proposal for springshed Management for Spring Rejuvenation in Rambiara and Romshi River Basins Jammu and Kashmir
2.2e	Science Brief Assessing Climate Vulnerability and Rink in IHR
2.2f	Science Brief Ecosystem Based Adaptation
2.2g	Science Brief Flood Risk and EWS
2.2h	Science Brief Mountain and Lowland Linkages
2.3a	Climate Vulnerability and Risk Assessment: Framework, Methods and Guidelines
2.3b	Climate Vulnerability Assessment for the Indian Himalayan Region Using a Common Framework
2.3c	VRA geoportal: http://himalayageoportal.in/
2.3d/3.1c	Assessing Impact of Trainings under IHCAP Phase-2
2.4	Manipur draft SAPCC
Outcome 3	
3.1a	Manual for journalists
3.1b	Manual for media trainers
3.2	World Environment Day 2018

Annex 3 Interviews in Switzerland and India

Outcome	Interview partner	Institution	Date of interview
Various	Ms. Marylaure Crettaz	GPCCE, Swiss Agency for Development and Cooperation	23/4/19
Various	Dr. Mustafa Khan	IHCAP Program Management Unit	23/4/19
	Ms. Divya Mohan	IHCAP Program Management Unit	
	Ms. Shimpy Khurana	IHCAP Program Management Unit	
Various	Ms Divya Sharma	Strengthening State Strategies for Climate Adaptation (3SCA), GPCCE, SDC	24/4/19
Various	Dr. Akhilesh Gupta	Director, Department of Science and Technology (DST)	23/4/19
	Dr. Nisha Mendiratta	Head of Communication, Department of Science and Technology (DST)	
Various	Mr. Arvind Nautiyal	Ministry of Environment Forest and Climate Change (MoEFCC)	2/5/19
	Mr. Lalit Kapur	Mountain Division, Ministry of Environment Forest and Climate Change (MoEFCC)	
	Dr. Subrata Bose	Mountain Division, Ministry of Environment Forest and Climate Change (MoEFCC)	
1.1	Dr. Chi Huyen (Shachi) Truong	HUC Program Coordinator, ICIMOD	24/4/19
1.1	Dr. Anne Zimmermann	Head ESD cluster, Centre for Development and Environment, University of Bern	1/4/19
1.1	Dr. Veruska Muccione	Senior Scientist, University of Zurich	2/4/19
1.1	Dr. Nadine Salzmann	Lecturer, University of Fribourg	3/4/19
1.1	Dr. Abhijit Datey	Focus Grant, Principal Investigator; Assistant Professor, TERI SAS	29/4/19
	Dr. Bhawna Bali	Focus Grant, Co-Principal Investigator; Assistant Professor, TERI SAS	
1.2	Dr. Himanshu Kulkarni	Advanced Center for Water Resources Development and Management (ACWADAM)	24/4/19
2.1	Dr. Irfan Rashid	Assistant Professor, Department of Earth Science, Kashmir University	24/4/19
2.1	Dr. R. B. Singh	Professor, Delhi University	1/5/19
	Dr. B.W. Pandey	Associate Professor, Department of Geography, University of Delhi	
	Dr Pankaj Kumar	Assistant Professor, Department of Geography, University of Delhi	
	Dr Subash Anand	Associate Professor, Department of Geography, University of Delhi	

Outcome	Interview partner	Institution	Date of interview
2.2	Dr. Suresh Attri	Department of Environment, Science and Technology, Government of Himachal Pradesh	27/4/19
	Mr Durichand Thakur	Management Information System (MIS) Officer and Project Deputy Coordinator, Department of Environment, Science and Technology, Government of Himachal Pradesh	
2.2	Mr. D. C. Rana	Department of Environment, Science and Technology and Secretary Disaster Management Department, Government of Himachal Pradesh	27/4/19
2.2	Ms. Archana Sharma	Department of Forest, Government of Himachal Pradesh	27/4/19
2.2	Prof. Markus Stoffel	University of Geneva	11/4/19
2.2	Dr. Simon Allen	University of Zurich	2/4/19
2.3	Ms. Nivedita Tiwari	Vice President, NABARD	29/4/19
	Mr. Suroj Pandey	Project Manager, NABCONS	
	Mr. Naresh Gupta	Managing Director, NABCONS	
2.3	Dr. Anamika Barua	IIT Guwahati	25/4/19
2.3	Prof. N.H. Ravindranath	Centre for Sustainable Technologies, IISc Bangalore	25/4/19
	Dr. Indu K. Murthy	Centre for Sustainable Technologies, IISc Bangalore	
2.3	Mr. Brijesh Kumar	Deputy Director, Environment Department, Government of Manipur	25/4/19
	Mr. R. K. Viren	Senior Engineer, Irrigation Department, Government of Manipur	
	Mr. Nimechal	Agriculture Department, Government of Manipur	
	Mr. L. Thomba	Agriculture Department, Government of Manipur	
	Mr. Rahul	Project Scientist, State Climate Change Cell, Government of Manipur	
	Mr. Styajit	Project Scientist, State Climate Change Cell, Government of Manipur	
2.3	Mr. A. K. Johari	Principal Chief Conservator of Forest (Biodiversity and Climate Change), Government of Assam; Member Secretary Assam state biodiversity board	26/4/19
	Mr. Rizwan	Consultant, Government of Assam	
3.1	Ms. Fantry Mein Jaswal	Secretary, Integrated Mountain Initiative (IMI)	23/4/19
	Mr. Golan Suanzamung Naulak	Program Coordinator, Integrated Mountain Initiative (IMI)	

Outcome	Interview partner	Institution	Date of interview
3.1	Ms. P. N. Vasanti	Director General, Centre for Media Studies	24/4/19
	Ms. Annu Anand	Head Advocacy, Centre for Media Studies	
	Ms. Purva Sachdeva	Executive Advocacy, Centre for Media Studies	
	Ms. Neeti Sinha	Executive Advocacy, Centre for Media Studies	
3.1	Mr. Devajit Baruah	Journalist at Telegraph	25/4/19
3.1	Ms. Azira Parveen Rehman	Media Fellow, Freelance Journalist	25/4/19

Annex 4 Assessment grid for evaluations of SDC projects/programmes

Key Aspects based on DAC criteria		**Score** (choose only one answer for each question)	**Justification - compulsory** (please write a short explanation with the main points and refer to the chapter(s) where the information that justify your assessment can be found)
Assessment of relevance			
1. The extent to which the objectives of the SDC projects/programmes are consistent with the demands and the needs of the target groups (incl. gender-specific requirements).	☒ ☐ ☐ ☐ ☐	*Very good: Fully consistent* *Good: Largely consistent* *Poor: Only partly consistent* *Bad: Marginally or not at all consistent* *Not assessed / Not applicable* [1]	Programme topics (mountain related research, vulnerability risk assessments, adaptation planning, knowledge dissemination) are very relevant for target communities. See section 3.1
2. The extent to which the objectives of the SDC projects/programmes are consistent with the demands and the needs of partner country (institutions respectively society) as well as the sector policies and strategies of the partner country	☒ ☐ ☐ ☐ ☐	*Very good: Obvious consistency with demands and needs of society and in line with relevant sector policies and strategies*[2] *Good: Consistency with demands and needs of society and in line with relevant sector policies and strategies* *Poor: Consistency with demands and needs of society not visible but in line with relevant sector policies and strategies* *Bad: Not consistent* *Not assessed / Not applicable* [1]	Programme topics (most notably vulnerability risk assessments (VRA), adaptation planning, research) are of growing relevance to society and national and state level decision makers. Support and collaboration with DST resulted in impact on national policy level. See section 3.1
3. The extent to which the design of projects/programmes is adequate to achieve the goal and objectives (definition of target groups; choice of approach and operational elements; articulation of components; choice of partners; consistency with SDC policies and experiences).	☐ ☒ ☐ ☐ ☐	*Very good: Fully adequate* *Good: Largely adequate* *Poor: Only partly adequate* *Bad: Marginally or not at all adequate* *Not assessed / Not applicable* [1]	Programme components are well designed. A large range of mostly suitable and divers partners and target groups are selected. The overall programme is complex and lacks some cohesion, and could benefit from streamlining. See section 3.1
Assessment of effectiveness			
4. The extent to which the planned objectives at outcome level have been achieved taking into account their relative importance. If possible, distinguish the quality and quantity of results achieved.	☐ ☒ ☐ ☐ ☐	*Very good: Fully achieved or overachieved* *Good: Largely achieved* *Poor: Partly achieved* *Bad: Marginally achieved* *Not assessed / Not applicable* [1]	The quality and quantity of important objectives have been well achieved (e.g. VRA, adaptation proposals, spring research), except for the collaborative research. See section 3.2
5. The extent to which the projects/programmes contribute to poverty reduction, inclusion and/or reduction of vulnerabilities.[3]	☐ ☒ ☐ ☐ ☐	*Very Good: Strong evidence of contribution* *Good: Evidence of contribution* *Poor: Few evidence of contribution* *Bad: No contribution* *Not assessed / Not applicable* [1]	There is evidence that the programme contributed to inclusion and ultimately to vulnerability reduction (e.g. VRA, various trainings). See section 3.1 on effectiveness and efficiency on strategy

[1] This category applies a. if the ToR of the evaluation explicitly exclude the assessment of the criteria and/or of the key aspect(s) or b. if there is no information available to assess the criteria.
[2] The policies and strategies should not be in opposition to the needs of the society (applies mainly in governance and human rights).
[3] Dimensions for consideration are: a) economic (income and assets); b) human capacities (health, education, nutrition); c) ability to take part in society (status and dignity); d) political capacities (institutions and policies); e) resilience to external shocks.

6. The extent to which the outcomes achieved contribute to improved governance from a system perspective.[4]	☐ ☒ ☐ ☐ ☐	*Very good: Strong evidence of contribution* *Good: Evidence of contribution* *Poor: Few evidence of contribution* *Bad: No contribution* *Not assessed / Not applicable* [1]	The programme increased the capacity and knowledge of States and had impact on policy which contributes to an improved governance. See section 3.1 on effectiveness and efficiency
7. The extent to which the outcomes achieved contribute to gender-specific results.	☐ ☐ ☒ ☐ ☐	*Very good: Strong evidence of contribution* *Good: Evidence of contribution* *Poor: Few evidence of contribution* *Bad: No contribution* *Not assessed / Not applicable* [1]	There is little evidence for contributions to gender-specific results. See section 3.1 on effectiveness and efficiency of strategy
Assessment of efficiency			
8. The extent to which the relation between resources (mainly financial and human resources) and time (e.g. delays compared to planning) required and results achieved is appropriate (Cost-benefit ratio - CBR).	☐ ☒ ☐ ☐ ☐	*Very good: Positive CBR based on a cost-benefit analysis (CBA)* *Good: Positive CBR, based on qualitative justification* *Poor: Poor CBR, based on qualitative justification* *Bad: Bad CBR demonstrated* *Not assessed / Not applicable* [1]	Cost sharing with partners contributed to good CBR. Unfortunately, large time investment in planned research collaboration, but no results. See section 3.2 on effictiveness and efficiency of strategy
9. The extent to which the approaches and strategies used by the SDC projects/programmes are considered efficient (Cost-efficiency).	☐ ☒ ☐ ☐ ☐	*Very good: Highly efficient* *Good: Efficient* *Poor: Partly efficient* *Bad: Not efficient* *Not assessed / Not applicable* [1]	Efficient approaches, strategic choice of partners, support provided leveraged research work on policy level contributing to NMSHE. See section 3.2 on effectiveness and efficiency
Assessment of sustainability			
10. The extent to which the positive results (outputs and outcomes) will be continued beyond the end of the external support. Considering also potential risks in the context.	☐ ☒ ☐ ☐ ☐	*Very good: Very likely based on evidence* *Good: Likely based on evidence* *Poor: Little likelihood based on evidence* *Bad: Unlikely based on evidence* *Not assessed / Not applicable* [1]	Policy impact increases sustainability (e.g. VRA contributing to NMSHE, water related work). Selected trainings continued with own resources. See section 3.4 on sustainability
11. The extent to which partner organizations are capable to carry on activities. Capacity includes technical, financial capacity, human resources and importance of the activity for the organization.	☐ ☒ ☐ ☐ ☐	*Very good: Strong capacity (also to further develop without support)* *Good: Reliable capacity* *Poor: Little capacity (require further support)* *Bad: Still too weak capacity* *Not assessed / Not applicable* [1]	Institutional capacity and mandate support activity continuation (e.g. IMI, universities), for adaptation human capacity increased but lacking finances at state level. See section 3.4

Additional information (if needed): Click here to enter text.
Project: IHCAP Phase 2
Assessor: Dorothea Stumm
Date: 28 July 2019

[4] Dimensions for consideration are: a) structure (informed policies, laws, corresponding to basic HR obligations; degree of decentralization/multilevel concertation/cooperation); b) good governance in the performance/interaction of responsible actors/institutions (GGov principles: participation, transparency, accountability, equality&non-discrimination, effectiveness & efficiency, rule of law); c) capabilities, behavior, empowerment of actors/institutions for positive change; d) consideration of important global or regional governance dimensions.