



# **A Concept Note on the Provincial Dialogue on Climate Change Vulnerability and Risk Assessment (CCVRA) and Adaptation Planning**

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**Government of Nepal**

**Ministry of Forests and Environment**

**Building Capacity to Advance the National Adaptation Plan  
Process in Nepal**

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"This report is solely based on consultations, compilation, review and analysis of available national and international knowledge products, technical reports, strategies, policies, periodicals and research papers. The report has been benefited from different sources of literatures and ongoing works in subject area. The relevance of this report is limited to the stated purpose of the NAP process in Nepal."

## 1. Introduction

Nepal's vulnerability to climate change impacts—combined with a high level of poverty and inequality—underscores the importance of prioritizing climate change adaptation in the country's development agenda (MoFE, 2020), which has led to the introduction and implementation of policies, plans, programs, and strategies that support and facilitate climate change adaptation at national and sub-national levels. Aligning with the country priority, Nepal formally started the National Adaptation Plan (NAP) formulation process in 2015, adhering to the Cancun Adaptation Framework (CAF)<sup>1</sup> and the Article 7<sup>2</sup> of the Paris Agreement (PA) to identify the medium and long-term adaptation needs of the country.

Building on the country's experiences of the National Adaptation Programme of Action (NAPA) formulation and implementation, Nepal is formulating NAP through a multi-sectoral working group and Leave-No-One-Behind (LNOB)<sup>3</sup> approach. For this, initially, nine sectors/areas<sup>4</sup> were identified and led by the concerned ministry through the formation of the working groups (seven thematic and two cross-cutting). However, after the promulgation of the new constitution and implementation of federalism in Nepal, which introduced the National Climate Change Policy (NCCP) 2019, the working groups were updated and reformed to suit the new federal context and the provisions of the NCCP. At present, eight thematic working groups (TWGs) [i) Agriculture and Food Security, ii) Forests, Biodiversity and Watershed Conservation, iii) Disaster Risk Reduction and Management, iv) Health, Drinking Water and Sanitation, v) Industry, Transport and Physical Infrastructures, vi) Rural and Urban Settlements, vii) Tourism, Natural and Cultural Heritage, and viii) Water Resources and Energy] and four cross-cutting working groups [i) Gender and Social Inclusion, Livelihood and Governance, ii) Awareness Raising and Capacity Building, iii) Research, Technology Development and Transfer, and iv) Climate Finance Management] are formed and led by the respective ministries (Table 1).

Alike the global objectives, Nepal's NAP process aims to enhance the adaptive capacity as well as build resilience of the climate-vulnerable people and community, geographical areas, physical infrastructures, and ecosystems. Furthermore, the process is expected to integrate the identified medium-and long-term adaptation needs of the country into the development planning process, policies, programs and activities at national, provincial and local levels. Nepal considers the process as country-driven, participatory, multi-disciplinary, and gender-responsive, in line with the NAP technical guidelines. In the process, adaptation actions are identified and prioritized based on the best available science, indigenous and traditional knowledge, practice, and technology, and implemented through integrating into sectoral plans, policies, and programs.

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<sup>1</sup> Parties to the United Nations Framework Convention on Climate Change in its sixteenth Conference of the Parties (COP 16) agreed to formulate the NAPs building on the experience of the National Adaptation Program of Action as part of the Cancun Adaptation Framework in 2010.

<sup>2</sup> Article 7 of the Paris Agreement establishes the global goal on adaptation and calls Parties to engage in adaptation planning process such as formulation and implementation of NAPs, share experiences and lessons learned on support needs, plans and actions through adaptation communication and actively participate in global stocktake to enhance implementation of adaptation actions.

<sup>3</sup> NAP Approach Paper, 2016

<sup>4</sup> Agriculture Food Security and Nutrition, Forests and Biodiversity, Climate Induced Disaster, Public health (WASH), Tourism, Natural and Cultural Heritage, Urban Settlement and Infrastructure, Water Resources and Energy, Gender and Marginalized Group (Social Inclusion) and Livelihood and Governance

The Ministry of Forests and Environment (MoFE), as a focal ministry to the United Nations Framework Convention on Climate Change (UNFCCC), is leading the NAP process in Nepal. Other sectoral ministries coordinate the respective sectors in assessing the climate vulnerability and risks, current and future climate impacts in the sector, and possible medium- and long-term adaptation measures to address the impacts.

*Table 1: Thematic and Cross-cutting working group and coordinating ministries*

<b><i>Climate Change Policy Identified Thematic Areas/Sector</i></b>	<b><i>Coordinating Ministries</i></b>
<i>Agriculture and Food Security</i>	<i>Ministry of Agriculture and Livestock Development</i>
<i>Forests, Biodiversity and Watershed Conservation</i>	<i>Ministry of Forests and Environment</i>
<i>Disaster Risk Reduction and Management</i>	<i>Ministry of Home Affairs</i>
<i>Health, Drinking Water and Sanitation</i>	<i>Ministry of Population and Health/ Ministry of Water Supply</i>
<i>Industry, Transport and Physical Infrastructure</i>	<i>Ministry of Physical Infrastructure and Transport/ Ministry of Industry, Commerce and Supplies</i>
<i>Rural and Urban Settlements</i>	<i>Ministry of Urban Development</i>
<i>Tourism, Natural and Cultural Heritage</i>	<i>Ministry of Culture, Tourism and Civil Aviation</i>
<i>Water Resources and Energy</i>	<i>Ministry of Energy, Water Resources and Irrigation</i>
<b><i>Cross-Cutting Thematic Areas/Sector</i></b>	
<i>Gender and Social Inclusion, Livelihood and Governance</i>	<i>Ministry of Women, Children and Senior Citizen</i>
<i>Awareness Raising and Capacity Building</i>	<i>Ministry of Education, Science and Technology</i>
<i>Research, Technology Development and Transfer</i>	<i>Ministry of Forests and Environment</i>
<i>Climate Finance Management</i>	<i>Ministry of Finance</i>

At present, Nepal's NAP process is supported through the project- 'Building Capacity to Advance the NAP Process in Nepal.' The project is financially and technically supported by the Green Climate Fund (GCF) and the United Nations Environment Programme (UNEP), respectively. Through the Climate Change Management Division (CCMD) of the MoFE, the project is executing its activities towards formulating the NAP. The NAP project during the course of NAP formulation aims to:

1. Strengthen the institutional and technical capacity of government of Nepal at national and local level to advance the NAP process;
2. Contribute to reduce climate vulnerability by integrating CCA into existing and new policies, strategies and programmes;
3. Establish and strengthen the system to generate and share knowledge, experience, lessons learned, gaps and needs at international (NAP Expo, side-events during COPs sessions and SBs meetings), national and sub-national levels to advance CCA for the benefit of the poor people and restoration of ecosystem restoration; and
4. Develop a strategy to implement, monitor and communicate adaptation benefits at different levels.

The UNEP Nepal GCF NAP project has four components, four outcomes, 10 outputs, and 37 outputs/activities. Component One of the project is mainly about the technical and institutional capacity building of the relevant stakeholders in all areas of the NAP process. Primarily, the capacity building of the stakeholders at the federal, provincial and local levels on climate change vulnerability and risk assessment and adaptation planning is viewed as a critical entry point in NAP formulation and its implementation.

Therefore, the NAP project intends to organize comprehensive capacity development training on climate change vulnerability and risk assessment and adaptation planning at the provincial level, involving the multiple stakeholders from the province and local levels.

## **2. Rationale for the Capacity building training on Climate Change Vulnerability and Risk Assessment, and adaptation planning**

Vulnerability and Risk Assessment (VRA) is a critical step in adaptation planning and implementation<sup>5</sup>. Without a systematic assessment of climate vulnerability and risk, identification of adaptation plans and their implementation is simply difficult. Overlooking the vulnerability and climate risk may lead to the failure of any adaptation intervention, thereby giving rise to the practice of maladaptation which could be counterproductive and may not also support the development efforts of any country.

The systematic assessment of vulnerability and risks demands a technical understanding of the concepts and methods of vulnerability and risks, refined as per the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC). Technical knowledge on the conceptual understanding of the vulnerability and risks, interpretation of the risks for different sectors, an analysis of the potential impacts and possible adaptation measures, and determining the priority adaptation measures are prerequisites for an adequate assessment. Moreover, understanding the multi-faceted nature of vulnerability and exposure is a prerequisite for determining how weather and climate events contribute to disasters and designing and implementing effective adaptation and disaster risk management strategies<sup>6</sup>.

NAP is an iterative process that demands timely updates based on the state of climate change, risks, and impacts<sup>7</sup>. Additionally, Nepal's Environment Protection Regulation (EPR)-2019 has clearly outlined the need for periodic assessment of the climate change vulnerability and risks every five years. Similarly, it has been specifically stated to update, devise and implement the National Adaptation Plan every ten years. However, in the present context, the government's capacity (all government, federal, provincial and local) is limited. There is a massive gap in conceptual understanding of CCVRA assessment and adaptation planning methods among different stakeholders at different government levels. Thus, capacity building in CCVRA and adaptation planning is critical to adhere to the provisions of the act and regulations and

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<sup>5</sup> IPCC, 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment report of the Intergovernmental Panel on Climate Change (available at [www.ipcc.ch/report/ar5/wg2/](http://www.ipcc.ch/report/ar5/wg2/))

<sup>6</sup> O.D., M.K. van Aalst, J. Birkmann, M. Fordham, G. McGregor, R. Perez, R.S. Pulwarty, E.L.F. Schipper, and B.T.Sinh, 2012: Determinants of risk: exposure and vulnerability. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 65-108.

<sup>7</sup> NAP Technical Guidelines

effectively design adaptation measures for the medium and long-term and integrate them in the government's development planning process.

### **3. Purpose and objectives of the capacity building program/trainings**

The primary focus of the proposed programme is the capacity building of government stakeholders in climate change vulnerability and risks assessment and adaptation planning and make them assess their own in the long term. The program intends to transfer knowledge and skills on climate change vulnerability and risks assessment and adaptation planning process. The specific objectives of the program are to:

- 1) inform and sensitize the participants on climate change science and its impacts in the development aspiration of the country,
- 2) equip the participants with the detail knowledge and skills on the methodology of CCVRA and adaptation planning, and
- 3) deliver knowledge, skills and techniques of appraising adaptation options using multiple tools, particularly economic tools.

### **4. Outputs of the capacity building program/trainings**

It is expected that the program will add value to the government's effort in addressing climate change impacts through capacity building of the government (provincial and local) and other civil society organization officials in climate change vulnerability and risks assessment and adaptation planning. Furthermore, the programme will help to identify the potential adaptation measures in different sectors, which will be analyzed to finalize the medium-and long-term adaptation measures as part of the NAP document. Specifically, the program will;

- 1) sensitize and build an understanding of the relevant stakeholders at the province and local level on the climate change science and its impacts in the development sector which will help in further prioritizing climate change in development planning process in the country,
- 2) enable the relevant stakeholders, particularly the government officials from different ministries and agencies at the province and local level, to assess climate change vulnerability and risks in different sectors for its integration in respective agencies development plans, policies, programmes and budgets, and
- 3) develop a prioritized list of adaptation in different sectors, which will be an integral part of the NAP document.

### **5. Target Beneficiaries**

The program is primarily targeted to the policymakers, planners, government officials, civil society organizations representatives, representatives from local governments, and academicians from the province and local level. There will be 25 participants from different sector and geographic areas within the provinces in each of the provincial training.

The tentative list of the participants is presented below:

*Table 2: Tentative lists of Participants in the Capacity development Trainings on CCVRA and Adaptation Planning*

<b>SN</b>	<b>Thematic Area</b>	<b>Institution</b>	<b>Number</b>	
<b>1</b>	Agriculture and Food Security	Ministry of Land Management, Agriculture and Cooperatives	Food Security and Agriculture Business Promotion Division	1
			Livestock Development Division	1
<b>2</b>	Forests, Biodiversity and Watershed Conservation	Ministry of Industry, Tourism, Forests and Environment	Forest Management and Biodiversity Division	1
			Science, Environment and Climate Change Division	1
<b>3</b>	Tourism, Natural and Cultural Heritage		Industry and Tourism Promotion Division	1
<b>4</b>	Infrastructure, Transport and Industry	Ministry of Physical Infrastructure Development	Provincial Road and Transportation Management Division	1
<b>5</b>	Rural and Urban Settlements		Housing, Buildings and Urban Development Division	1
<b>6</b>	Energy and Water Resources		Water Resources and Energy Development Division	1
<b>7</b>	Health, Drinking Water and Sanitation	Ministry of Social Development	Public health Section	1
<b>8</b>	Disaster (climate change Induced)		Hydrology and Meteorology Office	1
			Red cross	1
<b>9</b>	Ministry of Economic Affairs and Planning	Financial Management Division		1
<b>10</b>	Municipality Association			1
<b>11</b>	Rural Municipality Association			1
<b>12</b>	Private sector-Chamber of commerce			1
<b>13</b>	NGO federation			1
<b>14</b>	District Coordination Committee Association			1
<b>15</b>	Provincial Planning Commission			1
<b>16</b>	District Forests Officer			1
<b>17</b>	Academic Institution			1
<b>18</b>	NEFIN			1
<b>19</b>	Federation of Drinking Water and Sanitation Users Nepal			1

20	Farmer Group Federation Nepal (FGF) Nepal	1
21	National Federation of Irrigation Water Users' Association Nepal (NFIWUAN)	1
22	DANAR	1
	Total	25

## 6. Modality and Structure of the training program

A four-day residential training in each of the province is envisioned for this capacity building programme. The initial two days will be focused on the theory of climate change science, vulnerability and risk assessment, and adaptation planning and implementation. The last two days will be focused on intensive group work on CCVRA and adaptation appraisal. A long list of adaptation measures will be identified from the provincial trainings in the last two days, which will later be incorporated into the NAP document.

The training will entertain a mixed approach of theory and group work in a participatory way, following the standard training delivery approach and avoiding extensive theoretical sessions. The focus will be on the group exercises. Besides, the content of the trainings will be shaped by the published national reports and scientific publications. The language of the training will be Nepali, and the presentations shall be prepared in Nepali to the extent possible; if not, the delivery will be in Nepali.

The training content will be developed based on the review of the documents as stated in the review chapter. In the context, the CCVRA report and the thematic climate change vulnerability and adaptation report will significantly shape the content of the training materials. Based on the review, a training module will be developed as below. The training will entertain a mixed approach of theory and group work in a participatory way.

The trainers/facilitators for the program will be from the MoFE, GCF-UNEP-NAP Project team, and expert consultants. The expert consultants will prepare the training materials according to the training module presented below. The detailed roles of the trainers/facilitators are presented in the Annex 1.

The training will have two modules as presented below.

**Module 1:** Climate Science, Climate Change, Impacts and Indicators of Changing Climate in Nepal and Initiatives on Climate Change (global and national)

**Module 2:** Climate Change Adaptation Theory, Climate Change Vulnerability and Risk Assessment Practice, Appraising and the Selection of Adaptation Options

*Table 3: Training Module*

<b>MODULE 1</b>	
<b>Objectives:</b>	
1. inform and sensitize the participants on climate change science and its impacts on sectors identified by the NCCP	



<b>2. global and national initiatives on climate change and in particular to climate change adaptation</b>		
<b>Session 1</b>	<b>Introduction to Climate and Climate Change (Science)</b>	
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Understand climate science and climate change</li> <li>• Understand the causes of climate change and global warming</li> </ul>	Video for 10 to 15 minutes and lecture for 45 minutes
<b>Session Content</b>		<b>Methodology</b>
1. Earth Climate System		PowerPoint presentation, video and lecture, question answer and storytelling
2. Greenhouse effect and energy balance		
3. Climate Change and global warming		
<b>Session 2</b>	<b>Climate Change Impacts and Indicators and Initiatives (global to national)</b>	
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Understand and describe climate change impacts in thematic sectors identified by the NCCP</li> <li>• Communicate the observed and predicted impacts of climate change in major sectors in Nepal</li> <li>• Describe national and international discourse of climate change</li> <li>• Develop discussions on climate change initiatives in Nepal</li> <li>• Develop discussions on climate change indicators at particular geo graphic and ecological zones</li> </ul>	
<b>Session Content</b>		<b>Methodology</b>
1. Climate change impacts at global and national level <ul style="list-style-type: none"> <li>○ IPCC Special Report on 1.5 and its implications in South Asia and Nepal (Particularly in Nepal)</li> <li>○ Observed climate change and scenario for Nepal</li> </ul>		PowerPoint presentation, video and lecture, question answer and experience sharing
2. Climate change hotspots		
3. Climate change impacts and indicators in sectors identified by NCCP		
4. Climate Change initiatives from global to national level <ul style="list-style-type: none"> <li>• UNFCCC and its process</li> <li>• Climate change initiatives in Nepal (Policy frameworks and programs) <ul style="list-style-type: none"> <li>○ Climate change policy</li> <li>○ NAPA</li> <li>○ NDC</li> <li>○ CC budget code</li> <li>○ National communications</li> </ul> </li> </ul>		

<ul style="list-style-type: none"> <li>○ Paris agreement</li> <li>○ LAPA framework</li> <li>• NAP process</li> </ul>		
<b>MODULE 2</b>		
<b>Objectives:</b> <ol style="list-style-type: none"> <li>1. Build conceptual understanding of the climate change adaptation, adaptation theory and practice</li> <li>2. transfer knowledge and skills on CCVRA based on the framework and methodology developed by Nepal NAP process (adapted from AR5 WG II report of IPCC 2014) and sharing of the outcome of the CCVRA</li> <li>3. Deliver knowledge, skills and techniques of appraising climate change adaptation options using multiple tools and present the framework for appraising adaptation options for Nepal's NAP</li> </ol>		
<b>Session 1</b>	<b>Climate Change Adaptation theory and practice</b>	
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Understand the theory of climate change adaptation</li> <li>• Explain climate change adaptation practices from global to national context</li> </ul>	
<b>Session Content</b>		<b>Methodology</b>
1. Climate Change Adaptation Theory	PowerPoint presentation, video and lecture, question answer and experience sharing (field observation on specified day)	
2. Climate Adaptation Practices from global to national		
3. Climate Change adaptation initiatives in Nepal		
<b>Session 2</b>	<b>Vulnerability and Risks Assessment Concepts and Methods</b>	
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Understand the state of climate change vulnerability and risks in different sectors in Nepal based on the CCVRA report</li> <li>• understand and develop knowledge and skills on vulnerability and risk analysis</li> <li>• Communicate and facilitate to conduct VRA based on defined indicators of hazards, exposure and vulnerability (sensitivity and adaptive capacity)</li> </ul>	
<b>Session Content</b>		<b>Methodology</b>
1. Concept of Vulnerability and Risk Assessment in Fifth Assessment Report of IPCC 2014	Power point presentation and lecture, question answer and group exercise	
2. Climate change exposures, hazards, sensitivity, adaptive capacity, vulnerability assessment and risks		
3. Assessment frameworks and process outlines		
4. Sharing of the CCVRA report		
<b>Session 3</b>	<b>Adaptation Planning Process: Adaptation Appraisal tools and methods and selection of adaptation options</b>	

<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Conceptualize the methods for adaptation appraisal (CBA, CEA and MCA primarily)</li> <li>• Acquaint with the framework for adaptation appraisal for Nepal's NAP process</li> </ul>	
<b>Session Content</b>	<b>Methodology</b>	
1. Adaptation Appraisal tools and methods	Group work, power point presentation and lecture, question answer	
2. Framework for Adaptation Appraisal for Nepal's NAP process	Group work	
3. Long listing of adaptation options for the climate change vulnerability and risks	Group work, presentation	
4. Prioritization of adaptation options for the future climate change vulnerability and risks as suggested by the CCVRA report		

## 7. Training Program

A draft training program considering the above presented training module is as below.

Table 4: Tentative Program Agenda

Days	7.00 to 9.00	9.00 to 10.30	10.30 to 12.00	12.00 to 13.00	13.00 to 14.20	14.20 to 14.30	14.30 to 17.00
DAY 1	Breakfast	<b>Introduction and Climate setting and Pre-Training Assessment</b>	<b>Session 1:</b> Introduction to climate and climate change (Science)	Lunch-Break	<b>Session 2:</b> Climate Change Impacts and Indicators and Initiatives (global to national)	Tea/ Coffee	<b>Session 3:</b> Climate Change Vulnerability and Risks Assessment Report Findings and what it implies for Nepal
DAY 2	Breakfast	<b>Session 4:</b> Climate Change Adaptation: Theory and Practice	<b>Session 5:</b> Climate Change Vulnerability and Risks Assessment Concepts and Methodology	Lunch-Break	<b>Session 5:</b> Continue	Tea/ Coffee	<b>Session 6:</b> Adaptation Appraising Methods (Cost benefit Analysis and Cost Effectiveness Analysis and Multi-criteria analysis)
DAY 3	Breakfast	<b>Session 7:</b> Practical Exercise on climate change vulnerability and risks and impacts in different sectors		Lunch-Break	<b>Session 8:</b> Practical Exercise on VRA and Risks interpretation (continue)		<b>Session 9:</b> Presentation of the Practical exercises
DAY 4	Breakfast	<b>Session 10:</b> Practical exercises on Adaptation listing and presentation of the exercises		Lunch-Break	<b>Session 11:</b> Prioritization of the adaptation options using economic tools and criteria (MCA) and presentation of the exercise	Tea/ Coffee	<b>Post Training Assessment and Closure of the Training</b>

## 8. Training Delivery Plan

The tentative training delivery plan involves the commencement of the training in Province 1 and concluding the training package in Sudurpashchim Province. The training could be organized between January and February, 2021. This tentative training delivery plan could undergo changes depending upon the situation in the country and the project itself.

Tentative Plan:

### A. Phase 1: Eastern of Kathmandu

Day 1:	Travel from Kathmandu to Province 1 (Biratnagar)
Day 2-Day 5:	Training in Province 1
Day 6:	Travel from Province 1 to Province 2 (Janakpur)
Day 7-Day 10:	Training in Province 2
Day 11:	Travel from Province 2 to Bagmati Province (Hetauda)
Day 12 to Day 15:	Training in Bagmati Province
Day 16:	Travel to Kathmandu

### B. Phase 2: Western of Kathmandu (after one week of rest and preparation)

Day 1:	Travel from Kathmandu to Gandaki Province (Pokhara)
Day 2-Day 5:	Training in Gandaki Province
Day 6:	Travel from Gandaki Province to Lumbini Province (Butwal)
Day 7-Day 10:	Training in Lumbini Province
Day 11:	Travel from Lumbini Province (Butwal) to Karnali Province (Surkhet)
Day 12 to Day 15:	Training in Karnali Province
Day 16:	Travel from Karnali Province (Surkhet) to Sudurpashchim Province (Dhangadi)
Day 17-Day 20:	Training in Sudurpashchim Province (Dhangadi)
Day 21:	Travel from Dhangadi to Kathmandu

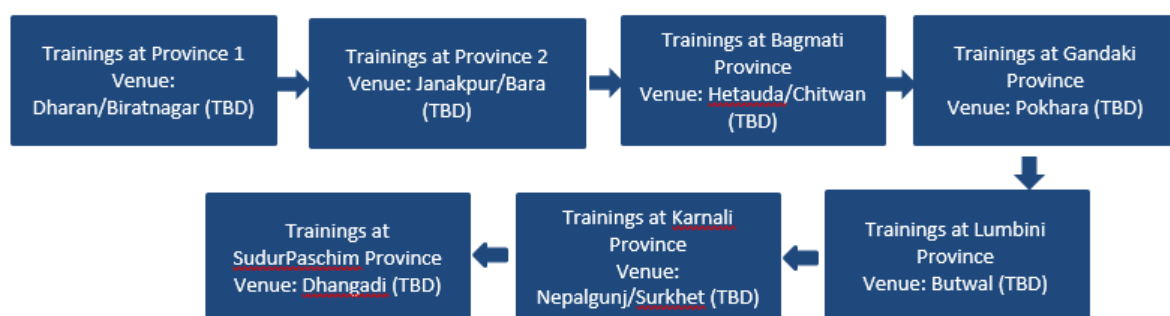


Fig 1. Tentative Training delivery plan in different provinces between March-May 2021

## Annex 1: Role of the Facilitator in the Training

The facilitators' role becomes important in achieving the stated objectives of each of the modules and sessions as presented above. Therefore, the facilitator should be acquainted with all the skills required to effectively deliver the content and engage the participants in each session effectively. The facilitator should forehand prepare for the training by managing the required materials in advance. Role of the facilitator according to different phases of training are explained below:

**1. Setting the tone and preparation:** All the required logistics mentioned below must be prepared in advance to conduct the training smoothly.

### **Checklist:**

1. Venue
2. Inaugural and closing session content, guest, protocols etc.
3. Logistics arrangements (Food, refreshments, accommodation)
4. Participants' list
5. Stationery
6. Co-facilitators/Experts
7. Work plan
8. Power supply
9. Training materials and equipment

**2. Pre-test evaluation:** In order to understand the knowledge base of the participants about the subject matter, a pre-test evaluation must be developed and conducted before starting the training program on the first day of the training.

**3. Training Sessions:** After the formal start of the training (if the inaugural session exist), the facilitator should;

- Promote informal learning environment/settings
- Ensure proper breaks after each of session so as to maintain the learning momentum and interest of the participants.
- Promote interactions and insist participants for their active engagement
- Ensure refreshment activities within certain time intervals and engage participants in the refreshment activities
- Ensure the co-facilitators/experts in each session well in advance.

**4. Post evaluation:** At the end of the training, a post-evaluation test has to be conducted to get a picture of the participants' knowledge and their learnings from the training. The result has to be compared with the initial test.

**5. Feedback collection and closing of the training:** A feedback form should be developed and response has to be collected from the participants to understand how well the training was conducted. Based on this, the evaluation of the training has to be conducted and improved in further training if deemed necessary.

## Annex 2: Adaptation Listing Procedure

### Context:

1. Nepal is formulating the National Adaptation Plan (NAP) which will identify the medium-and long-term adaptation needs of the country based on analysis of current and future climate risks in different sectors identified by the National Climate Change Policy (NCCP)-2019. The entire process of NAP is being undertaken through a highly consultative and participatory approach involving multiple stakeholders across the three tiers of governance (federal, provincial and local).
2. Assessing and analyzing the state of climate change and variability and understanding the current and future climate change vulnerability and risks and impacts in key sectors (sectors identified by the NCCP) is imperative while formulating the medium-and long-term adaptation options.
3. Preparing a long-list of adaptation options during the Provincial Capacity Building Trainings through a group work is important to expedite the NAP process, as these options will undergo an economic appraisal for their prioritization. Therefore, a structured process/procedure to produce a long list of adaptation measures is desired that will help to effectively collect the existing and required adaptation options in the field.

### Procedure/steps to develop a long list of adaptation options/measures:

Generating a long list of adaptation options/measures is a first step towards developing a prioritized list of adaptation options/measures for medium-and long-term. Therefore, it is imperative to generate a detailed list to ensure that while prioritizing those lists using different economic tools (Cost-Benefit Analysis, Cost-Effective Analysis and Multi-Criteria Analysis), any intended and desired adaptation options are not missed. The following steps/procedure are envisioned to provide guidance and facilitate in generating the long lists of adaptation measures.

#### **Step 1: Sharing findings of the CCVRA report**

The findings of the CCVRA report developed for the NAP Process involving experts in different sectors/themes (all thematic sectors identified in the NCCP) should be shared as an initial step. The team involved in preparing the report shares the key findings of the assessment and analysis of the current and future vulnerability and risks in each of the sector with the provincial stakeholders, and collect their feedback and input in the report.

#### **Step 2: Group Exercise on translating the risks to Impacts in sectors**

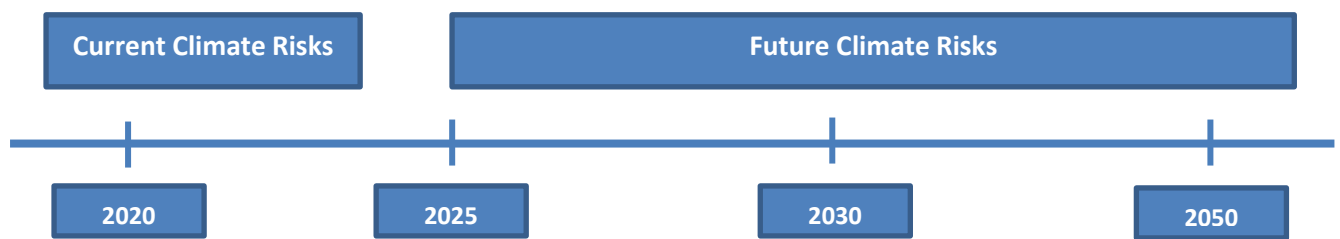
It is expected that the stakeholders in the provincial consultations are from different sectors and are experts in their respective areas. Once the team (MoFE and UNEP Nepal GCF NAP team) shares the assessment's findings, group work should be carried out to translate the current and future risks into the impacts it can have in each of the sector.

The temperature and precipitation trends and scenario and climate risk maps produced for each province will be shared with the participants in each province, along with the observed impacts in different sectors. With this information, the participants will further unpack the future risk in each of the sectors in the provinces, and identify the impacts and devise adaptation options accordingly. Thus, produced adaptation options will be shared with all the participants (Group will be formed as per the National Climate Change Policy 2019) for feedback and input. After the

generation of the long list of adaptation options, the group will thoroughly work on developing a comprehensive list of adaptation projects (bundling the already generated adaptation options) for medium-and long-term at the province. Henceforth, developed adaptation projects will undergo rating by the group for the prioritization of the adaptation projects. For the rating, the group will be provided with hundred coins of rupee 1. The minimum point that can be provided for the projects is 2, whereas the maximum point is 98. The scores for all the projects idea being compared must add up to 100. After the rating is completed, the reason for the rating has to be provided by the group. Thus, completed exercise will be left in the table for the idea market.

Once, the group completes the rating of the 10 adaptation projects, the group exercise facilitator will provide 5 votes (sticker) to each of the participants of the workshop. The open voting among the participants with 5 each individual vote, will be conducted. Each individual can have their vote in the group work of prioritized adaptation option except their own group. Doing this, a strategized list of adaptation measures is expected to be developed for the province. The highest voted adaptation project will be the highest prioritized project for the province for the medium-and long-term.

The group work template is presented as below:



IMPACTS on Different Sectors							
Agriculture and Food Security	Forests, Biodiversity and Watershed Conservation	Disaster Risk Reduction and Management	Health, Drinking Water and Sanitation	Industry, Transport and physical Infrastructure	Rural and Urban Settlements	Tourism, Natural and Cultural Heritage	Water Resources and Energy
1. ....	1. ....	1. ....	1. ....	1. ....	1. ....	1. ....	1. ....
2. ....	2. ....	2. ....	2. ....	2. ....	2. ....	2. ....	2. ....
3. ....	3. ....	3. ....	3. ....	3. ....	3. ....	3. ....	3. ....

Group work will also focus on gender specific impacts in each of the sector.

### **Step 3: Identifying and listing of Adaptation measures for short, medium and long-term**

Once the impacts are discussed and identified through group work, the group further list out the adaptation measures currently under implementation in the field in different sector. In addition, the short, medium and long-term adaptation measures will be discussed and listed from the group work. Short term adaptation measures mean the urgent adaptation interventions, whereas medium-term means the adaptation intervention required for a period of time more than a year and up to 10 year. On the other hand, the long-term adaptation measures mean the adaptation interventions for a longer period of time beyond 10 years from the current time period. In order to list the adaptation measures, the following template could be followed:

Thematic Area	Climate Change Vulnerability and Risks (Informed by Climate Change Scenario)		Adaptation measures to address the risks and impacts		
	Current Risks and Impacts	Future Risks and Impacts	Short term	Medium term	Long-term
Agriculture and Food Security (Sub thematic areas)	Eg. Production of paddy decline by XX%%	Eg. Paddy production to decline by XX %	Eg. System of Rice Intensification	Eg. Development of new stress tolerant rice varieties	Eg. Change in farming practice (if paddy production is unviable shift to new crop varieties that can cope with the impacts)
Forests, Biodiversity and Watershed Conservation					
Disaster Risk Reduction and Management					
Health, Drinking Water and Sanitation					
Industry, Transport and Physical Infrastructure					
Rural and Urban Settlement					
Tourism Natural and Cultural Heritage					







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