Capacity Gap Assessment Report of the Thematic/ Cross-cutting Working Groups

Government of Nepal

Ministry of Forests and Environment

Building Capacity to Advance 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."

Acronyms

ACT	Action on Climate Today
CC	Climate Change
CCA	Climate Change Adaptation
CSO	Civil Society Organization
CWG	Cross-Cutting Working Group
GCF	Green Climate Fund
GoN	Government of Nepal
GESI	Gender and Social Inclusive
IPCC	Intergovernmental Panel on Climate Change
LDC	Least Developed Country
MOALD	Ministry of Agriculture and Livestock Development
MoEWRI	Ministry of Energy, Water Resources and Irrigation
MoFAGA	Ministry of Federal Affairs and General Administration
MoFE	Ministry of Forests and Environment
MoHA	Ministry of Home Affairs
MoHP	Ministry of Health and Population
MoITFE	Ministry of Industry, Tourism, Forests and Environment
MOPE	Ministry of Population and Environment
MoUD	Ministry of Urban Development
MoWCSC	Ministry of Women, Children and Senior Citizen
NAP	National Adaptation Plan
NBSAP	National Biodiversity Strategy and Action Plan
PC4	Provincial Climate Change Coordination Committee
SDG	Sustainable Development Goals
TWG	Thematic Working Group
UNFCCC	United Nations Framework Convention on Climate Change

Summary

Inbuilt and acquired capacity are important element for the organizations and stakeholders engaged in the National Adaptation Plan formulation process. To develop and retain such capacity is a great challenge in all development sectors in Nepal, where resources for capacity strengthening is limited and ignored. An important first step to enhance capacity is to understand the level of existing capacity within the organization and individual. Only after that, capacity gap and need can be subsequently identified. And with a critical realization of need and potential resources, including above mentioned factors, capacity development plans can be produced. In the context, this UNEP GCF NAP formulation process in Nepal, which builds on the learning and experiences of previous NAP process (ACT financed, 2015 started), means certain knowledge and capacities have been inhered from the former NAP process to overall support the NAP formulation process and future NAP implementation plans.

This report is the outcome of the capacity assessment of the members of the Thematic /Cross-cutting Working Groups of different corresponding Ministries that are currently engaged in the NAP formulation process. These members are also the frontlines to implement different activities related to climate change in their thematic sectors in Nepal. The report is exclusively articulated on information speculated in the thematic stocktaking reports (NAP I project) along with the preliminary consultations and survey with the members of thematic and cross-cutting sector working group. In order to do this, capacity gap assessment survey checklist was circulated to the members of TWG/CWG. Additionally, a qualitative analysis of obtained information was done to pave further ways for national capacity development intending to integrate climate change adaptation in sectoral policy/plan/strategy. Besides that, the detail capacity assessment has been performed and elaborated through five elements of capacity in this report. It includes: (i) the level of understanding of climate change adaptation, (ii) inbuilt individual and institutional capacity to work on climate change discourse, (iii) availability and quality of information on climate change adaptation, (iv) cooperation

and coordination of stakeholders and (v) critical capacity gaps and needs. In a nutshell, with the limited capacity of government officials, their interest in climate discourse with long term vision is still lacking at the national level.

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CHAPTER I: INTRODUCTION

1.1 Background

The Cancun Adaptation Framework (CAF), 2010 opened a window of opportunities to address medium and long-term adaptation needs in the developing countries (both LDCs and non-LDCs). The CAF emphasized, *inter alia*, to: (i) plan, prioritise and implement adaptation actions; (ii) undertake impact, vulnerability and adaptation assessments; (iii) strengthen institutional capacities and enable environments for adaptation, including climate-resilient development and vulnerability reductions; and (iv) perform actions related to building resilience, including data, information and knowledge system, climate-related research and systematic observations etc. Furthermore, the Parties established a process to enable LDC Parties to formulate and implement national adaptation plans (NAPs), building upon their experience in preparing and implementing NAPAs, as means to identifying and implementing medium- and long-term adaptation needs. In addition, the Parties established the Adaptation Committee allocating it with multiple functions and responsibilities, to promote the implementation of enhanced action on adaptation. The COP16 in 2010 has extended the mandate of the LEG to provide technical guidance and advice to LDCs, on matters related, inter alia, to needs.

The Durban decision outlined four key elements (Lay the groundwork and address the gaps; Preparatory elements; Implementation strategies; and Reporting, monitoring and review) and several steps, which may be undertaken as appropriate. The CoP17 also agreed to enhance the process by following country-driven, gender sensitive, participatory and fully transparent approach, taking into consideration the vulnerable groups, communities and ecosystems. It should equally consider the best available science, and as appropriate, traditional and indigenous knowledge and should not be prescriptive, avoid duplication of efforts, and rather facilitate country-owned and country-driven actions. In order to do this, capacity building at different tiers and level is necessary for government, stakeholders and actors engaged in this process.

1.2 The NAP process in Nepal

Nepal started the formulation of the National Adaptation Plan (NAP) adhering to the Cancun Adaptation Framework (CAF)[1], to identify the medium and long-term adaptation needs of the country. The Government of Nepal, building on the experiences of NAPA formulation and implementation,

[1] 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.

started the process through a multi-sectoral working group approach and having 'leave-no-one behind' as the guiding principle[2]. The then MoPE led Nepal's NAP formulation process, which was launched in September 2015, however, kick-started from May 2016, with the objectives to reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience; and to facilitate the integration of climate change adaptation, in a coherent manner, into relevant new and existing policies, programmes and activities, in particular, development planning processes and strategies, within all relevant sectors and at different levels, as appropriate. The process was supported by the Action on Climate Today (ACT), a UK-Aid funded initiative.

For the then NAP process, nine sectors/areas[3] were identified. The nine working groups (seven thematic and two cross-cutting) were formed and led by the concerned ministries. The thematic working groups include (i) forests and biodiversity; (ii) agriculture and food security (including nutrition); (iii) water resources and sanitation; (iv) public health (including water and sanitation); (v) climate-induced disasters; (vi) urban settlements and infrastructure; and (vii) tourism, natural and cultural heritage, whereas, the cross-cutting working groups include the Gender and Social Inclusion; and Livelihoods and Governance. These groups were engaged in identifying, selecting and prioritizing adaptation options through the NAP process; integrating climate change adaption into existing and new policies, programs and activities; and coordinating all steps of the NAP process for the respective theme or cross-cutting area, taking into account, the national development context and international commitments, such as the SDGs.

1.3 The Changing Context

The thematic and cross-cutting working groups established in the first phase of the NAP process, followed from the NAPA experience, needed to evolve with the changes in the government structures, as well as to reflect on what the process aims to achieve in the next phase. With the change to the Ministries, different working groups required to be updated to reflect the new structure. Also the National Climate Change Policy 2019 has provision for the revision of thematic and cross-cutting groups as per the new structure. This policy has addressed the need to establish Inter Ministerial Climate Change Coordination Committee (IMCCCC) at federal level and Provincial Climate Change

[2] NAP Approach Paper, 2016

[3] 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

Coordination Committee (PC4) at province level for coordinating climate change affairs between different tiers of government.

In the above context, UNEP is executing the Green Climate Fund (GCF) funded project entitled **"Building Capacity to Advance National Adaptation Plan Process in Nepal"** to support Government of Nepal since mid of 2019. This project supports the Climate Change Management Division of the Ministry of Forests and Environment to reduce vulnerability to climate change, and increase resilience through integration of climate change adaptation into development planning processes. Therefore, this phase of NAP includes revisiting the themes and cross-cutting issues and making adjustments to the changing context, identifying gaps in the working groups and filled by new members.

According to the National Climate Change Policy 2019, the identified themes include: 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 Infrastructure vi) Rural and Urban Settlements vii) Tourism, Natural and Cultural Heritage viii) Water Resources and Energy ix) Gender and Social Inclusion, Livelihood and Governance x) Awareness and Capacity Building xi) Research Technology Development and Transfer and xii) Climate Finance Management to be considered for overall climate change action in Nepal. The TWGs and CWG are led by their respective coordinating Ministries (federal). Till date, 7 TWGs and 1 CWG has been formed and remaining one in the process of formation. It is expected that by enhancing and building capacity of these groups; among many role and their responsibilities, climate change adaptation will be integrated into sectoral policies, plans and programs.

The advancement of how these thematic groups have evolved during the phase of NAPA and NAP formulation till date is illustrated in the below table:

NAPA 2010	NAP 2015	National Climate Change Policy 2019	Coordinating Ministry (for NAP formulation 2020)
1. Agriculture and Food Security	1. Agriculture and Food Security	1. Agriculture and Food Security	Agriculture and Livestock Development
2. Climate Induced Disaster	2. Climate Induced Disaster	2. Disaster Risk Reduction and Management	Home Affairs
3. Urban Settlement and Infrastructure	3. Urban Settlement and Infrastructure	3.Urban and Rural Habitats	Urban Development
4. Public Health	4.Public Health, Sanitation and Hygiene	4.Health, Drinking Water and Sanitation	Population and Health; and Water Supply
5.Forests and Biodiversity	5.Forests and Biodiversity	5. Forest, Biodiversity and Watershed Conservation	Forests and Environment
6.Water Resources and Energy	6.Water Resources and Energy	6.Water Resources and Energy	Energy, Water Resources and Irrigation
Not Any	7.Tourism, Natural and Cultural Heritage	7.Tourism, Natural and Cultural Heritage	Culture, Tourism and Civil Aviation
Not Any	Not Any	8.Industry, Transport and Physical Infrastructure	Physical Infrastructure and Transport; and Industry, Commerce and Supplies
7.Livelihood and Governance	8.Livelihood and Governance	9.Gender Equality and Social Inclusion; Livelihood and Governance	Women, Children and Senior Citizen; Federal Affairs and General Administration
8.Gender and Social Inclusion	9. Gender and Social Inclusion	10. Gender and Social Inclusion; Livelihood and Governance	Women, Children and Senior Citizen; Federal Affairs and General Administration
Not Any	Not any	11. Climate Finance Management	Finance
Not Any	Not Any	12. Awareness and Capacity Building; and Research, Technology Development & Transfer	Forests and Environment

1.4 TWGs/CWG engagement in the NAP

Each thematic/cross-cutting working group is chaired by the Joint Secretary of the concerned ministry. Likewise, the Under Secretary and Officer of the same Ministry are designated as the Deputy Coordinator, and the Member Secretary, respectively. The Ministry of Forests and Environment (MoFE) together with the project ensures the overall engagement and provides coordination support in responsive and flexible manner across identified thematic/crosscutting working groups lead by the respective line ministries. The working group engages in collating and validating climate information in the area/sectors, assessing capacity gaps and needs, climate risk and vulnerability of the areas/sectors and listing of the climate change adaptation options for the NAP document. Along with the NAP document, MoFE aims to design strategies for its financing, implementation, monitoring and evaluation, as well as reporting and plans for collaboration across sectors where the contribution of the TWGs/CWGs will be very crucial.

1.5 TWGs'/CWG's capacity building

Institutional and individual capacities are important factor for climate change adaptation planning and implementation. Moreover, such capacities are a challenge in a developing country like Nepal, where both financial and human resources are limited and investment in capacity building is rarely a priority. However, capacity enhancement in order to prepare the community for the adoption, engagement and implementation of medium and long-term adaptation plans speculated in the NAP is the first step towards capacity accumulation through an understanding of the level of existing capacities; only after that imminent priorities can be subsequently identified and work plan can be developed.

In our case, the systematic framework is already in place to deal with climate change discourse. For instance, the Thematic Working Groups (TWGs) and CWG are in place, to coordinate within their corresponding ministries. However, in order to engage them in the NAP process, the existing knowledge and capacities in both phases – during the preparation and implementation of the NAP – are not sufficient. In this context, capacity building of the TWGs/CWG members becomes necessary to fulfil their function in climate affairs (climate change adaptation, climate risks, integration into policies/plans, budgeting, monitoring etc.). This capacity gap and need analysis therefore serves as basic information to fill the gap with regard to the NAP formulation.

1.6 Objective of the task

The main objective of the task is to carry out capacity gap analysis of TWGs/CWG members in order to develop a vision of the desired capacity to integrate adaptation measures into national and sub-national development. Therefore, capacity to fulfil the NAP objectives is required in collaboration with concerned sectors and cross-sectoral agencies facilitating to integrate adaptation actions into different sectoral policies/strategies/action plans and to allocate resources at all three levels of government for climate resilient development pathways.

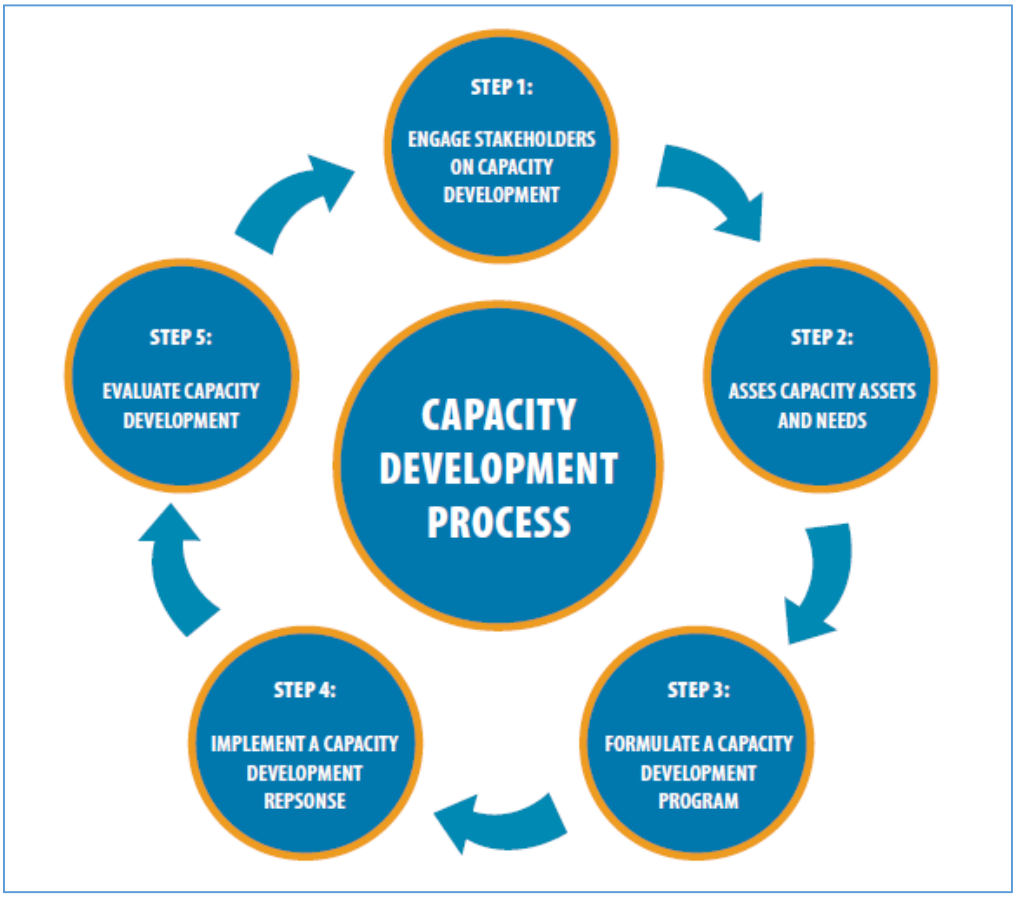
1.7 Limitation of the report

This report entails the detailed capacity of TWGs/CWG corresponding institutions and is limited to illustrate capacity of different TWGs/CWG members. The report does not cover achievements regarded to NAPA and its different outlined projects. The report briefly touches on the national capacity at the interface of international negotiation under the UNFCCC process, country's capacity for the NAP formulation and its subsequent implementation.

CHAPTER II: CAPACITY BUILDING FUNDAMENTALS

Capacity development fundamentals: Capacity should be defined in terms of function and performance at all levels - individual, organisational (network/sector) and institutional. So, whatever level is considered, the assessment process must begin by understanding what the capacity is needed for. An appropriate assessment of existing capacity and capacity needs can only take place if these background factors are clear and understood (http://www.lencd.org/learning/how-assess-existing-capacity-define-capacity-needs).

Capacity development in a cyclic process is included herewith. The cycle describes four core issues that have the greatest influence on capacity development at different levels: institutional arrangement, leadership, knowledge and accountability. The capacity development is an integrated system with a favourable environment for organizations, within organizations (internal structure, policies and procedures) and for the individuals who work for the organization with reference to their skills, experience and knowledge. The five steps of the capacity development process is shown as below and illustrated as follows:



(Source: UNDP, 2009. Capacity Development: an UNDP Primer)

STEP 1: ENGAGE STAKEHOLDERS ON CAPACITY DEVELOPMENT: During this step, who is and who is not considered as stakeholder in capacity building work will clearly have an impact both on the process and outcomes. So, choosing the right stakeholder for the purpose becomes equally important. For the NAP formulation and its subsequent implementation in the country, the MoFE together with the UNEP NAP project is engaging a wide range of stakeholders at the national and sub-national level. The cross-sectoral ministry at the federal level and different provincial government agencies are stakeholders to be engaged on capacity development.

STEP 2: ASSESS CAPACITY ASSETS AND NEEDS: This step is to identify the existing knowledge, skills, technical know-how in the organization/individual (known as stakeholder). It is also important to assess the gap and individual capacity to learn. With regard to the NAP formulation in the country and its subsequent implementation, assessment of capacity assets and needs has been done and the findings are included herewith the report.

STEP 3: FORMULATE A CAPACITY DEVELOPMENT PROGRAM- After the output of step 2, it is imperative to design a detailed package of capacity building program based on the type of stakeholder and their capacity gap. Capacity development program can be conducted in a number of ways, such as short-term non-academic course on the subject matter, action learnings visits, short and long-term training courses, etc. In our case, the GCF NAP project will engage the target members of the corresponding ministries by delivering a short-term capacity building training on climate change discourse.

STEP 4: IMPLEMENT A CAPACITY DEVELOPMENT RESPONSE- In this step, the role of the change agent becomes important. The change agent hereinafter is referred to those who is involved and engaged in a capacity development response, which may include donor organizations, NGOs/projects, experts, technologists, etc. Their role in this process is to decide what to do and how to design capacity building interventions, what skills needed for capacity development, and to know where these skills reside.

STEP 5: EVALUATE CAPACITY DEVELOPMENT- Evaluation is highlighted as an essential element of effective capacity development, it is a measuring of impacts and outputs towards understanding what is working and why. Evaluation should be done as a process of continuous improvement. Otherwise, there will be a broken learning cycle. In our case, post training evaluation will be conducted after completion of the capacity building training.

Need for Climate Change Adaptation integration: The need to integrate or mainstream climate change adaptation into development planning and in decision-making processes has become increasingly apparent. It is often a top-down approach to mainstream or integrate CCA into development planning and with the general recognition of the linkages between development and climate change adaptation and their significance as reflected in the following aspects:

i. The scientific evidence on climate variability and change;

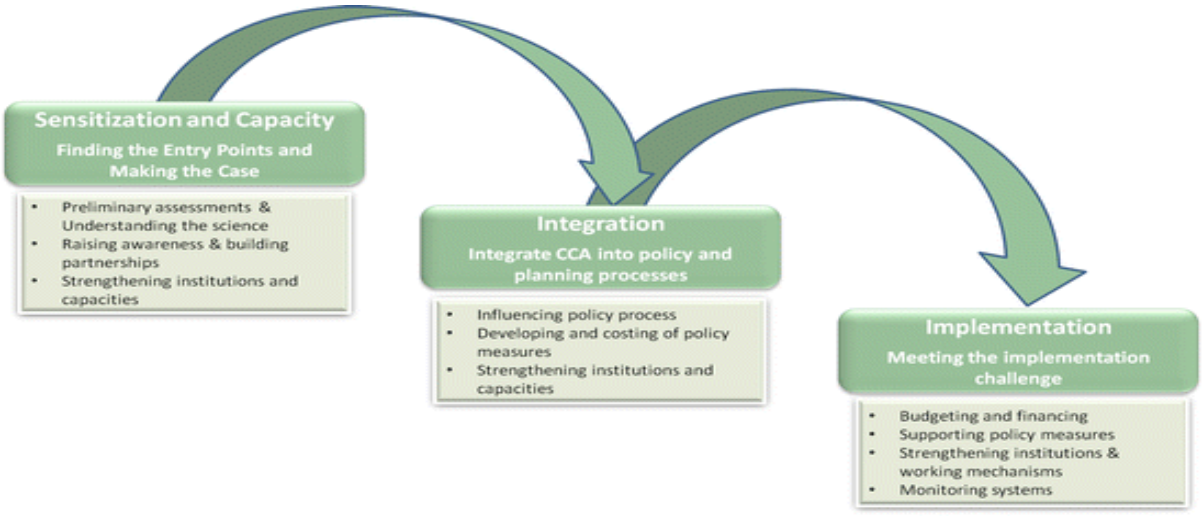
ii. The observed current and projected future impacts of climate variability and change on natural as well as socioeconomic systems;

iii. The increasing knowledge and wealth of studies on how such impacts may jeopardize the results and impacts of many development efforts and further compromise the achievement of key development goals, including the Sustainable Development Goals (SDGs);

iv. The concern that development activities may lead to 'maladaptation' – an increase in exposure and/or vulnerability to climate change – either by overlooking climate change impacts, or by undertaking climate change adaptation actions that fail to adequately address the impacts of climate change; and

v. The recognition that development activities targeting and alleviating the root causes of vulnerability, and increasing the adaptive capacity of individuals and societies in general, have positive implications for climate change adaptation – even in cases where climate change has not been explicitly considered. By integrating climate change, the synergies between development and adaptation cannot go together.

The figure illustrates the entry point and making cases for the CCA integration into policy and planning processes.



CHAPTER III: METHODOLOGY

The report is largely based on the qualitative methods. The following methods and tools were used to assess the capacity at the national level.

i. **Country's capacity assessment:** With a view to understand country's capacity, consultation were held with experts and individuals who were involved at the national level climate change discourse for a longer period of time. The individuals and experts include high level government official at then MoPE, expert involved at the negotiation process at the UNFCCC and individual expert involved in the NAP process. Name of the experts that were consulted for the same is included in the Annex. Experts input were expected in the following areas: a) National Capacity at the interface of International negotiation (UNFCCC process), b) National Capacity for the National Adaptation Plan formulation, and c) Areas where capacity is needed to increase for the NAP formulation and its subsequent implementation.

ii. **Individual capacity assessment of TWGs/CWG members**: The capacity gap assessment was largely based on i) identifying existing capacity of individual in place (management and technical); ii) locating these skills-sets at different implementation level (policy and implementation); and iii) identifying the gaps where additional capacity/skill development is required. A semi-structured checklist for capacity assessment was prepared and is included in the Annex.

The checklist was then put forward to all members of these thematic groups by either email, personal visits or through telephonic conversation. After that, the obtained information was analysed to reflect on a qualitatively basis to generalize for the entire member of each thematic group, though sample representation was taken. Finally, report on key capacity gaps and needs was prepared on the basis of available knowledge, member consultations, and nonetheless on the basis of thematic working group's meeting outcomes.

iii. **Institution capacity assessment:** Similarly, capacity of TWGs/CWG corresponding institutions in relation to climate change was also assessed. In order to do so, a matrix was designed that included different indicators, including adequate human resources, collaboration with different sectors, financial resources, technology etc. A matrix of the same is attached in the Annex. The matrix was then sent to climate change focal person of each corresponding ministries. Due to the prevailing

situation, no meetings could be held to call upon all the stakeholder institutions and government actors to share the objective of the work and fill in the given matrix. The interpretation was done based on the past capacity assessment reports of the corresponding ministries, produced by the NAP project executed by then MoPE. Climate change capacity gap of TWG members' is categorized and interpreted as follows:

Theme	**Description**	**Category**
a. Climate, Climate Science, Impacts, Indicators, Initiatives b. Nepal's initiatives on climate change, climate change adaptation c. Vulnerability Risk Assessment- Theory & Practice d. Adaptation- Theory & Practice & Planning e. Gender integration into CC	The members of TWGs/CWG all aware on given themes a, b, c, d and e. CCA recognized by corresponding institutions and partly mainstreamed into their policy/plan/program	**High capacity/satisfactory level**
f. CCA mainstreaming into Policy/Strategy/Plan	The members of TWGs/CWG all aware on given theme a, limited knowledge in given theme b, c & d. CCA neither mainstreamed nor integrated into their policy/plan/program	**Medium capacity/Moderately satisfactory level**
	The members of TWGs/CWG very limited aware on CC and lack knowledge & capacity on given theme b, c, d, e & f.	**Low capacity/low satisfactory level**

CHAPTER IV:FINDINGS

The findings of capacity gap assessment of each TWG and CWG is illustrated as separate heading highlighting on the overview of the corresponding institutions, capacity gap (individual and institutional) and need to address the gap. The limitation of this chapter is that each capacity assessment findings is being differently portrayed.

Nepal's climate capacity with respect to the NAP formulation has been illustrated as follows:

Country's Capacity on CC, CCA and the NAP formulation

i. National capacity at the interface of international negotiation (UNFCCC process)

Not all developing countries have sufficient capacities to address many of the challenges brought by climate change and the importance of building the capacity of these countries to effectively combat climate change. These issues has long been recognized by the negotiating parties, through the Convention (1992), Kyoto Protocol (1997) and most recently the Paris Agreement (2015). In this regard, developed countries provide financial and technical resources to assist developing countries in implementing the frameworks on capacity-building and report on the provision of capacity-building support in their biennial reports to the UNFCCC.

At the same time, many developing countries report persisting capacity gaps of government staff and insufficient institutional capacities, including gaps related to inter-agency and cross-sectorial coordination. Furthermore, countries report capacity needs related to mainstreaming climate considerations into their national planning and budgeting. Developing countries also stress the need to strengthen the capacities of local governments and communities, particularly for adaptation. With an emergence of new capacity needs in areas, such as the implementation of the nationally determined contributions (NDCs), transparency, REDD-plus and climate finance, the Government of Nepal has recognized it needs for international financial and technical assistance to achieve climate compatible development, which requires the government to engage more strategically and effectively at the international level to raise awareness on the needs and priorities of the government and further ensure that the UNFCCC policies and funding instruments will be of benefit to Nepal.

Nevertheless, Nepal had taken the opportunity to lead the LDC group in COP 19 in Poznan, Poland in 2013 and COP 20 in Marrakech, Morocco in 2014. The leadership was well acknowledged by the

group. However, prior to taking the leadership role, Nepal also supported the LDC group in the negotiations of the NAP process. The group through the LDC expert group (LEG) also was able to put in place a NAP guideline for assisting LDCs in the process of developing their National Adaptation Plans (NAP). Nepal is also a current member of the group, representing Asia. With all these achievements, at this stage, Nepal still needs key personnel/individuals for climate change discourse at the international negotiation (UNFCCC process).

With the ratification of the Paris Agreement, countries also have agreed to submit an NDC (Nationally Determined Contributions) in line with the rulebook that was negotiated in 2018 in Warsaw. Nepal also recently submitted its second enhanced NDC under the Paris Agreement for the period 2021-2030, following other relevant provisions of the Paris Agreement. Before, the process of developing its NDC had been delayed by the COVID-19 pandemic.

In addition to the NDC, the Paris Agreement also mandates countries to submit an Adaptation Communication that builds on the NAP and NDC and the efforts and has productively negotiated on behalf of the country and supporting LDC interests. There are now substantial national capacities to engage in the UNFCCC process and a good understanding of the process and issues than there was in the past. However, capacities continuously need to be enhanced and government staff tend to be transferred.

Based on Nepal's capacity, Nepal was elected to the Chair of the Adaptation Fund Board in March 2016 after serving as a board member in 2015. Nepal continues to lead the vision of innovation and the support for climate vulnerable communities as key for adaptation funding from the Adaptation Fund and gives continuity to financing new projects.

ii. National capacity for the National Adaptation Plan formulation

Nepal started to engage on the NAPs process in 2013, but the process kicked off more formally in line with the NAP guidelines in 2015. However, after the NAP process was launched, Nepal was only able to develop a roadmap for the NAP, followed by the development of a framework for vulnerability and risk and its indicator, publishing of a synthesis of stocktaking report, taking note of observed climate risks (1971-2014) and projection of climate trend scenarios 2030-2050, but the nation could not complete the NAP document. Thankfully, additional funding was granted by the Green Climate Fund through the technical assistance of the United Nations Environment Programme (UNEP). But, the

funding was very much delayed. However, after the completion of the necessary processes, Nepal is now in the process of developing its NAP.

Building on the learning and experiences of the NAPA, Nepal through the second phase of the NAP project aims to reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience, and by facilitating the integration of CCA into the development planning. Subsequently, after the NAPA formulation, there has been more climate champions at the national level, which can be recognized by the execution of the flagship projects, including the NCCSP and PPCR. The climate discourse now has been project-driven rather than the government-driven. Now, the climate arena focuses on the NAP formulation for which the capacity building at different government level becomes necessary. With the limited capacity within the government officials, the interest in climate discourse with long-term vision is still lacking at the national level, further creating a void in benefits and in Nepal's recognition at an international level. At this stage, the need for the NAP formulation has not been fully recognized by all levels of government. Though, MoFE has already facilitated the formation of TWGs and CWG at the federal level, these institutions are yet to be fully functional to internalize the NAP formulation, its objective and its implementation within their institutions. Furthermore, awareness raising, capacity building (both of institutions and individual) at the provincial and local level becomes necessary for the NAP to become fully recognized. Therefore, building capacity with regard to the need for medium and long-term adaptation options is crucial. Overall, capacity building during the NAP formulation process becomes an important agenda also to integrating and budgeting CCA into sectoral plans/programs for the future NAP implementation.

iii. What is needed to increase the capacity for the NAP formulation and its subsequent implementation?

Since policies are formulated at the national level, but in the decentralized governance structure, the plans limitedly end up being implemented. Capacities at the national level have by far grown to understand the science of climate change. But key capacity gaps still lie as to how to predict climate change to these in terms of local sectoral impacts. A trend and risk analysis are very important to identify the sectoral impacts. But because climate change is very unpredictable and unprecedented, these have to be further downscaled to local levels so that local governments can mainstream them in the local plans and policies and promote its engagements with partners. If not, adaptation will end up like small projects, having only short-term impacts.

The Government of Nepal initiated the LAPA. A framework was also developed, which was a good beginning to sensitize local actors on climate change adaptation, but an underlying key gap between

all these was the lack of establishment of the foundation of physical climate science. Many adaptation projects were based on social science and anecdotal evidences. Having said that, there is no doubt that the social science approach is a good one, but it should be further backed by the physical science to integrate the understanding and designing of programs across the sector. Thus, building the NAP on social and physical science will be the key.

Moreover, since the national capacities on forecasting exist at the national level at the Department of Hydrology and Meteorology (DHM), the trend analysis and risk assessment should be taken up continuously to inform the revision of the NAP, given that climate change is unpredictable. Annual funding should be allocated sufficiently.

Furthermore, to ensure the effective implementation of the NAP, these capacities also need to be transferred at the local level so that appropriate information can be provided on a timely basis to local communities, through appropriate means of communication tools and local adaptation practices recommended. An information system should also be set up to provide information on a bottom-up level so that the experiences and data can inform the future revision of the NAP. Along with that, a monitoring and evaluation mechanism should also be in place to understand and interpret the effects of the adaptation programs as to whether it has contributed to building resilience or more adaptation programs need to be supported to achieve climate resilience. To put all these in place, easy capacities to access and mobilize funds in a timely manner for implementing NAPs will also be the key.

The thematic and cross-cutting and corresponding institution capacity gap and needs with respect to different indicators is illustrated as follows. The findings cannot be generalized for all thematic and cross-cutting groups.

4.1 Forests, Biodiversity and Watershed Conservation

The thematic area, "Forests, Biodiversity and Watershed Conservation" is led and coordinated by the Ministry of Forests and Environment (two Ministries merged in one after the federalization in the country). This Ministry is considered as one of the largest ministries. The members formed under this thematic group that is coordinated by MoFE, include a wide range of stakeholder ranging from development partners, indigenous group network and forest-based enterprise network. It is imperative to bring all, if not, the major stakeholders on the same page and develop common understanding on the NAP process and its anticipated outcomes. A detail capacity assessment exercise is expected to learn the existing conditions and future requirements related to climate change.

In reference to this thematic area, the members are comparatively well informed about climate change. Both technical and advocacy mandated human resources are exposed to the issues and opportunities of climate change. The UN agencies, bilateral agencies and the development banks all have institutional support for the programs required as a result of climate change. It can be considered as an outcome of not only the NAP process, but also the efforts of development partners and different projects implemented in this sector. The capacity related to climate change vulnerability along with mitigation and adaptation planning with this thematic sector is satisfactory in general. Overall, capacity of the members of this TWG and its corresponding institution was found to be satisfactory. However, a continuous engagement and knowledge and capacity of longer term planning is essential.

Capacity gaps

(i) Policy: There are considerable capacity development and information issues and gaps to be addressed in order to ensure climate change adaptation in this sector. Nepal's conservation policies have been designed at different levels of the government hierarchy and even though they have helped in environmental conservation and economic growth, there are also gaps that have hindered effective implementation. Some of the gaps include,

a. The lack of a policy to suitably prioritize the target group, especially poor, vulnerable and marginalized communities and for providing special facilities on the basis of the identity
b. The policy gaps for effectively addressing the emerging global challenges including climate change
c. The policy gap in the mechanism of benefit sharing between the state, developer and local communities on the use of local natural resources and
d. The occasional conflicts between policies and acts that tend to take a long time to resolve
e. Lack of reliable data on climate change impacts on forests and biodiversity, and dependent communities

(ii) Institution capacity: The institutional capacity of the corresponding Ministry is limited to imply: holistic and integrated approach, sustainable development focus, build effective multi-stakeholder mechanisms and multi-stakeholders participation. Other issues are the focus on a top-down approach in implementation, lack of effective monitoring mechanisms, and weak inter-sectoral and inter-agency coordination. These gaps have delayed decision making, leading to poor implementation, lack of an enabling environment for private-sector participation, poor compliance to environmental and social

safeguards in construction projects, inadequate devolution to local bodies as envisaged by decentralization policy, and inadequate resources (human and financial) and technology for effectively designing and implementing the adaptation actions.

Needs

Overviewing the main challenges for climate change adaptation in forests, biodiversity and watershed conservation through literature review and limited consultations with the key actors have raised several important issues, including, capacity to plan for newly emerging threats, coordination, organisational issues affecting adaptation at local levels, mainstreaming of adaptation into other policies and extra regional impacts.

a. In adaptation planning, one of the major issues with frontline managers is to prepare emergency plans for the threats posed by climate change. This is linked to the issue of access to funding, which is usually channelled through a number of mediating institutions. Resource constraints, as local offices are allocated business as usual responsibilities from the central level, dedicated capacity capsules are needed to address climate change additionalities.
b. Due to the long-term nature of adaptation planning, it is also important to extend horizons of mid-term and long term adaptation options. Such a long-term approach requires more convincing arguments from the policymakers in order to get stakeholders' support. In this context, climate change projections, modelling and emissions scenarios can play a potential key role in helping visualise the impacts in the longer basis. Decision support tools that allow access to climate scenarios at the end of the century can trigger effective policy measures on adapting the forestry, biodiversity and forest dependent household to prepare for adverse climate impacts. The National Biodiversity Strategy and Action Plan (NBSAP) and SDG are in place which has speculated a medium to long-term actions. Therefore, it is an opportunity to develop the NAP in coherence with those strategic documents so the sectoral institutions and actors need to be prepared for expected outcomes.
c. There is a need to address the challenges of mainstreaming of adaptation into other policy areas. This is despite the fact that climate adaptation measures can be viewed, as integrating factors in terms of:

- A management cycle of deciding on objectives, looking at options, evaluating, making decisions, monitoring and review

- Short-term emergency planning as well as responding to long-term changes such as prolonged droughts, forest transformation, and wildlife translocation
- Land use and development to support biodiversity and avoid overheating

4.2 Agriculture and Food Security

The thematic area, "Agriculture and Food Security" is led and coordinated by the Ministry of Agriculture and Livestock Development. This Ministry is considered as one of the major ministry with regard to its extension program reaching the poor and vulnerable communities. The members formed under this thematic group that is coordinated by MoALD include a wide range of stakeholder, ranging from its department, agriculture-related development partners and agri-based enterprise network. It is imperative to bring all, if not, the major stakeholders on the same page and develop common understanding on the NAP process and its anticipated outcomes. However, the corresponding institution of this TWG is well aware on climate change adaptation as it has also been implementing different programs with respect to climate change adaptation options and technology. The overall capacity of the members of this TWG and the institution is satisfactory. However, engagement with this thematic area is expected to be a win-win situation for the thematic group as well as for the NAP project.

Capacity gaps and needs

(i) **Subject related:** Capacity of both the individual as well as institutions with regard to climate change vulnerability and adaptation was found very satisfactory. It might be due to this thematic sector being the most impactful one and also due to the interest of members to learn and explore on the subject. Apart from this, the institution has been executing different programs from that of the UN agencies, and bi-lateral funding resources. However, individuals had limited knowledge on different climate-related technical knowledge base product.

Need: The need to address the gap is to raise awareness on the products, such as the VRA Framework and Indicator for the NAP formulation process in Nepal 2017, LAPA Framework 2019, and Climate Change Scenarios for Nepal 2019. These will be covered as separate sessions, when designing capacity building packages for the TWGs/CWG.

(ii) Integration/harmonization with existing policies/strategies/programs: Lack of harmonization with existing strategies/programs was found as one of the major gap. There has been focus on climate adaptation and resilience building, in program preparation and implementation on the agricultural and related sector. But climate adaptation options are not prioritized during program preparation and are not in close collaboration with local institutions. Inadequate technical capacity of institution has been found in integrating climate change in planning and budgeting, which is not consistent with the NAPA's commitment.

Need: Individuals are needed to capacitate on integrating and budgeting climate change adaptation into their programs and plans. A different case study will be done on how to harmonize agriculture adaptation with national level strategies on the sector.

iii) Availability of technologies: The agricultural sector is considered to be one of the most impacted by the adverse impacts of climate change, and the technology required to adapt and promote resilience are inadequate in this sector. Currently, the research system within this institute is underfunded for the purpose and not capable enough to generate adaptation-related technologies that are required for diverse crops/commodities and enterprises, ecological settings, and different categories of farmers. Most current agricultural practices and technologies have been developed under conditions of unevenly distributed (spatially and temporally) rainfall. Likely climate change scenarios and increased climatic variability create new challenges. There is a lack of technological innovation to ensure the sustainability of the interventions undertaken and a clear distinction between adaptation and development actions.

Need: There is a critical and urgent need to provide access to technology for adaptation at the national and local levels, enabled by capacity-building and the provision of new and additional funding to cover the costs of both integration of adaptation into the development process and stand-alone adaptation activities. Currently, access to finance is limited and should be enhanced to deliver technology development, deployment, diffusion and transfer to national and local stakeholders.

iv) Institutions and networks: Institutions play a key role in introducing new agricultural technologies to local farming communities. Their presence at different levels and networks of different institutions are required for promoting agricultural adaptation by introducing location-specific technologies. Farmers and their support institutions are the key players in technological innovations and have been an integral part of agricultural development. The capacity to respond to changing

climate depends on knowledge flow through a broad range of institutions, including farmer-to-farmer interactions. The number of responsive institutions and their active networks are limited to categorically serve the needs of climate vulnerable farmers.

Need: In this context, there is a strong need for participation of institutions to enable improvement of agricultural support services to farming communities. These institutions have their areas of focus, and together they provide farmers with access to services that facilitate improved agricultural practices with regard to climate change. To address this need, a different session in the capacity building training will be incorporated, which include communication role (what to do and how to do) for networking and disseminating information regard to adaptation options/technology and product.

v) Financial capacity: The agriculture productivity and food security is highly vulnerable to climate change. Funding sources, both internal and external for research and development, is currently low and inadequate to response the climate change risk to meet the food and necessary commodity of increasing population. Inadequate financial resources for research and development is regarded as hindrance factor for climate change adaptation and reducing the vulnerability.

Need: The members should probe different research funding, both within region and outside. Furthermore, the institution should allocate enough resources for generating and promoting new wider adaptive technology to cope climatic hazards for resilient agriculture. Capacity gap on the climate change at all three levels are prevailing. Thus, appropriate different types of package to address the capacity gaps through the capacity development programmes, such as trainings, workshop, interactions, exchange/ exposure/cross-visit, learning initiatives, institutional support, etc. is utmost important.

4.3 Disaster Risk Reduction and Management

In Nepal, the Ministry of Home Affairs is the lead agency that looks into the matter related to addressing disasters risk reduction and management. There is a specific division called the Disaster Management Division headed by the Joint-secretary. This Ministry has also established coordination mechanism among donors, government agencies and other stakeholders. Some of the major institutions that looking into the disaster issues are

- Ministry of Home Affairs
    - Disaster Management Committee,

    - Disaster Preparedness Planning and
    - National Emergency Operation Centre
- Department of Water Induced Disaster Prevention
- Nepal Police, Armed Police Force, Nepal Army
- Prime Minister Disaster Relief Fund

For DRRM, Coordination Mechanism includes

- National Platform on Disaster Risk Reduction, 2009; and
- Nepal Risk Reduction Consortium, 2011.

The mechanism has been also established at the local level in order to respond to the disaster issues in the districts. There is a multi-stakeholder disaster committee headed by the Chief District Officer, inclusive of police, army and other local bodies and NGOs, which is an area of a wide range of stakeholders' engagement (Civil society, I/NGOs), interest and investment. Their work range from climate-induced disaster, reducing disaster risk and disaster preparedness, relief and management. The capacity of the members of this TWG and its corresponding institution is of low satisfactory level.

Capacity gaps and needs

(i) **Legal instrument**: Nepal has recently formulated "National Policy for Disaster Risk Reduction 2018" to ensure a long-term provision towards disaster risk reduction and management. In order to address climate-induced disaster as an overarching legal instrument, and for effective implementation of this policy, binding all institutions and stakeholders is deemed necessary. This legal instrument is also expected to help inter-sectoral policy and planning that makes the concerned stakeholders accountable.

Needs: This legal instrument should also incorporate the climate context of the country and provisions to tackle climate-induced disasters.

(ii) Institutional strengthening and capacity building: Many institutions are found to be involved in this thematic area, i.e., disaster risk reduction and management, however, the institutional capacity is still weak and uncoordinated. Thus, strong and dedicated institutions is needed to address disaster in the country.

Needs: Institutions addressing the disaster risk reduction need to be equipped with trainings, knowledge and capacity to address the issues of climate-induced disaster. These knowledge should be incorporated from the policy to implementation level, backed with adequate financial resources, trainings, equipment, knowledge and commitment to address the problem. Building national human resources is more sustainable and reliable for the future needs. There is a need to institutionalize plan and strategy formulation and capacity enhancement at central and district levels in incorporating climate-induced disasters. There is a need for introducing the Disaster Risk Mitigation/Management related non-formal education and training in the community and building understanding that will support implementation of the plans and policies.

(iii) Coordination and linkages among stakeholders: In spite of the representation of the wide range of stakeholders' in the sector, limited coordination can be seen while addressing DRR in the country. Coordination is necessary not only at the time of disaster, but also all-round the year. Thus, there needs to be higher degree of solidarity among stakeholders, including government, development partners, and implementing agencies. Besides, the vertical and horizontal coordination must be at the national, regional and local level.

Needs: The coordination gap among the donor and implementing agencies, including ministerial and sector governmental agencies must be addressed.

(iv) Uncertainty and limited scientific information: Scientific climatic information is limited to only few institutions and found often inadequate. This has led to high uncertainty on events and predictions of extreme events. The scientific base needs to be broadened so that the future information needs can be fulfilled. Often, the information is cited from limited and particular institution which only gives less opportunity for cross validation. Resource allocation for scientific knowledge is inadequate and thinly scattered. Information on scenario of different level of temperature rise and its implication are limited.

Needs: The NAP process has the right to address the scientific gap related to the context of climate change in the country, and this opportunity must be used to produce scientific information. Support research and studies related to climate change disasters must be encouraged, which can be done via expert, students, research institutions and academia.

(v) Poor infrastructure/Technology access: Climate-related disasters are increasing in the country, however, the capacity needed to respond with sufficient infrastructure is limited. Whether it is related

to forecasting events, evacuating or rehabilitating after the events occurs; all related infrastructures are limited in number and access. Roads, health posts, rescue shelters or the national capacity to immediately respond; all needs improvements. Technology related to climate-induced disasters, including early warning systems are also low in numbers and access.

Needs: The government must work towards addressing the infrastructure needed to withstand the extreme events. Right technology must be used and promoted to build resilience. The Early Warning System Strategic Action Plan must be swiftly endorsed and set up process to establish the Early Warning System where needed.

(vi) Insufficient integration of DRR into Development plans: Though disaster is one of the major sectors that the country makes huge investments every year, this sector is yet to be integrated into the development plans. Lately, some efforts are being made, however, much needs to be achieved. Nepal's disaster response seems to be mostly limited to rescue and rehabilitation rather than also focusing on the preventive measures.

Needs: National institutions should be able to incorporate the Disaster Risk Management in different sectors like agriculture, health, livelihoods, water and sanitation, forest and watershed conservation, among others. Indicators must be built and made compulsion as the issue of climate-induced disaster risk reduction is cross-cutting. Most importantly, disasters in the country must not be only seen from the perspective of response but also preparedness, where climate adaptation addresses much of the required work.

(vii) Limited financial resources: The allocation of financial resources in climate-induced disaster is limited and unpredictable. With the limited resource effective implementation of plans and program is difficult. The country often relies on international assistance for programs and projects to address disaster in the country. Disaster response must be highly regarded in the three yearly plans so that it becomes focus of the government and is backed with budget support. The need of the country to address disaster is high, but the resources are very scarce.

Needs: National institutions should be able to incorporate the Disaster Risk Management (DRM) in different sectors, such as agriculture, health, livelihood, water and sanitation, forest and watershed conservation, among others. Sufficient allocation of resources must be allocated to address climate-induced disaster in the country. These resources can be met internally or taking opportunity from international sources and climate funds. There is a need to promote private sector to make use of new

financial instrument and Disaster Risk and Management. Private sectors can be promoted to bring resources including the insurance facilities.

4.4 Tourism, Natural and Cultural Heritage

The corresponding Ministry for this thematic sector "Tourism, Natural and Culture Heritage" is the Ministry of Culture, Tourism and Civil Aviation. Though this institution is new in climate change discourse, it is one of the most impacting sector. A total of 17 members from different sectors, including I/NGOs, its departments, and tourism related association make up this thematic group. The understanding with regard to climate change vulnerability and adaptation is relatively low when compared with other sectors. Since, this thematic sector is diverse with respect to tourism, natural and culture heritage, climate impact is relatively difficult to quantify. It was found that the practice in use of adaptation options, technology and product with respect to adaptation is almost negligible and the overall capacity of members and the corresponding institution is low.

Capacity gaps and needs

(i) Knowledge and technical capacity: The rapid checklist survey was done with all 17 organizations' member; the information showed that there are about 1500 individuals working in these institutions. The basic awareness on climate change was only 10%, with members working with I/NGOs, rest was almost nil. Most of the participant had only heard the word "Climate Change," but none known to the extend they needed. Majority were not aware on different Policies related to Climate Change.

Need: This thematic sector demands capacity building in all different themes and topics to better know about climate change, its effect; policy harmonization and integration and climate knowledge dissemination.

(ii)Reliable data, technology and Information: The information about the climatic condition in destination is crucial factor for operation of tourism activities. The information and sharing mechanism with regard to this sector is poor. The communication system has been regarded as one of the institution gap. The early warning system and forecast system is required in each destination for secure and safe destination to forecast against extreme climate events. Due to the lack of hydro-met station in high altitude, the trend and prediction of future climatic condition cannot be produced. Even within the limited technology, the proper dissemination mechanism is not in place.

Need: With regard to capacity enhancement of this institute, it is necessary to invest in adaptation technology for better climate adaptation results.

(iii) Human resource: The capacity gap assessment showed that there is a huge gap for well-trained human resources to tackle climate change issues in tourism sectors for proper planning and implementation of the plan and action. The trained manpower is required for adaptation planning and implementation of adaptation plan of action at different hotspots of tourism sites throughout the country, as tourism and climate change jointly is a new concept for Nepal.

Need: The need to fulfil this gap is that all stakeholders' institute allocate resources to develop human resources in this sector. Therefore, the capacity of practitioner need to build on to complete the NAP process within government and private sectors.

(iv) Research and study: This is the major gaps to knowledge generation in Nepal. The knowledge about the climate change and tourism is limited, especially in mountain tourism and climate change, natural heritage and climate change. Without proper research and study about the effect and impact of climate change on tourism resources, it is not logical to devise adaptation options/technology and product in this sector.

Need: All the stakeholders' institution collaborates with this Ministry for research and study, the study outputs can then be used in various plans/programs with respect to climate change adaptation in this sector.

(v) Financial capacity: Although financial flow on the climate change budget code started from 2011/2012 in Nepal, allocation in tourism started from 2014/2015. This budget is not sufficient to address the climate change-induced effect and impact in tourism. The small amount of the budget was allocated for the climate change sectors in MoCTCA from fiscal year 2014, but the allocated budget was insufficient.

Need: The institute must probe funding sources from different donor agencies to implement programs related to secure tourism infrastructure, support local communities and overall reduce the impact of climate change in the tourism sector.

4.5 Rural and Urban Settlement

The corresponding ministry for this thematic group is the Ministry of Urban Development. There are a total of 15 members representing academia, municipal association, its department, etc. This is also one of the climate impacting sector as cities in Nepal are vulnerable to the impacts of climate change due to, high population density, poor infrastructure, and poor urban planning, among others. Therefore, through the NAP, the MoFE is aiming to accelerate the process of integrating climate change adaptation into the national development process, including in the urban planning process. Because climate change is a cross-cutting and multi-stakeholder issue, it is important to identify and address capacity gaps from central level (where policy gaps and needs are more urgent) to local levels (where adaptation options will ultimately be implemented) and across stakeholders. The capacity with respect to adaptation options/technology and product was found moderately satisfactory among the members of this sector.

Capacity gaps and need

(i) Policy: When policy gaps refer to the shortcomings in the preparation or implementation of policies faced by the government agencies as a result of legal or institutional barriers. In the urban sector, the National Urban Development Strategy, 2016 is already in place and it included adaptation to climate change in its objectives. The members were also aware on climate impacting policy and strategy. A lot of guideline with respect to building housing construction has been produced, but very limited addressed on adaptation options and technology. Although, there is the National Building Code to ensure safety of buildings, there is no guideline to prevent settlement development in unsafe locations.

Need: It is imperative to capacitate through specific training session to the corresponding Ministry on climate change adaptation integration to their plans and guidelines and also support in devising medium and long-term adaptation options.

(ii) Institutional coordination. This thematic area itself is multi-sectoral with impacting Ministries, including MoUD and MoPIT. In addition to this, addressing climate change concerns in urban and infrastructure planning demands additional stakeholders to be engaged. Therefore, institutional coordination gap has been felt between expectation and performance. Similar gaps exist in the case of

individual agencies as well. In particular, in these government agencies, climate change is viewed more as an environmental concern and less as a risk management issue.

Need: The capacity building training will help to map the impacting sectors and derive mechanism to help establish coordination among these sectors.

(iii) Climate budgeting and expenditure. The Climate Change Budget Code aims to track national and sub-national expenditure on climate change-related interventions. The ministries related to this thematic area have large share of total budget as well as large share of climate budget to ministerial budget. But there is a shortcoming in the assessment of budget allocations or expenditures.

Need: Though climate budgeting was allocated but the expenditure capacity is needed to increase for individuals through capacity building for proper planning of resources.

(iv) Technical expertise and capacity: Capacity gaps refer to the lack or shortage of relevant human resources and logistic arrangement along with lack of relevant knowledge. Most of the large-scale projects in Nepal are technically assisted by donors with consultants providing major input in the project design. On positive side, engagement of the consultants, particularly, the national ones, helps in the production and strengthening of technical expertise from which the government agencies can benefit as and when needed. The in-house capacity building environment in many government agencies has remain weak with respect to this institution. It was assessed that development is their utmost priority regardless of climate change impact.

Need: Capacity building to the members of this thematic area is necessary on various theme, such as vulnerability, adaptation planning, option prioritization and integrating into their sectoral plan and guidelines.

4.6 Health, Drinking Water and Sanitation

The corresponding includes two Ministries: Ministry of Water Supply, and Ministry of Health and Population to this thematic sector. A total of 15 experts from various department of MoHP and I/NGOs

composite this group. This sector is regarded as one of the important impacting sector, but the sector often ignores climate change into its development process. The capacity with regard to adaptation options, technology and product by both the corresponding Ministries was found to be of low satisfactory.

Capacity gap and need

(i) Subject related: Capacity of both the individual as well as institutions with regard to climate change vulnerability and adaptation was found below satisfactory. It may be that the members may be aware on the subject matter but don't know to mainstream, integrate into their planning process. Very limited program is targeted to water and climate change adaptation; and health and climate change adaptation. This area would also be a new area for the NAP to collaborate and work with, in the coming days.

Need: The need to address the gap is making aware on the various themes like climate economies, long-term effect on CC, Climate Change Policy 2019, LAPA Framework 2019 and Climate Change Scenarios for Nepal 2019. These will be covered as separate sessions when designing capacity building packages for TWGs/CWG.

(ii) Policy: Both the corresponding ministries have no specific strategies related to the climate change adaptation.

Need: There is need to strengthen capacity to formulate the sub-national strategies and plans on the basis of evidence based knowledge and practical experience. The TWG has recommended to have focus on:

- *Nationwide system for water quality monitoring*
- *Water Safety Plans (WSPs) – to expand*
- *Improving WASH infrastructures and services (functionality)*
- *Research and development*

(iii)Budget and program implementation: These Ministries are doing the 'Business' as 'Usual Work.' No allocation was seen in in the climate budget code. The MoHP reviews their annual progress.

However, capacity development strategy for the HR with the visioning for the mid (2030) and long term (2050) seems to be revisited for the health sector.

Need: Specifically, the human resources of the central level institutions are to be developed and strengthened so that the gaps can be fulfilled and actions can be integrated as part of the regular health programs.

(iv) Coordination and linkages among stakeholders: This sector represent a wide range of stakeholders', however, limited coordination, while addressing this sector issues in the country is seen. Coordination is necessary not only at the time of disaster like the COVID-19 but also all-round the year. There needs to be higher degree of solidarity and among stakeholders including government, development partners, and implementing agencies and even within two different corresponding Ministries. The vertical and horizontal coordination must be at the national, regional and local level.

Needs: The coordination gap among the donor and implementing agencies, including ministerial and sector governmental agencies must be addressed.

4.7 Water Resources and Energy

The corresponding Ministry to this thematic group is the MoEWRI. The member composition of this group represent a wide range of stakeholder institutions – a total of 20 individuals representing academia, authority, civil society organization, experts and department of the same Ministry. The members of this thematic group are well aware on climate change discourse. The capacity level of members with regard to climate change adaptation options, technology and products was found to have high capacity and overall the capacity of members and corresponding institution was of a satisfactory level.

Capacity gap and needs

(i) Policy: The Government of Nepal formulated the Water Resources Strategy (WRS) and the National Water Plan (NWP) in 2002 and 2005 respectively. The WRS and NWP focuses on developing water resources for economic growth. However, the short, medium, and long- term targets set on the NWP are not compatible to the present development needs and agenda. Here, NWP has identified

five action programmes, on which plan relating to climate change is missing or has not made explicitly clear.

The Hydropower Policy that was approved by the Government in 2001 has encouraged the private sector participation in hydropower generation. The policy has made appropriate policy provisions for the resettlement of the displaced families to mitigate the adverse environmental impacts that are likely to result from the operation of hydropower plants. But there is a lack of clarity on adaptive measures that may be needed to adopt for the impacts resulting from the climate change.

The policy -related to rural (renewable) energy- largely aims to promote the use of renewable energy and has made provisions for subsidies for their promotion. There seems a lacking of strategy on the policies on how to address adaptation in addressing the likely impacts that might result due to climate change on renewable energy sectors such as micro-hydropower, biomass (including biogas), etc.

Need: There is a need to capacitate the members to integrate the provisions relating to climate change on the Water Resources Strategy and the National Water Plan; Hydropower Policy; and Renewable (Rural) Energy Policy to address the climate change issues.

(ii)Programs: Water resource is highly vulnerable to climate change, which is expected to further have a deeper effect in future. Changes in precipitation pattern and temperature will affect electricity generation adversely; especially in the case, where run-off-the river plants supply major share of electricity. In this context, the development plan seems to have lacking on strategic considerations in addressing the impacts of future climate change in the water resources and energy sector.

Need: Make a vision and develop policies in addressing the future climate change impacts on water resources and energy sector as an integral agenda of the planning process.

(iii)Adaptation projects: It is evident that there were a lot of project in water and energy sector that were designed to address climate change issues in the country.

Need: Avail projects and develop project activities to study, assess, and develop strategies on how to adapt the likely impacts of climate change in future.

(iv)Institution coordination: In case of the water resources and energy thematic area, the following government institutions are related to collaborate and coordinate in climate change discourse in this sector. These are (i) National Planning Commission, (ii) Ministry of Finance, (iii) Ministry of Agriculture and Livestock Development, (iv) Water and Energy Commission Secretariat, and (v) Investment Board of Nepal. The government institutions relating to service delivery in water resources and energy thematic area are (i) Department of Electricity Development, (ii) Alternative Energy Promotion Centre, (iii) Nepal Electricity Authority (as a buyer), and (iv) Department of Hydrology and Meteorology. It was found that this Ministry has been establishing effective coordination mechanism with all the above institutions.

Needs: Issues relating to climate change impact are diverse in nature, and hence, it is needed to deal by one dedicated institution with a clear mandate.

(v) Financial capacity: Difficulties often arise in adding up budgetary allocations and expenditure going directly to climate change adaptation. In many programs, activities relating to administration, communication, publication and M&E are also counted as climate change adaptation expenditure. Separating climate change adaptation from regular development work is equally difficult.

Need: The exact amount required to address the climate change issues on the sector is not known. There is a need for developing plans and programmes to know the exact amount of fund requirement.

(vi) Human resources: The exact number of human resources required to address the climate change issues is not clear and the number of available human resources is also not known/documented.

Need: An assessment of the human resource requirements at different level needs to be carried out and capacity development plan needs to be developed and implemented accordingly.

4.8 Gender and Social Inclusion, Livelihood and Governance

The corresponding Ministry for this thematic group is the Ministry of Women, Children and Senior Citizen. The members of this thematic group are only the officers from their own Ministries. This group often lacks to integrate a wide range of stakeholders working in the field of livelihood and

governance support and GESI. The members seem to have heard only the word climate change and its impact but nothing in in-depth, other than these ones. All the members were found to have low capacity. However, some of the key capacity gap and needs are illustrated as below.

(i) **Policy/Strategy**: The Strategy on the Gender and Climate Change, 2072 (Draft) has not yet been endorsed by the Government of Nepal (formulated under the aegis of Ministry of Forests and environment). A speedy adoption of the Strategy would help guide the climate change and gender discourse in Nepal. Similarly, the Draft Strategy focuses only on the gender aspect of climate change without giving due recognition to social inclusion issue. Since issues of gender and social inclusion are socio-economic attributes, a GESI and Climate Change Strategy would be efficient and effective in addressing socio-economic issues. Therefore, inclusion of social inclusion issues in the Draft Strategy and its speedy endorsement would allow actions on GESI and climate change area.

(ii) Institutional arrangement: MWCSW is entrusted with the mandate to look after gender and social welfare related issues, it is, however, a cross-cutting issue that needs cooperation and coordination from all the Ministries. Realizing the cross-cutting nature of the gender, social inclusion, livelihoods and governance issue and its importance for all the line Ministries to mainstream the GESI consideration in their portfolio and operations, the Government of Nepal has established gender focal points in all the Ministries. Some Ministries have, lately incorporated social inclusion within the gender focal point.

(iii) Capacity: MoWCSC is new in the climate change discourse in Nepal. The gender and climate change issues in sector are under the domain of the sector ministries which is important. However, the Ministry should equally be equipped with knowledge, skills and institutional set up to address climate change issues in its portfolio. MoWCSC is, in that context, new to the NAP formulation process, that by default lacks its capacity in climate change issues, both institutional and technical, which would impend the coordinating role that MoWCSC has in ensuring integration of gender, social inclusion, livelihoods and governance in sectors and also working on a standalone basis.

(iv) Data and Knowledge: In the context of climate change regime in Nepal, the availability of gender-disaggregated data is an issue. Similarly, the situation of availability of data on social exclusion relevant for the NAP formulation is even challenging. This is perhaps the most stumbling blocks in order to devise Gender and livelihoods friendly climate change adaptation programs. This demonstrates that the Gender and Social Inclusion, even though is receiving heightened attention; the actions have not addressed the core problem. The need for a more robust approach in collecting data in order to document and demonstrate different needs and priorities of men, women, and vulnerable

groups is of importance in climate change adaptation to ensure gender equity, social inclusion and livelihoods. Therefore, data generation that may help the NAP formulation process and other planning process is needed.

There is also a limited knowledge of the sector of this relevant institutions. There is lack of robust research on climate change impacts and vulnerability on GESI issues in general and in some thematic sectors. This hinders sectors to capture GESI considerations in the climate change adaptation thereby holding these sectors back from devising GESI and livelihoods sensitive climate change adaptation actions.

4.9 Way Ahead

A detail climate change adaptation capacity self-assessment process has been initiated at the central level targeted to the members of thematic working group with a view to capacitate these members in climate change discourse. The main objective of capacitating these TWGs/CWG members' is to integrate climate change adaptation into sectoral plans, budget and reporting systems. Some of the information was extrapolated from different TWG meetings held at the Ministries. The crucial part is to execute the capacity development plan and proposed to impart the capacity building training as a capsule to integrate climate change adaptation into sectoral policy/strategy/program/plan by applying, but not limited to following learning approaches.

Action learning: During the training, the members will be engaged in taking real problems and learning as a team. This approach helps individual delevop creative , flexible and successful strategies to pressing problems.

Adult learning: As most of the members are mature, facilitator will try to take advantage of their qualities that adult learners have and try to motivate the session by breakout session, game play etc.

Continuous learning: Since this is a process of learning new skills and knowledge on an ongoing basis, the project is expected to continue such in the form of refresher training for the NAP implementation and roll out in the country.

Now, devising capacity building package is the next step. Session plan and details for capacity building training that will be imparted to TWGs/CWG members include the following:

Table 1: Capacity Building Training Session Details

Session/Agenda	Details
Session 1/ Introduction	• Participants registration and Inaugural session • Introduction and objective of the training • Clear on the logistic facilities
Session 2 & 3/ TBD	• Session 2 & Session 3 will be facilitated and led by the NAP PMU and content will be decided during the training
Session 4/ Introduction to Climate and Climate Science	• Explain the basic concepts of climate system and climate change science • Describe the natural and enhanced greenhouse gas effect • Describe the global warming phenomenon • Identify the causes of climate change • Explain long-term and short-term effects of Climate Change • Detail on the economics of Climate Change
Session 5/ Climate Change Impacts, Indicators and Initiatives (Global to National)	• Understand the impact of climate change (from global to national perspective) • Explain the impact of climate change on thematic sector • Describe the national initiatives on climate change and CCA • Describe the international initiatives on climate change and CCA
Session 6/ Overview of Nepal's initiatives on climate change adaptation	• Describe Nepal's participation in CC Regime • Explain Climate Change Adaptation in LDCs • Describe NAPA's prioritized projects • Describe NAPA to NAP • Detail on the NAP achievement's (back from 2015) • Touch base on the National CC Policy 2019 • Detail on the Emergence of NAP and its role in addressing CC impacts
Session 7a/ Vulnerability assessment and adaptation-Theory and Practice	• Explain on the Vulnerability and risk concepts • Detail on different terminologies used in VRA • Explain on Climate Change VRA framework • Detail on the methodological steps of VRA and key Indicators • Explain with an example of VRA in the Agriculture sector (Eg. Of local context)

Session 7b/ Gender Integration in Climate Change	• Explain the importance of gender in CC, need for gender integration in Climate Change Plans/Programs • Share about Toolkit for a Gender-Responsive Process to Formulate and Implement the National Adaptation Plans (NAPs)
Session 8/ Adaptation planning and option prioritization exercise	• During this exercise the participants will be divided into groups according to their sectors (say forests, agriculture, health, rural development, etc.) • Detail VRA and adaptation planning will be done for those sectors • The exercise shall include prioritizing adaptation options and developing implementation modality for the options
Session 9/ Presentation and panel discussion	• The findings of group work will be summarized by plenary presentation • Discussion on prioritization of option will be done • This exercise will overall be supportive to participants in their organization with reference to adaptation planning, option prioritization and implementation
Session 10/ Mainstreaming Climate Change Adaptation into Policy/Strategy/Plan	• Detail on why to integrate Climate Change Adaptation? • Explain on top-down and bottom-up approaches to vulnerability and adaptation assessment • Explain on possible entry points for mainstreaming into development planning • Explain with examples on how to integrate CCA into sector strategy
Session 11/ Group work on CCA mainstreaming	• The participants will again be working in groups to mainstream CCA into different sectoral strategies/plan • The participants will present, discuss and finalize their work findings

Session 12/ Communicating climate change adaptation for policy reform, theory, practice and tools	• Explain why communication is crucial for CCA • Describe on communication importance on CCA practices for Policy reform, practice and tools • Explain how, whom, what to communicate for CCA.

"Building Capacity to Advance National Adaptation Plan Process in Nepal"

(NAP Project)

Title of the training workshop: **"Capacity Building of TWGs' and CWG's members to integrate Climate Change Adaptation in sectoral Policies/Strategies/Plans"**

Purpose: The purpose of the training is to build and /or enhance the Thematic Working Groups/Cross-cutting Working Group members' capacity in climate change affairs (climate change adaptation, climate risks, integration into policies/plans, budgeting, monitoring etc.), transfer knowledge and skills for policy facilitation as well as functional coordination (both vertical and lateral) among the inter-ministerial and cross-sectoral stakeholders for the NAP formulation process in Nepal.

Objectives: The objective envisioned for the training workshop include the following:

i. To update the TWGs and CWG members, both federal government officials and stakeholders on the NAP genesis, overview, and outcomes in Nepal and its linkages with sectors and roles

ii. To reorient on Climate scenarios/trends, current vulnerability of CC impacting sectors and CC Adaptation needs of thematic and cross-cutting sectors

iii. To orient the participants on policy drivers of climate change, policy formulation process, policy engagement and influences

iv. To offer participants a capsule on coordination and communication to recommend revisions in sectoral policies/strategies/plans to integrate climate change adaptation

Approach: The approach envisioned include the following:

1. *Cascade approach*
2. *Learning and sharing approach*
3. *Vulnerability and adaptive capacity building approach*
4. *Experimental learning approach*

Training Need Assessment*:* Before the commencement of training, Training Need Assessment will be carried out (checklist as attached below).

Training Workshop for the TWGs and CWG members'

Title: Capacity building to integrate Climate Change Adaptation in sectoral Policies/Strategies/Plans

Organized by: **Ministry of Forests and Environment and UNEP Nepal GCF NAP Project**

Technical & Financial support: **Building Capacity to Advance NAP process in Nepal project**

Name (Optional): **Organization:**

A warm welcome to all the TWGs' and CWG's members to the Training Workshop. We are committed to put our best foot forward to deliver the training workshop content in a way that will contribute to bringing a transformational change in your knowledge base, attitude and behaviour. In this context, we humbly request to you to fill out this form to the truest extent possible. Kindly tick or circle that you feel is the most correct one. Thank you!

1. Your organization's engagement in the policy process?

Not at all	Very little	Moderate	High	Very high
1	2	3	4	5

2. Your organization's engagement in climate change adaptation related activities?

1	2	3	4	5

3. Your personal engagement in the policy process?

1	2	3	4	5

4. Your personal engagement in climate change adaptation related activities?

1	2	3	4	5

5. Your personal involvement in communication and coordination with reference to CCA?

1	2	3	4	5

6. Your opinion on gravity of factors (such as expertise and resources) that influence policymaking?

1	2	3	4	5

7. Role of your organization on identifying/generating adaptation options/services in your thematic sector?

1	2	3	4	5

8. Your personal engagement in identifying/generating adaptation options/services in your thematic sector?

1	2	3	4	5

9. Role and process of communicating climate change for policy reformation?

1	2	3	4	5

10. Climate change initiatives in Nepal and engagement of the focal ministry?

1	2	3	4	5

11. Existence of major policy/strategy documents in your thematic sector that addresses climate change problems in
Nepal?

1	2	3	4	5

12. Need of policy reforms for climate change adaptation in your sector in Nepal?

1	2	3	4	5

13. Your key expectations from the training workshop? (Please include two key points)

a.

b.

Thank you very much for your time. Wish you a wonderful and fruitful learning!

Training Workshop for TWGs and CWG members

Title: Capacity Building to Integrate Climate Change Adaptation in Sectoral Policies/Strategies/Plans

Organized by: **Ministry of Forests and Environment and UNEP Nepal GCF NAP Project**

Technical & Financial support: **Building Capacity to Advance NAP Process in Nepal Project**

Provisional Session Plan

Day	Agenda	Methods/Tools	Responsibility
I	**Session 1: Introduction**		
	Registration and Tea/Coffee		NAP PMU
	Setting the climate, ice breaking	Participatory	NAP PMU
	Training inauguration, introduction and objectives	Participatory	NAP PMU
	Introducing the participants, logistics, rule setting	Participatory	NAP PMU
	Training Need Assessment/Expectation collection		Resource person
	TEA BREAK		
	Session 2: TBD		NAP PMU
	LUNCH BREAK		
	Session 3: TBD		NAP PMU
	End of Day I (Training Introduction and rest session taken by the NAP PMU) Summarization of the day and takeaway from the session		
	Session 4: Introduction to Climate and climate Science		
	Introduction to Climate Change and Science	Lecture, PPT	Resource person
	Long and short-term effects of Climate Change	Lecture, PPT	
	Economics of Climate Change	Lecture, PPT.	Resource person
	TEA BREAK		
	Session 5: Climate Change Impacts, Indicators & Initiatives (Global to National)		
	Global initiatives	Lecture, PPT	Resource person

	National initiatives	Lecture, PPT	Resource Person
II	**Session 6: Overview of Nepal's initiatives on climate change adaptation**		
	NAPA, LAPA framework 2019, VRA Methodology 2017, Climate Change Policy 2019	PPT, Discussion	Resource person
	Why NAP? Technical Guidelines and Global NAP examples	Lecture, PPT	Resource person
	NAP- Genesis & Overview in Nepal, TWGs/CWG roles for NAP formulation process	PPT, Discussion	Resource Person
	LUNCH BREAK		
	Session 7a: Vulnerability assessment and Adaptation- Theory and Practice	PPT, Lecture, Q&A	Resource person
	Reviewing vulnerability, assessing exposure and sensitivity		
	Elements of adaptive capacity, Adaptation planning, Adaptation theory and practice		
	Session 7b: Gender Integration in Climate Change	PPT, Lecture, discussion	Resource person
	Gender and CC, importance and need for its integration in CC Plans/Programs		
	Toolkit for a Gender Responsive Process to formulate and implement NAPs		
	Session 8: Adaptation planning and option prioritization exercise	Breakout session	Resource person
	Group work on adaptation planning Identifying adaptation options in each sectors and option prioritization	Material to be provided during training	Resource person, NAP PMU
	TEA BREAK		
	Session 9: Presentation and panel discussion		
	Presentation of group work	Display, PPT	NAP PMU

	Comments by floor	Interaction	Participants
	Facilitation for better adaptation planning and option prioritization	Interaction, Discussion	Participants
	End of Day II (all Sessions taken by Resource Person, group exercise conducted) Recap of the day and take home message		
III	**Session 10: Integration of Climate Change Adaptation into Policy/Strategy/Plan**		
	Recap of Day I and Day II	Open discussion	Resource person
	Road map to integrate CCA into Agriculture Development Strategy: An example • Detail on SWOT of ADS • Entry points for CCA integration in ADS	Lecture, discussion	Resource person, NAP PMU
	TEA BREAK		
	Session 11: Group Work on Policy		
	Group exercise on thematic sectoral policy mapping Gap identification for CCA in sectoral policy/strategy/plan Provide feedback and recommendations for better coordination and CCA integration	Breakout session (reference materials will be supplied in groups)	NAP PMU and Resource Person
	LUNCH BREAK		
	Group presentation	Presentation, discussion	Participants, Resource person
	Group sum up on CCA integration on sectoral policy/strategy	Discussion	Participants, Resource person
	Session 12: Communicating climate change adaptation for policy reform, theory, practice and tools		
	Communicating CCA across all sectors	PPT, discussion	Resource person
	Crafting key message	Presentation, discussion	Resource person
	TEA BREAK		

	Session 13: Sum up/Closing session		
	Sum up of training activities		Resource person
	Training Evaluation		Resource person
	Remarks from participants		NAP PMU
	Remarks from organizer		NAP PMU
	Concluding remarks from Chair		NAP PMU
	End of the training program		
Session content can vary on the basis of floor situation and need of elaboration			

Expected Outcome of the training: The following outcomes are expected from the training:

i. TWGs/CWG members provide strategic guidance in the thematic/cross-cutting area/sector reports preparation and comments and suggestions as well as in internalization of the reports within their sectors.

ii. Advocate, facilitate and support to integrate organizational issues and interests in Nepal NAP process outcomes.

iii. Take lead and facilitate to develop dialogues on climate change adaptation in own respective sectors

iv. Act to leverage technical and financial resources from corresponding organization to assist the NAP process

v. Involve in sectoral climate change risk and vulnerability assessment and provide input in the process.

vi. Engage in fulfilling the detail roles and responsibility of the thematic working group.

vii. Participate in the capacity building activities of the working group both as a beneficiary and as a resource person by also advocating for equal gender representation in NAP consultation process and for gender responsive NAP preparation.

Post Training Evaluation: After the completion of the training, post training evaluation will be carried out (checklist as attached below).

Training Workshop for TWGs and CWG members'

Title: Capacity Building to Integrate Climate Change Adaptation in Sectoral Policies/Strategies/Plans

Organized by: **Ministry of Forests and Environment and UNEP Nepal GCF NAP Project**

Technical & Financial support: **Building Capacity to Advance NAP Process in Nepal Project**

Name (Optional): Organization:

Thank you very much for participating in the Training Workshop. We believe you fully enjoyed the overall content of the training workshop. At the end, we kindly request you to fill out the form to the truest extent possible. Kindly tick or circle that you feel is the most correct one. Thank you!

A. Content impression

1. Your exposures and knowledge on climate change and policy process?

Not at all	Very little	Moderate	High	Very high
1	2	3	4	5

2. Your experience and knowledge on communication and coordination for meeting organization's purpose?

1	2	3	4	5

3. Your opinion on usefulness for enhancing climate change adaptation in your sector?

1	2	3	4	5

4. Your opinion on gravity of factors (such as expertise and resources) that influence policymaking?

1	2	3	4	5

5. Role of your organization on identifying/generating adaptation options/services in your thematic sector?

1	2	3	4	5

6. Your personal engagement in identifying/generating adaptation options/services in your thematic sector?

1	2	3	4	5

7. Role and process of communicating climate change for policy reformation?

1	2	3	4	5

8. Climate change initiatives in Nepal and engagement of the focal ministry?

1	2	3	4	5

9. Major policy and strategic documents in your thematic sector that addresses climate change problems in Nepal?

1	2	3	4	5

10. Need of policy reformations for climate change adaptation in your sector in Nepal?

1	2	3	4	5

B. General impression

1. Overall, how would you rate this training workshop?

1	2	3	4	5

2. How did the overall content meet your expectation?

1	2	3	4	5

3. Was the content of each of the session was well-prepared?

1	2	3	4	5

4. Were the hands-on exercises provided sufficient practice and feedback?

1	2	3	4	5

Briefly explain the reason(s) for your choice.

5. Were the speakers for each of the sessions clear and competent?

1	2	3	4	5

Briefly explain the reason(s) for your choice.

6. The knowledge and information gained from participation in this training workshop be useful/applicable in your work

1	2	3	4	5

7. Please explain how you would apply what you have learned through the programme to your professional area or other related work in your organization.

C. Administrative and logistics

1. How would you rate the administrative and logistical aspects of the workshop?

Rating	**Reasons**
Excellent	
Good	
Fair	
Poor	

Wishing you all the best!

Annex

I. Individual Capacity Evaluation and Assessment form for TWGs/CWG members

UNEP is executing the Green Climate Fund (GCF) funded project entitled, **"Building Capacity to Advance National Adaptation Plan Process in Nepal"** to support the Government of Nepal, since mid of 2019. This project supports the Climate Change Management Division of the Ministry of Forests and Environment to reduce vulnerability to climate change, and to increase resilience through integration of climate change adaptation into the development planning processes by implementation of its program and actions under its four components: I. Institutional Capacity for the NAP Process in Nepal II. Climate Information Systems for Prioritizing Adaptation Needs III. Funding Strategy for the NAP Process, including its implementation IV. Monitoring, Reviewing and Reporting of the NAP Process in Nepal

One of the significant objective of the project is to develop and enhance capacity at systemic, institutional and individual levels to promote climate change adaptation into three governance level for the NAP formulation process in the country. In line to this, assessing working groups' capacity gap on revising and updating the sectoral policies, strategies and work plans for climate change integration is necessary. Therefore, this checklist has been designed and proposed for your kind perusal for the collection of primary information and data which will be kept confidential, and further analysis will be done on a collective basis. Please be assured that your good name and affiliated organization will not be disclosed for any publication and dissemination. We request you to provided true information to support policy influence and build/enhance thematic capacity in planning, budgeting and implementing climate change adaptation in your sector.

Thank you for your kind cooperation!

1. Personal information

A. Personal details

i. Full Name:

ii. Position:

iii. Organization:

B. Education details (highest obtained)

☐ Undergraduate ☐ Masters ☐ Ph.D.

C. Training details (at least two trainings received on climate change)

S.N.	Training title	Duration (days)

D. Involvement in climate change discourse

☐ Policy formulation facilitation ☐ Climate change adaptation planning and implementation at national level ☐ Climate Change advocacy ☐ Climate change adaptation technology dissemination ☐ Climate change adaptation planning and implementation at sub-national level ☐ Climate change mitigation and adaptation capacity building

2. Institution

A. Institution details

Name, address	Geographical working area (Federal/Province/Local level/District)	Remarks

B. Hindrances in implementing designed programs

☐ Unclear policy ☐ Difficulty in coordination between institution

☐ Limited technical knowledge ☐ Limited human resource

☐ Limited internal capacity ☐ Limited financial resource

☐ Geographical hindrances ☐ Others (if any) ----------

3. Sector/theme

A. Your contribution in policy formulation as:

☐ Expert ☐ Lead Facilitator ☐ Logistics supporter

☐ Process facilitator ☐ Capacity development ☐ Documentation

B. How aware are you on these issues?

Subject	Aware		Remarks
	Yes	No	
Causes of Climate Change	☐	☐	
Global effect of Climate Change	☐	☐	
Local effect of Climate Change in Nepal	☐	☐	
Effect of Climate Change in your sector	☐	☐	
Difficulties and Challenges in your sector	☐	☐	
Adaptation measures taken in your sector	☐	☐	
Additional adaptation measures in your sector	☐	☐	

C. How aware are you on each of these documents (yes/no)?

Documents	Aware		Remarks
	Yes	No	
National Climate Change Policy 2019	☐	☐	
National Adaptation Program of Action (NAPA)	☐	☐	
LAPA framework 2019	☐	☐	
Your Sectoral Policies/Acts	☐	☐	
SDGs	☐	☐	
Fifteen National Plan 2020	☐	☐	
Vulnerability Risk Assessment Framework and Indicators for NAP formulation process in Nepal 2017	☐	☐	
NAP process in Nepal	☐	☐	
Paris Agreement	☐	☐	
Local Government Operational Guidelines 2017	☐	☐	
National Environment Policy 2019	☐	☐	
Environment Protection Act 2019	☐	☐	
TWGs/CWG Terms of Reference	☐	☐	

4. Others

A. What would be various subject/themes to be included to enhance your capacity in policy/strategy review, update and integration of climate change adaptation?

B. Will your role and responsibility be changed in your organization with your enhanced knowledge, understanding and capacity after the capacity building training?

C. With the federalism in the country, what would you like to suggest for policy improvement and institution development in your organization?

II. List of TWGs/CWG members

1. Members of thematic sector: Tourism, Natural and Cultural Heritage

Corresponding Ministry*:* MoCTCA

S.N.	Name	Designation/Organization	Position in TWG
01	Ghana Shyam Upadhayay	Joint Secretary/ MoCTCA, Tourism Division	Coordinator
02	Durga P. Bhurtel	Under Secretary/MoCTCA, Culture Section	Sub-Coordinator
03	Name not received	Director (Mountaineering)/MoCTCA, Tourism Department	Member
04	Name not received	Under Secretary (Tech.)/MoEWRI, Dept.HM	Member
05	Name not received	Executive Officer (CC Focal Person)/Nepal Tourism Board	Member
06	Name not received	Expert (Mountain Tourism)/ICIMOD	Member
07	Name not received	CC Focal/WWF Nepal	Member
08	Name not received	CC Focal/Mountaineering Training Institute	Member
09	Name not received	Tech. expert/Nepal Hotel and Tourism Education Institute	Member
10	Name not received	Tech. expert/ Nepal Mountaineering Association	Member
11	Name not received	Tech. expert/ Trekking Agents Association of Nepal (TAAN)	Member
12	Name not received	Tech. expert/Hotel Association of Nepal (HAN)	Member
13	Name not received	Tech. Officer/Himalayan Rescue Association (HRA)	Member
14	Name not received	Tech. Officer/Nepal Heritage Association	Member

15	Name not received	Tech. Officer/Himalayan Climate Initiative	Member
16	Mukesh Dongol	ATC Officer/MoCTCA	Member Secretary

2. Members of thematic sector: Forests, Biodiversity and Watershed Conservation

Corresponding Ministry*:* MoFE

S.N.	Name	Designation/Organization	Position in TWG
01	Dr. Maheshwor Dhakal	Joint Secretary/CCMD, MoFE	Coordinator
02	Srijana Shrestha	Under Secretary/CCMD, MoFE	Sub-Coordinator
03	Name not received	Under Secretary/Department of Forests and Soil Conservation, MoFE	Member
04	Bishnu Shrestha	Under Secretary/Department of National Parks and Wildlife Conservation	Member
05	Name not received	Under Secretary/Department of Plant Resources, MoFE	Member
06	Name not received	Under Secretary/Department of Environment, MoFE	Member
07	Sunita Ulak	Under Secretary/ Department of Forest Research and Training, MoFE	Member
08	Name not received	Under Secretary/REDD+ Implementing Center, MoFE	Member
09	Name not received	Under Secretary/ PCTMCDC	Member
10	Name not received	Tech. Officer/NFA	Member
11	Name not received	Tech. Officer/Rastriya Dalit Netwrok	Member
12	Name not received	Tech. Officer/FECOFUN	Member
13	Tunga Rai	Tech. Officer/NEFIN	Member
14	Dipesh Joshi	Climate and Energy Lead/WWF Nepal	Member
15	Dr. Manish Raj Pandey	Senior Officer/ NTNC	Member
16	Bhogendra Rayamajhi	Tech. officer/ZSL	Member
17	Dr. Jenita Gurung	Mountain Ecosystem Specialist/ICIMOD	Member

18	Name not received	Tech. Officer/FenFIT	Member
19	Name not received	Tech. Officer/HIMAWANTI Nepal	Member
20	Surendra Raj Pant	Scientific Officerr/CCMD, MoFE	Member Secretary

3. Members of thematic sector: Urban and Rural Settlement

Corresponding Ministry*:* MoUD

S.N.	Name	Designation/Organization	Position in TWG
01	Sarita Shrestha Maskey	Joint Secreatry (Urban Development Division)/MoUD	Coordinator
02	Name not received	Under Secretary (Environment Division)/MoUD	Sub-Coordinator
03	Sachindra K.Deo	Division head (Sr. Division Engineer, Housing Section)/MoUD	Member
04	Sangita Singh	Senior Sociologist (Social Coordination Division)/MoUD	Member
05	Padma Sundar Joshi	Expert/UNHABITAT	Member
06	Dr. Sanjay Upreti	Professor/IoE- Pulchowk	Member
07	Rajendra P. Pyakurel	Officer/Rural Municipality Association of Nepal	Member
08	Sarita Sapkota	Officer/Municipality Association of Nepal	Member
09	Name not received	Expert/UNDP	Member
10	Kishor Jha	Expert/RUPSON	Member
11	Name not received	Expert/ Hydrology and Meteorology Experts' Association Nepal	Member
12	Name not received	Expert/Nepal Bikash Anusandhan Pratisthan	Member
13	Name not received	Division Head (Legal section)/MoUD	Member
14	Name not received	Division Head (Building section)/MoUD	
15	Suresh Kumar Wagle	Chief (Planning and Foreign Coordination Division)/MoUD	Member-Secretary

4. Members of thematic sector: Agriculture and Food Security

Corresponding Ministry*:* MoALD

S.N.	Name	Designation/Organization	Position in TWG
01	Not Known (NK)	Joint Secretary (Food Security & Food Technology Division)/ MoALD	Coordinator
02	NK	Chief (Agriculture Biodiversity and Environment Division)/ MoALD	Sub-Coordinator
03	NK	Under Secretary (Tech.)/MoALD, Agriculture Department	Member
04	NK	Under Secretary (Tech.)/MoALD, Livestock Department	Member
05	NK	Under Secretary (Tech.)/MoALD, Food Technology and Quality Control Division	Member
06	NK	Senior Scientist/National Agriculture Research Center	Member
07	NK	Expert/Agriculture and Forestry University	Member
08	NK	Expert/Institute of Agriculture and Animal Science	Member
09	NK	Under Secretary (Tech.)/Rastriya Kishan Aayog	Member
10	NK	Under Secretary (Tech.)/Agriculture Information and Training Center	Member
11	NK	Under Secretary (Tech.)/Plant Quarantine and Pesticide Management Center	Member
12	NK	Expert/ Krishi Udhyam Kendra	Member
13	NK	Expert/FAO Nepal	Member

5. Members of thematic sector: Disaster Risk Reduction and Management

Corresponding Ministry*:* MoHA

The Disaster Studies, Risk Reduction and Relief Section will take the responsibility of thematic sector DRRM under this Ministry.

6. Members of thematic sector: Water Resources and Energy

Corresponding Ministry*:* MoEWRI

S.N.	Name	Designation/Organization	Position in TWG
01	Ram Gopal Kharbhuja	Joint Secretary/ MoEWRI	Coordinator
02	Chatur B. Shrestha	CDEG/MoEWRI	Sub-Coordinator
03	Not Known (NK)	Tech. Expert/MoEWRI, Energy Division	Member
04	NK	Division Chief/MoEWRI, Glacial lake and Climate Change Division	Member
05	NK	Tech. Expert/WECS	Member
06	NK	Tech. Expert/Electricity Development Department	Member
07	NK	Tech. Expert/MoEWRI, Water Resources Division	Member
08	NK	Tech. Expert/Water Resource Development and Research Center	Member
09	NK	Tech. Expert/MoEWRI, Water Resources and Energy Department	Member
10	NK	Tech. Expert/DHM	Member
11	NK	Tech. Expert/Ground Water Resources Development Committee	Member
12	NK	Tech. Expert/ NEA	Member
13	NK	Tech. expert/AEPC	Member
14	NK	Expert/IoE- Pulchok	Member
15	NK	Expert/KU	Member
16	Srijana Timilsina	Engineer/MoEWRI, Foreign Coordination Division	Member
17	NK	Expert/ Water Resources Development Corporation	Member
18	NK	Expert/IPPAN	Member
19	Devendra Adhikari	Independent Expert	Member
20	Dinesh Shrestha	Engineer/MoEWRI	Member Secretary

7. Members of thematic sector: Health, Drinking Water and Sanitation

Corresponding Ministry*:* MoPH

S.N.	Name	Designation/Organization	Position in TWG
01	Not Known (NK)	Joint Secretary/MoHP, Health Coordination Division	Coordinator
02	Not Known (NK)	Under Secretary/Ministry of Water Supply	Sub-Coordinator
03	Not Known	Tech. Officer/ MoHP. Multi-sectoral Coordination Section	Member
04	Not known	Tech. Officer/ MoHP, Policy and Planning Section	Member
05	Not Known	Under Secretary/ MoHP, National Health Education, Information and Communication Center	Member
06	Not Known	Under Secretary/MoHP, National Health training Center	Member
07	Not Known	Chief/MoHP, Disease Surveillance and Research Section	Member
08	Not Known	Chief/MoHP, Health Services Department	Member
09	Not Known	Chief/MoWS, Drinking Water and Sewage Management Department	Member
10	Not Known	Tech. Officer/Nepal Health Research Council	Member
11	Dr. Bandana Pradhan	Tech. Expert	Member
12	Not Known	Tech. Expert/WHO	Member
13	Not Known	Tech. Expert/UNICEF	Member
14	Not Known	Tech. Expert/Non- Governmental Organization	Member
15	Dr. Sameer Adhikari	Officer/MoHP- Multi Sectoral Coordination Section	Member Secretary

8. Members of thematic sector: Gender and Social Inclusion, Livelihood and Governance

Corresponding Ministry*:* MoWCSC

S.N.	Name	Designation/Organization	Position in TWG
01	Gyanendra Poudel	Joint Secretary/MoWCSC	Coordinator
02	Shankar Nepal	Under Secretary/MoWCSC, Women Development and Mainstreaming Section	Member
03	Sabita Karki	Under Secretary/MoWCSC, Policy, Planning and Monitoring Section	Member
04	Roshni Devi Karki	Under Secretary/MoWCSC, GBV Eradication Section	Member
05	Pabitra Dhakal	Section Officer/Human Trafficking Control Section	Member Secretary

III. List of experts consulted

S.N.	Name	Designation/Organization
01	Dr. K.C. Poudel	Consultant (former Secretary, then MoPE)
02	Dr. Janita Gurung	Coordinator (Kailash Landscape)/ ICIMOD
03	Dr. Bimal Regmi	Expert/Oxford Policy Management P. Ltd.
04	Mr. Ugan Manandhar	Expert

IV. Capacity Gap Assessment Matrix

Kindly tick if the answer is yes, write two points to justify and mark X if the answer is no. All indicators are with respect to Climate Change Adaptation.

NAP Project (MoFE/GCF/UNEP)

Indicators	MoFE	MoALD	MoUD	MoWCSC	MoCTCA	MoEWRI	MoHP	MoHA
1. Human Resources (knowledge, skill & adequate number)								
2. Information and knowledge management								
3. Research and Development								
4. Reaching the unreached								
5. Collaboration & Cooperation with other sectors								
6. Financial resources								
7. Emergency preparedness and response								
8. Database management								
9. Technology								
10. Others								

Government of Nepal

Ministry of Forests and Environment

Climate Change Management Division

Singhdurbar, Kathmandu, Nepal

Phone: 01-4211567 Fax: 977-1-4211868

Toll Free Number: 16600101000

Email: info@mofe.gov.np

Website: www.mofe.gov.np

www.napnepal.gov.np

GREEN CLIMATE FUND

United Nations Environment Programme

National Adaptation Plan Project Management Unit

Forestry Complex, Babarmahal

Phone: 01-4102191

www.unenvironment.org

UN environment programme