
Readiness Proposal

with UNDP for the Kingdom of Bhutan

23 December 2018 | Adaptation Planning



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Readiness and Preparatory Support Proposal

How to complete this document?

- A Readiness Guidebook is available to provide information on how to access funding under the GCF Readiness and Preparatory Support programme. It should be consulted to assist in the completion of this proposal template.
- This document should be completed by National Designated Authorities (NDAs) or focal points with support from their delivery partners where relevant.
- Please be concise. If you need to include any additional information, please attach it to the proposal.
- Information on the indicative list of activities eligible for readiness and preparatory support and the process for the submission, review and approval of this proposal can be found on pages 11-13 of the guidebook.
- For the final version submitted to GCF Secretariat, please delete all instructions indicated in italics in this template and provide information in regular text (not italics).

Where to get support?

- If you are not sure how to complete this document, or require support, please send an e-mail to countries@gcfund.org. We will aim to get back to you within 48 hours.
- You can also complete as much of this document as you can and then send it to countries@gcfund.org. We will get back to you within 5 working days to discuss your submission and the way forward.

Note: Environmental and Social Safeguards and Gender

Throughout this document, when answering questions and providing details, please make sure to pay special attention to environmental, social and gender issues, particularly to the situation of vulnerable populations, including women and men. Please be specific about proposed actions to address these issues. Consult page 7 of the readiness guidebook for more information.

SECTION 1: SUMMARY	
1. Country submitting the proposal	<p>Country name: The Kingdom of Bhutan</p> <p>Name of institution representing National Designated Authority (NDA) or Focal Point: Gross National Happiness Commission, Bhutan National Designated Authority (NDA)</p> <p>Name of NDA/Focal Point: Dasho Thinley Namgyel Position: Secretary</p> <p>Telephone: +975-2-325-850 Email: tnamgyel@gnhc.gov.bt</p> <p>Full office address: Tashichho, Dzong, Thimphu, The Kingdom of Bhutan</p>
2. Date of initial submission	18/08/2017
3. Last date of resubmission	30/04/2018 <i>[GCF Secretariat received this proposal on 8 December 2018]</i>
4. Which entity will implement the Readiness and Preparatory Support project?	<p><input type="checkbox"/> National Designated Authority <input type="checkbox"/> Accredited Entity <input checked="" type="checkbox"/> Delivery Partner <i>(Please provide contact information if the implementing partner is not the NDA/focal point)</i></p> <p>Name of institution: United Nations Development Programme (UNDP)</p> <p>Name of official: Rohini Kohli Position: Lead Technical Specialist, National Adaptation Plans, Bureau for Policy and Programme Support, UNDP Global Environmental Finance Unit.</p> <p>Telephone: +66(2)3049100, ext. 2132 Email: rohini.kohli@undp.org</p> <p>Full Office address: 3rd Floor UN Service Building, Rajdamnern Nok Avenue, 10300 Bangkok, Thailand</p>
5. Title of the Readiness support proposal	"Preparation of a National Adaptation Plan (NAP) for Bhutan, with a focus on the water sector"
6. Type of Readiness support sought	<p><i>Please select one option below (one box or circle)</i></p> <p><input type="checkbox"/> Readiness</p> <ul style="list-style-type: none"> <input type="radio"/> Establishing and strengthening national designated authorities or focal points <input type="radio"/> Strategic frameworks, including the preparation of country programmes <input type="radio"/> Support for accreditation and accredited direct access entities <p><input checked="" type="checkbox"/> Adaptation Planning</p>
7. Brief summary of the request	<p>The Kingdom of Bhutan launched its NAP process in 2015 with the definition of a national NAP road-map and an update of the 2012 NAPA. This NAP project aims to build on Bhutan's Nationally Determined Contribution (NDC) by accelerating the NDC vision to scale up adaptation in the medium- to long-term and by focusing on priority sectors in the NDC, such as water resources. While Bhutan has been budgeting national resources for adaptation through its Five Year Plans and the Bhutan Trust Fund for Environmental Conservation, climate change spending still forms only two percent of the national budget, demonstrating the need for external funding as highlighted in the NDC. In addition to financial limitations, Bhutan faces barriers related to coordination, learning and awareness, technical capacity for climate information, systematic identification and appraisal of adaptation options, and monitoring and evaluation. In order to enhance adaptation planning, all of these challenges need addressing.</p> <p>This proposed readiness request will support the Royal Government of Bhutan (RGoB) to advance its NAP process by building on existing capacities and enhancing institutions already in place for adaptation planning through the following outcomes:</p>

	<p>(1) Enhanced coordination, learning and knowledge management for an iterative NAP process; (2) Technical capacity enhanced for the generation of climate scenarios and impact assessment; (3) Vulnerability assessments undertaken and adaptation options appraised and prioritised; and (4) NAP formulated and capacity for implementation and monitoring established.</p> <p>These national level outcomes include both a comprehensive component on water resources as well activities across other climate sensitive sectors in Bhutan. These outcomes will address identified barriers to adaptation planning in Bhutan through the formulation of a National Adaptation Plan and the strengthening of institutional frameworks and systems to enable long-term decision making for climate change adaptation.</p> <p>This project will build on the strong synergies and existing UNDP and RGoB coordination with ongoing and past adaptation and readiness work in Bhutan, such as the GCF Readiness and Preparatory Support project “<i>Strengthening the Capacity of NDA to access resources from the Green Climate Fund</i>” (USD 400,000).”</p> <p>The formulation and implementation of Bhutan’s NAP will be led by the National Environment Commission Secretariat (NEC), through the Water Resources Coordination and Climate Change Divisions, in collaboration with the Gross National Happiness Commission Secretariat (GNHC) and other partners such as the Ministries of Agriculture and Forests, Economic Affairs, Health, Home and Culture Affairs, the National Centre for Hydrology and Meteorology, civil society organizations (CSOs), and academia.</p> <p>The National Environment Commission Secretariat (NEC) is the primary agency mandated to look after all issues related to environment and water in Bhutan, by the National Environment Protection Act, 2007 and the Water Act, 2011. The NEC has also been identified as the lead agency for the NAP readiness support and development of country work Programme in order to ensure synergy between the two, particularly in prioritization of adaptation options.</p>
<p>8. Total requested amount and currency</p>	<p>2,999,859 USD</p>
<p>9. Anticipated duration</p>	<p>48 months</p>

SECTION 2: PROJECT JUSTIFICATION *(Between 3-5 pages)*

2.1 Country Context:

1. The Kingdom of Bhutan is a small, land-locked, country situated in the Himalayas, with a population of 777,666¹ spread over 3.8 million hectares (ha). With a fragile mountain eco-system, forests account for 71 percent of land cover (2.7 million ha²), leaving only 14 percent (500,000 ha) for agricultural land. Although the agricultural land available is small, it is the lifeline of around 58 percent of the population³ and generates around 12 percent of GDP.⁴ Bhutan is a mountainous country with a stark variation in altitudes, from as high as 7,550 metres above mean sea level (msl) in the northern alpine region, to as low as 100 m above msl in the southern sub-tropical region⁵. This characteristic blesses Bhutan with abundant hydropower resources with a potential capacity of around 30,000 megawatts (MW).⁶ Electricity exports (mostly to India) accounted for 42 per cent of total export value and contributed 13 per cent of GDP in 2016.⁷
2. Bhutan's poverty rate reduced from 12 per cent in 2012 to 8.2 percent in 2017. However, the impressive poverty reduction progress of the past decade is hard won and could reverse due to the adverse impacts from climate change. Thirty percent of Bhutan's economic activity is highly susceptible to climate change. The projected climate changes in Bhutan include: (1) an increase in average temperatures, a consistent warming trend in the Himalayas, and one that is approximately three times the global average; (2) a decrease in precipitation during the dry season, and an increase during the wet season in the long term; (3) increased intensity of rainfall events, erratic rainfall patterns, and a shift in monsoon timing; (4) increased threats of hydro-meteorological and geological disasters due to climate risks, such as glacial lake outburst floods (GLOFs), landslides, earthquakes, river erosion, flashfloods, windstorms, and forest fires.
3. The hydropower, agriculture, and tourism sectors, which together account for almost a quarter of GDP, are all highly dependent on, and affected by, climate variability and natural hazards. Firstly, hydropower infrastructure is highly exposed to floods and climatic risks. Retreating glaciers could adversely affect these hydropower projects through disastrous flash floods downstream. Secondly, erratic timing of monsoons and prolonged drought have long-term adverse implications for agricultural productivity and food security. Farmers relying mainly on rain-fed agriculture are among the most vulnerable. A warmer climate could also lead to more and different type of pests and diseases; for example, potato tuber moths, which are pests of the subtropical region, have now been found in higher elevations in Bhutan.⁸ The tourism sector, which contributes around 6 percent of GDP⁹ is also vulnerable to adverse impacts from climate change, such as natural hazards.
4. Forest lands and biodiversity are also vulnerable due to the risk of forest fires. These forest fires, caused by drought and lightening, wildlife migration and reducing biodiversity, threaten Bhutan's complex and fragile ecosystems. These fires mainly occur during the dry, winter months (November to April). The risk of forest fires is likely to increase with the anticipated increases in temperatures.¹⁰
5. One of the most significant impacts of climate change in Bhutan is the formation of supra-glacial lakes due to the accelerated retreat of glaciers with increasing temperatures. Glaciers in Bhutan are receding at a rate of 30-60 meters per decade. The melting ice from these receding glaciers is increasing the volume of water in glacial lakes, raising the risk of Glacial Lake Outburst Floods (GLOF). These raise threats to life, livelihoods and development.¹¹
6. While Bhutan has a wealth of water resources (109,000 cubic meters), access to these water resources is difficult due to the highly dispersed nature of settlements, and their low population densities, rendering the per capita cost of delivering water services very high. Rivers are mainly used in Bhutan to produce hydroelectricity. Most of the existing hydropower plants in the country are run-off-the-river types, which means that electricity production fluctuates with seasonal variations in river

1 National Statistics Bureau, 2017. Bhutan at a Glance, (<http://www.nsb.gov.bt/publication/files/pub9wt9959wh.pdf>)

2 Land area data are from FAO Country Profile: Bhutan (<http://www.fao.org/countryprofiles/index/en/?iso3=BTN>)

3 Ministry of Labour and Human Resources, 2015, *Labour Force Survey Report 2015* (<http://www.molhr.gov.bt/molhr/wp-content/uploads/2016/05/LFS2015-Report-Final.pdf>)

4 IMF, 2016, *Article IV Consultation Report*

5 World Bank, 2016, *Managing Environment and Social Impacts of Hydropower in Bhutan*

6 *Ibid.*

7 National Statistics Bureau, 2017. *Statistical Yearbook of Bhutan 2017*.

8 Ministry of Agriculture and Forestry, 2016, *State of the Climate Change Report for the RNR Sector May 2016*

9 IMF, 2014, *Selected Issues Report*

¹⁰ *Ibid.*

¹¹ Asian Development Bank. *Climate Change Country Risk Assessment*. 2014. <https://www.adb.org/sites/default/files/linked-documents/cps-bhu-2014-2018-sd-04.pdf>

discharge. Bhutan consequently finds itself exporting electricity cheaply during summer months and importing expensive electricity during the winter.¹²

7. The resultant water shortage affects agriculture, a primary economic activity in Bhutan, through its impact on irrigation, change in crop diversity, delayed sowing with shifting seasons, decrease in agricultural yield (loss of production and quality) as brought about by drought, loss of soil fertility due to erosion and loss of nutrient due to seepage, and increased risk from existing and new diseases and pests. Rice growing areas will also be heavily affected and with the possibility of increasing temperature, agro-ecological zones are expected to shift northward and to higher altitudes (GNHC, 2011).
8. Increased water security through integrated water resources management (IWRM) is thus defined as a priority adaptation need in the NDC. It has also been identified as a key, cross-cutting sector for adaptation in the country, calling for further water-specific risk assessments. Bhutan has identified the water sector as a national priority, and seeks to identify synergies and identify areas of cooperation in terms of water resources management and development among different sectors in the 12th Five Year Plan.
9. The NAP process serves both national and global objectives for Bhutan. As part of the implementation of the Paris Agreement, various outputs of the NAP process will contribute to Bhutan's obligations under the UNFCCC. It is expected that the NAP will serve as Bhutan's adaptation communications. Nationally, under the upcoming twelfth Five Year Plan, the National Key Result Area on "*Carbon neutral, climate and disaster resilient development enhanced*" ensures that agencies gear their activities towards achieving this objective.
10. The Royal Government of Bhutan aims to prepare a National Adaptation Plan (NAP) which is **actionable and participatory in its implementation** and incorporates a seamless **monitoring and evaluation (M&E)** process both at the national and sub-national level. There will be a strong focus on **water as a multi-sectoral issue** with comprehensive risk assessments and management, which is one of the key enabling factors for hydropower and agricultural sectors. The anticipated impacts of this proposed project would be stronger integrated systems for planning, budgeting and monitoring as well as identification of programmes to reduce vulnerability to climate change and sustained livelihood improvement of the poor and vulnerable.

2.2 Baseline – Adaptation Planning Context:

NATIONAL ADAPTATION PLAN PROCESS OVERVIEW:

11. Bhutan's NAP process builds on the on-going work in country at a policy, planning, and implementation level, including the NAPA (submitted in 2006; updated in 2012), related projects, and the NDC. The NAP process itself has evolved through a series of workshops and stakeholder consultations (including government sectors, donor agencies and universities). The process is led by the National Environment Commission Secretariat (NECS).
12. The Royal Government of Bhutan (RGoB) officially launched the NAP process in May 2015 during a "Dialogue on Climate Resilient and Carbon Neutral Development" in Thimpu, which also acted as the launch of the NDC. It was recognised that a clear climate change policy should support the NAP process, and that the NAP process should include an implementation strategy and timeline. The NEC conducted preliminary stocktaking for the NAP in June 2016 during a national workshop on "Climate Change Information and Tools for Vulnerability and Adaptation." It has subsequently conducted a series of staggered meetings with sectors to identify priority needs.
13. Despite its status as an LDC, the RGoB has already budgeted its own limited resources towards climate change adaptation and mitigation. In the period of 2008-2013, approximately two percent of public spending was on climate change. In 2012-2013, of all climate change finance in country, 39 percent was from national sources, and 61 percent from external funding. External funding came from bilateral sources (India), and from multilateral sources (UN agencies, the Global Environment Facility and the World Bank). The importance of external funding to enable the formulation and implementation of the NAP process has been highlighted in the NDC. The Bhutan Trust Fund for Environment Conservation has been set up to provide funding for environmental conservation projects including, addressing climate change mitigation and adaptation. In addition, the INDC submitted to the UNFCCC in 2015 has indicated ten priority adaptation needs. The NAP Process will build on this foundation and catalyse the scaling up of adaptation implementation to address climate risk in the medium term, beyond the urgent and immediate needs indicated in the updated NAPA.

¹² Asian Development Bank, "[Water: Securing Bhutan's Future](#)"

14. This proposal advances the NAP Process to the next stages by supporting the preparation of the NAP framework and strategy, the NAP Implementation Framework at both the national and sub-national levels, and a NAP Results Based Monitoring Plan. Outcomes and activities have been identified in line with the stocktaking and NAP roadmap outlined at the national level.

STRATEGIC DOCUMENTS AND PROCESSES:

15. Bhutan's development process in general aims to encompass environmental priorities through its world-famous "Gross National Happiness" approach. The following additional complementary processes and policies will also be important to consider while advancing the NAP process:

- a) **Bhutan 2020**, outlines the country's vision document outlining development goals, objectives and targets with a twenty-year perspective to maximize GNH. As one of the four main GNH objectives, it enunciates that development pursuits are to be carried out within the limits of environmental sustainability and without impairing the ecological productivity and natural diversity, thus providing the overarching policy context for sustainable development implicitly encompassing one that is resilient to, and mitigates, climate change.
- b) **The National Forest Policy**, first formulated in 1974 and subsequently revised in 1979, 1991, and most recently in 2012, serves as the main guiding policy framework for forest management and nature conservation. The new Forest Policy of 2012 recognizes the important role of sustainable forest management in CC mitigation and adaptation.
- c) **National Environment Strategy (NES)**: First published in 1998, this identifies and describes the main avenues and approaches for sustainable development in Bhutan. The strategy is currently under review. In the absence of a separate CC policy, the revised NES will, among other things, focus on low-carbon and climate resilient development. Unlike prior NES versions, this will address both climate change mitigation and adaptation.
- d) **Bhutan Water Vision and Policy**: Adopted in April 2003, this establishes Bhutan's water vision and describes the approach and context of water resources management from a broad, multi-sectoral perspective with recognition of the responsibility of the various sectors in policy implementation. The policy advocates for integrated water resources management (IWRM) to address existing and emerging water issues, including those emanating from climate change.
- e) The **National Environment Protection Act (NEPA), 2007**¹³ and the [Water Act, 2011](#), provide the necessary mandate to the NEC for taking the lead in adaptation planning.
 - NEPA's fourth chapter ensures the "Protection of Environmental Quality" to "ensure reasonable amounts of water for environmental flows to protect the freshwater biodiversity and maintain ecosystem functions."
 - The **Water Act** states that, *inter alia*, the NEC coordinate national IWRM, and adopt strategies, plans and programmes for achieving this purpose. The [Water Regulation of Bhutan, 2014](#), was adopted by the NEC to ensure the effective enforcement of the objectives and purposes of this act.
- f) The [Second National Communication to UNFCCC](#) has identified priority adaptation actions for different sectors including water and climate related disasters. These include (1) Conduct comprehensive water resources assessment to improve understanding of water resource availability and the effects of climate change in order to then develop appropriate adaptation measures (process was conducted in 4 *dzongkhags* (districts) through NAPA II¹⁴); (2) Increase resilience of water resources to the impacts of climate change; (3) Water Resources Management through adoption and implementation of IWRM and eco-efficiency by using river basin framework for planning (completed); (4) Strengthening Climate observation and network for early warning and forecasting of extreme events understanding climate change (underway through NAPA II); and (5) Mainstream CC & WRM into national plans and programmes (reflected in the upcoming 12th Five Year Plan).
- g) **National Adaptation Programme of Action for Climate Change (NAPA)**, was produced in 2006 and regarded Glacier Lake Outburst Floods as the highest priority climate hazard. The NAPA was reviewed and updated in 2012 to incorporate new climate hazards such as windstorms and cyclones and also to take stock of the implementation status of the priority projects;
- h) **Eleventh Five Year Plan (FYP)**: The Eleventh Five-Year Plan document (2013-2017) was recently approved by the new government. The overall goal of 11th FYP is "self-reliance and inclusive green socio-economic development." It seeks to promote carbon-neutral and environmentally sustainable development, and engenders mainstreaming of environment, climate change and disaster risk reduction as cross-cutting issues along with gender and poverty reduction.

¹³ NEC. <http://www.nec.gov.bt/nec1/index.php/water/>

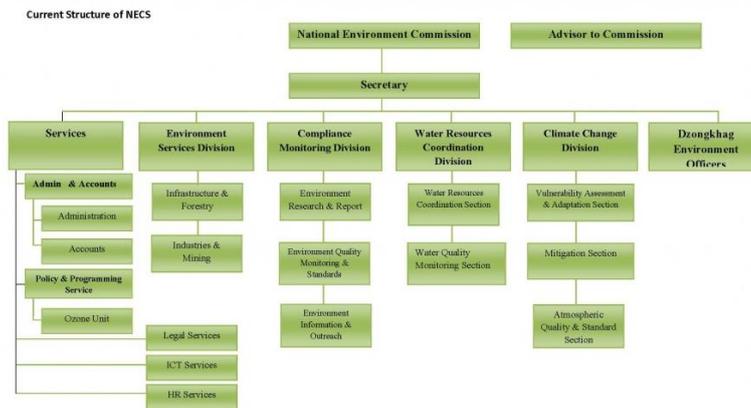
¹⁴ For more information on Bhutan's NAPA II, please refer to Section 14.

- i) The NAP process can contribute to the National Key Result Area 6 of the upcoming **12th FYP (2018-2023)**: “Carbon Neutral, Climate and Disaster Resilient Development.” This has been improved from the 11th FYP with NECS as the lead agency coordinating this NKRA.
- j) In the **INDC**, Priority 1 is listed as “Increase resilience to the impacts of climate change on water security through Integrated Water Resource Management (IWRM) approaches including: Water resources monitoring, assessment, and mapping, Adoption and diffusion of appropriate technologies for water harvesting and efficient use, Climate proofing water distribution systems, Integrated watershed and wetland management.”
- k) **Climate Change Policy of Bhutan**: The draft policy which is expected to be adopted in 2018, is a comprehensive national climate change policy following several regional consultations geared towards understanding gaps and issues arising from climate change impacts in Bhutan. It aims to build resilience to climate change through the National Adaptation Plan process as one of the measures.

COMPLEMENTARY INITIATIVES:

16. The NAP proposal also aims to complement existing projects and build on progress from other efforts in the country such as:
- a) The on-going **GEF-UNDP project, “Enhancing Sustainability and Climate Resilience of Forest and Agricultural Landscape and Community Livelihoods,”** is especially compatible through its Outcome 3 that focuses on improving community’s livelihoods through building climate resilient options by various means.
 - b) Gross National Happiness Commission is developing a GCF readiness and preparatory support project, **“Strengthening the Capacity of NDA to access resources from the Green Climate Fund”** amounting to USD 400,000. The project will be used to strengthen the capacity of the NDA, including strengthening institutional capacity, supporting engagement with stakeholders at local and national level through development and strengthening of country coordination mechanism, and supporting oversight capacity.
 - The NEC will be the lead agency for both implementation of NAP readiness program as well as the development of a Country Work Program (CWP) which is supported under NDA strengthening. The prioritization exercise of adaptation options under the NAP will provide inputs to the CWP. In addition, a protocol for management of data and information will be developed under NAP to streamline and harmonize and standardize management of data and information. CWP will include all adaptation options and NDC priorities providing strategic guidance and priorities in the country.
 - The development of a CWP will comprise stakeholder consultation, stocktaking of all climate change related policies and initiatives, formation of taskforce, field visits and identification of strategic investment priorities. Therefore, information generated from the NAP process will be used as an input for the preparation of the CWP.
 - The stocktaking of climate change related policies and listings through consultation with relevant agencies such as National Environment Commission Secretariat, Ministry of Agriculture and Forests, Ministry of Economic Affairs, Ministry of Works and Human Settlement, will help feed into informing the NAP process. Additionally, there will be a joint planning exercise to ensure sequencing of activities to avoid any duplication and ensure synergies between the two projects.
 - c) The ADB’s **“National Integrated Water Resources Management Plan”** (2016) aims to establish the framework and priorities for the implementation of integrated water resources management (IWRM) in Bhutan. The Plan is based on a comprehensive assessment of the current situation and future prospects in light of growing water demands and the threat from climate change. The Plan establishes the principles and mechanisms under which agencies involved in the water sector, together with river basin stakeholders, can coordinate their respective plans and activities, as well as collectively monitor progress toward attainment of Bhutan's IWRM objectives.
 - d) ADB’s **“National Irrigation Master Plan,”** (2016) will present a 15-year action plan and roadmap for the development of climate adaptive irrigation systems and irrigated agriculture in the country to help attain broad agriculture sector goals of food and nutrition security and enhanced rural incomes.
 - e) The **NAPA II** (2014 - 2018), **“Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions,”** aimed to build capacities at community, local and national levels to prepare for and respond to climate-induced hazards, thereby reducing potential casualties and loss of infrastructure, livelihoods and assets.
 - f) Climate Investment Funds’ **Pilot Program for Climate Resilience** (PPCR) assists Bhutan’s national government in integrating climate resilience into development planning across sectors and stakeholder groups. World Bank’s **Strategic Program for Climate Resilience** (SPCR) (2017) builds on ongoing initiatives and activities throughout Bhutan while providing a structure to incorporate resilience into development planning, putting in place a coordination mechanism and process of engagement on climate issues building on existing institutions, and developing a roadmap to build capacity and increase investment opportunities in the future.

- Bhutan’s SPCR includes: an innovative eco-system based approaches to Integrated Flood-Based Management (IFBM) of river basins; Climate-Oriented Integrated Watershed Management Plans; Climate SMART Human Settlement planning; building a strong information base for weather and climate services for resilience; a robust and innovative Resource Mobilization Strategy, with non-traditional financing options and sustainability mechanisms; climate-resilient CSMIs, and the promotion of adaptation business services; transformational capacity-building approaches; a strong Gender Equity and Social Development (GESI) component; and “Happiness” developmental performance reporting.
 - The focus of the SPCR is thus on select sectoral assessments, and priority areas, whereas the proposed NAP project aims to create a holistic and comprehensive picture of the water sector. The NAP project will draw on findings and recommendations from the assessments of the SPCR, which is being coordinating by the NDA. The project will aim to coordinate on activities and share findings through open communication.
 - As per the official SPCR documentation, they are also committed to complementing the ongoing NAP process: “Though similar in some ways to the NAP in addressing medium to long-term climate-resilience priorities, the SPCR will not substitute the NAP process. Rather, it seeks to complement the overall NAP objective and process with complementary Investments that effectively address Bhutan’s medium and long-term adaptation needs.” (Section 3, SPCR Final Document).
 - In particular, the SPCR highlights the following areas for coordination, which this proposed project will also target: (a) Multi-sector focus on water security issues, through their investments (described above). (b) They will also create a PPP modality that helps to create an enabling environment for the NAP PPP modality. All six SPCR Investments have CSMI incorporated into their program activities and outcomes. For example: Investment “I4” on Climate-SMART planning; the inter-woven I5 private sector activities on private sector integration; and, Investment “I6” on climate curriculum development all prioritize industry engagement. These private sector related Investments will all rely on the support of the BCCI, the Bhutanese Association of Women’s Enterprises, and the Association of Bhutanese Industry.
- g) The support requested through the Climate Technology Centre & Network (CTCN) is focused on reducing Green House Gases from transport sector, by improving the urban transport for municipalities in Bhutan through the development of a mobility plan, preparation of detailed project report for [Intelligent Transport System \(ITS\) and Capacity Building for reducing Green House Gases from transport sector](#) focused towards mitigation. This is different from this proposal which focuses on adaptation planning.
17. The proposed project will ensure the participation of key multilateral agencies in Bhutan (i.e. World Bank and Asian Development Bank), bilateral donors (Japan International Cooperation Agency and European Union), and the Government of India. All these actors are already active in Bhutan, and will be included in the stakeholder engagement plans.
- INSTITUTIONAL ARRANGEMENTS:**
18. Bhutan already has an extensive existing network of institutions and committees to coordinate all matters relating to the environment:
- a) The **National Environment Commission (NEC)**, chaired by the Honourable Prime Minister, is the main high-level, multi-sector coordinating body on environmental issues. It also serves as the National Climate Change Committee (NCCC). As the highest level decision-making body, it will endorse the NAP document and the NAP process. The Water Resources Coordination Division in particular, as mandated by the Water Act, will be taking the lead.



Source: [Organogram, NEC](#)

- b) The **Climate Change Coordination Committee (C4)** was established in 2016, with the objective of strengthening and revamping the erstwhile Multi-Sectoral Technical Committee on Climate Change. It serves as a forum to discuss and coordinate **matters related to climate change** in Bhutan and make recommendations to the NEC/NCCC. It has 15 senior executive level members, representing governmental agencies, private sector, and civil society organizations, and is chaired by the Secretary of NEC Secretariat. It will serve as the technical level review body for the NAP process and make recommendations to the NCCC for their consideration.
- c) The central **Mainstreaming Reference Group (MRG)** was formed with the NEC and Gross National Happiness Commission (GNHC) taking the lead role, to institutionalize the mainstreaming of environment, climate and poverty concerns into planning. The group is multi-sectoral in nature with representation from policy, planners, environment specialists, finance experts and NGOs seen as a relevant body to provide expertise on policy making, advocate cross cutting issues at all levels of planning and implementation. As of June 2016, 20 local MRGs have been established in all 20 districts to facilitate mainstreaming of cross cutting issues in the LG development plans and programmes.
19. The **Country Coordination Committee** of the NDA readiness proposal exists to help NDA to make decisions relating to GCF and other projects. This coordination committee is chaired by the NDA and will have member representatives from key sectors including private sector, CSOs, and representative of women's and other vulnerable people's groups to review project ideas and proposals against GCF technical guidelines. An estimated USD 65,000 has been allocated to NEC under the NDA readiness support to take the lead in the development of Bhutan's Country Work Programme (CWP) which includes Identifying strategic investment priorities through a consultative process. The prioritization exercise of adaptation options under the proposed GCF NAP project will provide inputs into this committee and the CWP process in an iterative manner.

INFORMATION AND KNOWLEDGE DATABASE:

20. The following is a list of the existing assessments and studies conducted. These will be built upon through activities in Outcomes 2 & 3:
- Vulnerability and adaptation assessment 2011 (during the Second National Communication to UNFCCC) ([link](#))
 - Technology Needs Assessment for climate change adaptation 2013 ([link](#))
 - CC vulnerability and Adaptation planning report, commissioned for NAPA III project 2016
 - Gender Analysis Report under NAPA III Project 2016
 - Integrated Water Resource Management Plan 2016 ([link](#))
 - Feasibility Study for Bhutan GCF project 2017
 - Asian Development Bank, "Water: Securing Bhutan's Future" (2016) ([link](#))
 - National Irrigation Master Plan 2016 ([link](#))
 - Integrated water resources inventory for four pilot districts (assessment ongoing under NAPA II Project)
 - A preliminary water resources assessment and mapping for four Dzongkhags has been conducted through Bhutan's Second NAPA Project.
 - Power system Master Plan for hydropower is being revised and will also look at climate change impacts.
 - Bhutan Water risk scenario and opportunities 2016 published by NECS and WWF ([link](#)).
 - Wangchhu basin management plan, 2016 is developed. ([link](#))
 - Key assessment required for the adaptation identified through the National water symposium held in May, 2017.
 - Study on fishery resources on Bhutan (ongoing)

- p) Aquatic biodiversity assessment-a pilot study in Bumthang- UIWCE ([link](#)).
- q) Aquatic diversity assessment in Mangdechhu developed and published by UWICER ([link](#)).
- r) Institut für Waldökologie (IFE), BOKU-Universität für Bodenkultur, “Drought stress tolerance in climate change adaptation potential of two main forest ecosystem of Bhutan” (Norbu Wangdi, 2016) ([link](#))
- s) A series of studies on “Flood Protection alongside the Mao Rier” supported by Government of the Netherlands,: The studies will deliver flood hazard maps and flood risk maps, identification and prioritization of potential solutions and selection of most promising solution or set of solutions for flooding problems in Gelephu.

There is significant stocktaking at this stage of what exists and doesn’t in terms of required information. But a deeper stocktaking exercise will be required to assess the gaps in information in these studies, and the consequent research priorities which will need to be determined.

21. The **Third National Communication (TNC)** is under development with the support of UN Environment with which synergies and parallel studies will be planned. The TNC will be generating climate scenarios following 3 Representative Carbon Pathways (RCPs) and using 2-3 Global Circulation Models (GCMs) and downscaling the projections using appropriate tools. Baseline vulnerability assessment will be conducted for key sectors using appropriate biophysical models. The project will also initiate capacity building for generating climate projections and institutionalizing the process under the National Centre for Hydrology and Meteorology (NCHM). Capacity building for conducting Vulnerability assessment and prioritization of adaptation actions will also be initiated for the key sectors. The actions and outputs from the TNC will serve as baseline for enhancing the institutional capacities for generating climate scenarios and conducting vulnerability assessments and prioritization. The intention in the proposed NAP project is to increase the number of GCMs and conduct thorough vulnerability assessment for the key sectors.

GENDER CONSIDERATIONS:

22. Under the enhanced implementation of the INDC/LECB second phase programme, a gender assessment will be undertaken to clearly understand climate-gender links. This comprehensive assessment will also serve as the baseline information for any future climate change related projects and activities related to addressing gender issues. This project will collaborate with the ongoing INDC initiative to ensure that a gender action plan on climate change adaptation is clearly articulated and addressed.
23. As part of the UNDP/GEF/LDCF’s project on “**Enhancing sustainability and climate resilience of forest and agriculture landscape and community livelihoods in Bhutan,**” a Gender Analysis Report was written on gender mainstreaming from the project. These lessons will be under consideration for this proposal’s proposed activities as well.

2.3 Stakeholder Consultations:

24. Three NAP stakeholder consultations were held between March 2016 and July 2017 and engaged representatives from line ministries and key departments. Components of the project to be covered under the GCF grant were presented to these participants to construct the baseline, identify gaps, and propose activities. The proposal was validated in the stakeholder meeting held on July 12, 2017. Additional bilateral discussions occurred with the BIOFIN project, NDC Implementation LECB programme, as well as the strategic programme for climate resilience (SPCR).
25. Through the series of stocktaking and sector engagement meetings, emerging areas for NAP process support include enhancing climate information and knowledge management, addressing climate risk management in vulnerable sectors specified in the NDC, strengthening prioritisation and appraisal of adaptation investments, and building monitoring and evaluation systems to strengthen evidence and lessons learnt on adaptation.
26. The National Environment Commission Secretariat along with the Ugyen Wangchuck Institute for Conservation and Environmental Research held a National Water Symposium Day in May of 2016. Also in 2011, the first ever Bhutan National Water Seminar was held to assess the knowledge and resource gaps and also the institutional linkages within Bhutan. The findings of this seminar inform the activities under this proposal.
27. During a Stakeholder Meeting on Water for National Adaptation Plans held on 6th October, 2016, officials from the Public Health Engineering Division, Water Supply and Sanitation Division from Thimphu Thromde, and officials from Climate Change Division (CCD), and the WRCD of NECS convened. The purpose of the meeting was to discuss activities related to water and adaptation issues under the NAP project and also to gather available information from the sectors. The Chief of the WRCD was part of the discussion as well. The Chief indicated that apart from priorities of WRCD she also wanted to discuss the issues with the main interdependent sectors on water such as health, agriculture, etc., to take stock of what has been done and what requires support from the NEC.

28. During the “Dialogue on Climate Resilient and Carbon Neutral Development,” held on 18th – 20th May, 2015 in Thimphu, revealing insights emerged which have informed this proposal. During the presentations, it was observed that coordination amongst sectors and organisations were either lacking or poor, resulting in duplication of work and poor understanding of clear roles and responsibilities of sectors involved. This issue was highlighted particularly for activities under water resources. The issue of finance was also repeatedly highlighted: many sectors raised issues on sustainability of climate change related activities once the project funding ceases. There were funding gaps in sectors such as transport, where money was made available only for studies and not for implementation of the recommendations.
29. Other consultations include: May 2015 Stakeholder consultations during dialogue on climate resilient and carbon neutral development in Thimphu (which was also instrumental in the preparation of the NAP process for Bhutan). Two additional consultations were held: an NEC Meeting held in February 2016; and the June 2016 workshop and stocktaking.

2.4 Theory of Change:

30. **There are several barriers to the advancement of the NAP process in Bhutan.** This proposal seeks to address some of the main barriers which are described below.

COORDINATION:

31. There are several existing institutions and coordination mechanisms in Bhutan which form the basis of climate change adaptation planning in the country including the NCCC, C4, and MRGs. Thus far, these coordination structures are oriented towards coordination of immediate and urgent needs for climate change adaptation. Their cooperation for long term planning is inhibited by the lack of an agreed protocol or framework that defines the technical contribution and roles of each institution towards an iterative NAPs process – i.e. a process that will not be a one time plan, but will rather lay the architecture for long term adaptation planning. NAP process coordination structures have to take into account institutions that can support longer-term planning which may require participation of a broader set of institutions than is currently the norm.
32. In addition, there are gaps in coordinating relevant climate change information. Currently, several agencies and projects collect climate change adaptation relevant information (such as risk and vulnerability assessments), but there is no consolidated picture due to the lack of a common platform to share this information. There are no data sharing protocols in place to link information, therefore the existing data remains fragmented.
33. A comprehensive inventory of ongoing adaptation initiatives is not available (government, community-based organizations, and indigenous adaptation practices). This could help diverse departments and ministries incorporate adaptation into their planning. Lastly, sector specific information on adaptation is largely absent. For example, during the preparation of the National Integrated Water Resources Management Plan, one of the main challenges faced was lack of data and information on water resources at the local and community levels in both rural and urban landscapes.
34. *These issues will be addressed by setting knowledge management systems (such as the adaptation platform) and protocols in place, and developing a stakeholder engagement plan, which will outline specific roles and responsibilities on different aspects of adaptation planning (through activities in 1.1 and 1.3).*

LEARNING AND AWARENESS:

35. In order to truly grasp the complexity of adaptation planning, planners, civil servants, and government officials require a broad-based understanding of climate change adaptation issues. These do not refer to specialised technical skills required to model specific scenarios for example, but an understanding on how climate change adaptation issues touch upon all development interventions and the linkages between them. This broad-based learning is required for decision-makers to prioritise activities that are relevant to climate change adaptation. Such learning does not currently exist within government bodies in Bhutan at the scale that it should.
36. *This barrier will be addressed through the establishment of learning exchange programmes, trainings of civil servants, and peer-to-peer knowledge exchange opportunities (through activities in 1.2).* This will lead to improved climate risk informed planning and management.

TECHNICAL CAPACITY FOR CLIMATE INFORMATION:

37. Bhutanese research institutions and universities are not currently producing the quality and quantity of climate information and research required to advance adaptation planning. The research and information needed includes downscaled scenarios,

climate modelling, hazard maps, impact assessments, and risk and vulnerability assessments. Through some of the NAPA projects, data from observation systems has been collected over the last few years, but this data needs to be interpreted. There is limited field-level sharing among scientific academic and research communities in Bhutan. Scientists, academics and researchers at the universities around Bhutan can play a major role in addressing gaps, creating some of the missing data and knowledge, and share it further with policy-makers. *These barriers will be addressed through the inclusion of activities from 2.1 and 2.2.*

38. Sector specific, climate vulnerability and risk data that is cross-referenced with dzongkhag level information does not exist. This is problematic for adaptation planning. In particular, the water sector, which has been identified as very vulnerable through the INDCs etc., has not been assessed comprehensively. *This will be addressed through activities in activities in Outcome 2 & 3, through the preparation of capacity for sector specific studies, and several other kinds of studies which can enable more informed decision making.*

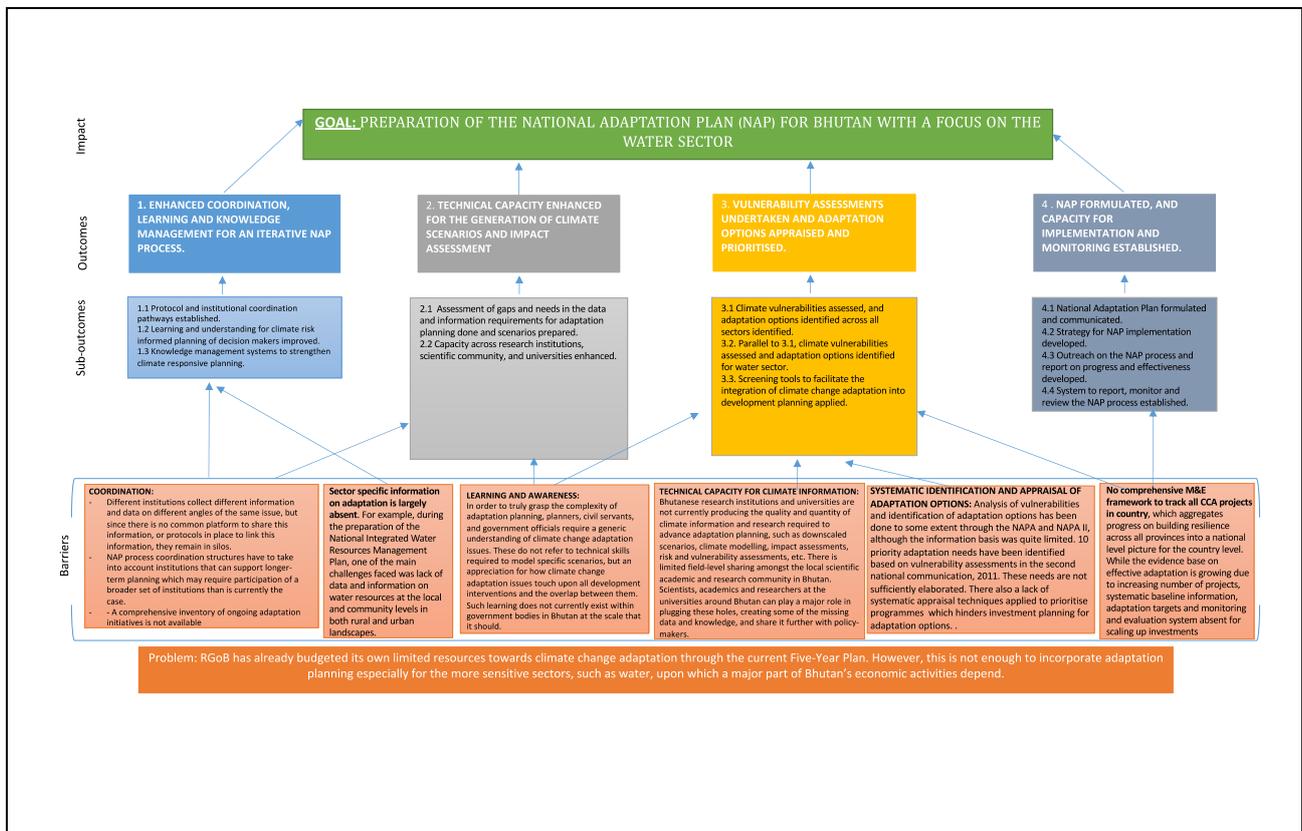
SYSTEMATIC IDENTIFICATION AND APPRAISAL OF ADAPTATION OPTIONS:

39. Analysis of vulnerabilities and identification of adaptation options was completed to some extent through the NAPA and NAPA II, although the information basis was quite limited. Ten priority adaptation needs have been identified based on vulnerability assessments in the second national communication from 2011. These needs are not sufficiently elaborated. These initiatives have laid the foundation for adaptation planning, however knowledge of which adaptation options and practices should be upscaled is extremely limited. There is also a lack of systematic appraisal techniques applied to prioritise programmes, hindering investment planning for adaptation options. For example, the current Eleventh Five-Year Plan (2013-2018) lacks robust climate resilience options within key sector sectors such as hydropower, agriculture, and transport, which could be improved through continued and iterative communication with other sectoral partners. *This will be addressed through the Outcome 3, where a systematic identification and appraisal of adaptation options will be conducted.*

MONITORING AND EVALUATION:

40. Bhutan is missing a comprehensive, result-based monitoring and evaluation (M&E) mechanism which tracks all adaptation projects and aggregates progress on building resilience across all provinces into a national level picture for the country level. While the evidence base on effective adaptation is growing due to increasing number of projects, systematic baseline information, adaptation targets and monitoring and evaluation system absent for scaling up investments. *This will be addressed through Outcome 4, where a comprehensive M&E framework will be established in conjunction with existing government tracking tools.*

Please see the diagram below for a graphical representation of the theory of change.



SECTION 3: PROJECT/ PROGRAMME DESCRIPTION (No more than 3 pages)

The proposed project aims to provide support to the RGoB to advance the NAP formulation and implementation process, as well as to put in place a robust implementation monitoring and evaluation system. The anticipated outcomes and their accompanying activities are designed to address key challenges that have been identified in part by the NDC, FYP, NAPA 2012, and National Integrated Water Resources Management Plan, and build in lessons learned from completed and ongoing projects in related areas.

OUTCOME 1: ENHANCED COORDINATION, LEARNING AND KNOWLEDGE MANAGEMENT FOR AN ITERATIVE NAP PROCESS.

This outcome is focused on building the groundwork and addressing challenges and gaps to in coordination and learning (Barriers 1 & 2) to advance the NAP process.

1.1. Protocol and institutional coordination pathways established.

This output will include two activities. First, *developing guidelines and a protocol to facilitate the NAP process for planners and anyone else engaged in the NAP formulation and implementation across institutions at all administrative levels and across sectors to provide guidance on the iterative nature of the process.* As the NAP formulation is a long-term iterative process, a protocol therefore is needed to inform all national coordinating agencies and will be part of the National CC Policy, which is currently being developed.

Secondly, *developing a stakeholder engagement plan for the NAP process in collaboration with the Climate Change Coordination Committee (C4), drawing upon stakeholder consultations already undertaken during the launch by the Prime Minister, Royal Government of Bhutan (RGoB) in March 2016, and the consultations conducted during the activities of the Readiness country programme through the NDA.* Stakeholders from the water sector, ministries in cross-cutting issues, sectoral ministry representatives, and representatives of grassroots NGOs, CSOs, women's groups, DPOs, will be included in the engagement plan. A joint planning exercise with the NDA project will ensure the different stakeholder engagement plans will be complementary to each other. In addition, all the reports taken from previous stakeholder consultations will help ensure that insights inform the work-planning and inception phase activities. A joint stakeholder consultations will be conducted which will include the same

stakeholders, along with members working on the NDA Readiness programme, and the Country Programme document led by the NEC.

1.2. Learning and understanding for climate risk informed planning of decision makers improved.

This output includes activities addressing the learning barriers of decision makers, which will collectively improve the capacity of different sets of actors who are engaged in adaptation planning and implementation. An important part of building capacity is to ensure the decision makers of the process are informed on adaptation planning in other similar contexts.

Firstly, this means a proper understanding of the status quo. To this effect, this proposal includes the following activities:

- *Prepare a capacity and skills assessment of institutions at the policy, organizational and operational level that are relevant to the NAP process in generating climate information, risk and vulnerability assessments and adaptation analyses and effective knowledge management.*
- *Prepare a strategy to address and strengthen/implement the capacity and skills of institutions for generating relevant information in supporting the NAP process.* This will be undertaken by upgrading the basic capacity development plan for climate change adaptation developed under Bhutan's NAPA II Project and aspects of the SPCR & PPCR project are focusing on 3 institutions to assess their capacity, human resource etc.

To this effect, the proposal identifies the following activities:

- *Undertake annual peer to peer exchange and technical trainings internationally, and within the broader Asia-Pacific region, to learn and share lessons on adaptation planning through the following:*
 1. **Regional and Global NAP Expo(s):** The NAP Expo is an outreach event organized by the Least Developed Countries Expert Group (LEG) under the UNFCCC, in collaboration with various bodies and organizations, to promote exchange of experiences and foster partnerships between a wide range of actors and stakeholders on how to advance National Adaptation Plans (NAPs). Attendance by relevant decision makers and policy officials will be an important component in peer-to-peer exchange as well as lesson sharing.
 2. **Regional Adaptation Forum(s):** Attendance at such international fora, akin to the **Asia Pacific Adaptation Forum** or the **Gobeshona Annual Conference for Research on Climate Change in Bangladesh**, which gather adaptation practitioners (at global, regional, national, and sub-national levels) provide a valuable platform for improving the understanding of climate risk informed planning, as evidenced by those in similar contexts.
 3. **Focused Peer-to-Peer Technical Trainings Overseas:** In order to plug the gaps in knowledge on technical activities, including how to incorporate vulnerability studies and assessments into government planning, methods of prioritization of adaptation options, and integration of CCA into budgeting and planning systems, the project proposes three sets of focused Peer-to Peer Technical Trainings Overseas where officials from relevant agencies will have the chance to learn with first hand experience and exposure from similar and relevant stakeholders of other countries, and apply it to Bhutan's context. The trainings will incorporate hands-on trainings, visits, and exchanges.

The following tours will be planned with counterparts of countries in the larger Asia Pacific region (like Thailand or or the Philippines):

- a. In Year 1, there will be a **"Policy level"** focused training for approximately four or five members from technical agencies/ departments, GNHC, finance ministry, Department of Local Governments, C4 members.
- b. In Year 2, there will be a **"Vulnerability Assessments"** focused training for approximately four or five members from the technical agencies or departments, who will be engaged in vulnerability assessments and prioritization of adaptation options.
- c. In Year 3, there will be an **"Integration of CCA in Planning and Budgeting "** focused training for approximately four or five members from the GNHC, technical departments, and department of local governments.

Criteria for Selection: There will be balanced representation from district level administrations, and planners from most vulnerable areas, climate sensitive agencies and departments. The selections of the participants will be from agencies who will be part of the overall NAP process and majority of the trainings/capacity building will be provided to sectors and agencies implementing the projects.

To ensure **continuous learning and knowledge application**, there will be periodic follow ups through webinars and teleconferences. Upon returning, the attendees of the technical trainings will be included as facilitators of the NAP process, conduct consultations with local bodies, and review the NAP.

- *Deliver a module-based training programme in collaboration with Royal Institute of Management for both entry level and civil servants at all levels on climate change adaptation and development planning. Embed the training curriculum in national training units/organisations and collaborate with potential capacity building initiatives under the Paris Capacity building initiative. This activity will provide civil servants with the appreciation for how climate change adaptation issues touch upon all development interventions and the overlaps between them. The training will include a module on concerns of vulnerable groups (i.e. women, indigenous groups, people with disabilities, etc).*

1.3. Knowledge management systems to strengthen climate responsive planning.

Presently, there is no comprehensive list of all adaptation related actions in country. The intention for this output is to create a "one stop platform" for all CCA efforts in Bhutan. This will facilitate open knowledge exchange, information transparency, and improved coordination efforts between different actors. To do so, the first step, will be to *develop a protocol for management of data and information for climate change adaptation (data production, collection, processing, storage and communication by harmonizing/standardizing indicators)*. This will be achieved through a protocol manual and a workshop will all the relevant staff members.

The second step will be to *establish an adaptation platform for Information and knowledge management to support climate responsive planning and the NAP process*. This will be based on the protocol above, and will include data storage and dissemination and integration with other existing environmental and socio-economic information systems. It will include data storage and dissemination and integration with other existing environmental and socio-economic information systems. The adaptation platform here refers to both online (interactive) and instituted knowledge, information and experience sharing platform.

Such an adaptation platform would hold little functionality or benefits without the continuous and rigorous supply of climate information, and a dedicated base of users. Therefore, the next step will be to *support access to climate change information for sectors and stakeholders in partnerships with other institutions and programmes that also utilize climate information by strengthening their capacity in comprehending and using the available climate information*. This will be achieved through training workshops and by operationalising the protocol developed in the 1.3.1.

Lastly, an additional essential component is to link in-country government efforts with those of related actors. To this effect, the last step will be to *undertake structured dialogue with institutions working on localising SDGs to ensure that climate change risks for relevant SDGs goals and targets are included in the NAP stocktaking exercise, and reflected on the platform*. UNDP and other UN agencies are partnering with the Government to localize SDGs through the Five Year Plan process. The SDGs have been integrated into the 12th Five Year Plan through the 16 National Key Results Areas (GNHC is the lead agency in the formulation of the 12 FYP). The relevant national institutions include GNHC, Ministry of Agriculture and Forest, National Centre for Hydrology and Meteorology, Ministry of Home and Cultural Affairs (Department of Disaster Management), Ministry of Works and Human Settlement, Royal University of Bhutan, Ministry of Economic Affairs, Ministry of Health. Other agencies include national CSOs and NGOs such as the [Royal Society for Protection of Nature](#), and [TARAYANA Foundation](#). This would include a joint dialogue with the NEC, the GNHC and other relevant institutions working on SDGs, and identifying common entry points for collaboration.

OUTCOME 2: TECHNICAL CAPACITY ENHANCED FOR THE GENERATION OF CLIMATE SCENARIOS AND IMPACT ASSESSMENT

This outcome will build necessary foundations to support an iterative and dynamic NAP process. A disjointed information and knowledge database, leads to an incomplete picture of climate change or adaptation at a national level in Bhutan (Barrier 3).

2.1. Assessment of gaps and needs in the data and information requirements for adaptation planning and scenarios prepared.

Firstly, this will include a *stocktaking of existing information on climate change risks, impacts of climate change on sectors, and scenario models at required scale*, to get a sense of the existing basis of climate risk. The studies mentioned in the baseline are scattered, and not at the level or quality required. Secondly, the project will *compile, synthesize and downscale existing data and information on global, regional, and existing climate scenarios and projections for Bhutan and its twenty Dzongkhags*. It is essential to get downscaled Dzongkhag level scenarios. The third step will be to *prepare socio-economic scenarios that include macroeconomic modelling at the national and sub-national level for Bhutan to inform V&A and CC risk assessments*.

The focus areas of the stocktaking under this proposed project will be water resources, and 3-4 other climate sensitive sectors as pertinent (energy, infrastructure, agriculture, health, forest, biodiversity, or glaciers). The corresponding activity in the Country Work Programme through the Readiness project, will focus on sectors which remain uncovered by this project, and potentially on mitigation-related issues.

Next, it will be essential to *identify and adapt appropriate climate impact modelling tools and conduct climate risk and impact assessment of key sectors at national level using top down models*. There are several tools available for impact assessment of sectors as well as for VNA. Bottom up approaches are being carried out in other initiatives such TNC, LoCAL, PVA GCCA and the findings of which will be interfaced with the top down models. The idea is to identify or develop the ideal one for Bhutan which will need be modified as and when new tools become available. Initially, through the Second National Communication, Bhutan has used DSSAT (simulating agricultural crop growth), Holdridge life zone eco system mapping, WEAP (Water Evaluation And Planning System), Customized GIS model, etc. These tools will be customised in combination with bottom up tools to conduct targeted assessments on: traditional and indigenous knowledge, vulnerable communities, and vulnerable ecosystems. This activity will conduct targeted assessments on (1) Traditional and indigenous knowledge; (2) Vulnerable communities; (3) Vulnerable ecosystems.¹⁵

Gender and climate change overall assessment as well as more detailed assessment in up-to two sectors will be undertaken in technical collaboration with the NDCs and Gender programme under the LECB second phase and is costed under that programme.

2.2 Capacity across research institutions, scientific community, and universities enhanced.

Scientific knowledge which is not produced locally, and not scaled at all appropriate levels, is a hindrance for informed decision making. To address the third barrier, the following set of activities will be implemented:

- *Forge partnerships with international, national and sub-national training institutions, research institutes and universities for peer to peer learning and knowledge transfer.* This will be achieved through consultation meetings with universities and research departments and the scoping of joint areas of cooperation and research capacities. This could include the set up of regional research conferences, faculty exchanges, research grants for PhD students, and fellowships for post-docs.
- *Design and implement a training programme in partnership with international and regional scientific institutions to enhance the capacity of national scientific and technical communities on scenario development, impact modelling, and targeted assessments,* based on the findings of the capacity and skills assessment from 2.1.1 including both classroom and on-the-job training for three institutions: RUB, UWICE and Royal Thimphu College. This activity will work with all institutions related to adaptation namely, the National Centre for Hydrology and Metrology, various institutions within the Royal University of Bhutan, Renewable Natural Resources Research and Development Centres, Ugyen Wangchuck Institute for Conservation and Environmental Research, CSO research institution, Khesar Gyalpo University of Medical Sciences of Bhutan, which has mandate to conduct research in agriculture, health, civil engineering, geology, hydro-met, technologies, etc. This activity will be achieved through the design of a comprehensive curriculum, the training of trainers, and the development of a participants' manual. This training will include gender components developed in relation to all the topics in the curriculum.
- Based on the above stocktaking exercise from 2.1, *develop a strategy and roadmap for climate research to outline the required information requirements including scientific observation to support adaptation planning in collaboration with a national network of research institutions.* A strategy and roadmap will be developed to continue building on the progress of the climate research conducted so far.

OUTCOME 3: VULNERABILITY ASSESSMENTS UNDERTAKEN AND ADAPTATION OPTIONS PRIORITISED.

This outcome will help address the barrier of the lack of sector specific adaptation information, especially the water sector which is particularly vulnerable, through the following outputs:

3.1. Climate vulnerabilities assessed, and adaptation options identified across all sectors identified.

The first activity will be to *build on the second national communication findings, undertake vulnerability assessments of 3-4 key sectors and appraise adaptation interventions*. Sectors to be considered include infrastructure, energy, agriculture, health, forest, biodiversity and glaciers with timelines for implementation and appropriate consideration or urban and rural considerations, delivering sector-wise vulnerability assessment reports. This will be followed by *providing training for sector planners and decision-makers through specialised trainings on vulnerability assessment through Training Curriculum developed in partnership with regional institutions/think tanks*.

3.2. Parallel to 3.1, climate vulnerabilities assessed and adaptation options identified for water sector.

Water resources lack the appropriate strategy for CCA. To address this, the following set of activities will be conducted:

- *Undertake a detailed national impact assessment of climate change on water resources and implications for water as a key factor for drinking, sanitation, energy and food.*

¹⁵ Gender assessments will be conducted in parallel as part of NDC projects.

- *Prepare an assessment of potential climate change impacts on the urban water supply, sanitation and storm water system for four major urban centres (Thimphu, Phuentsholing, Gelephu, Samdrupjongkhar) Deliverable: Report on impacts of climate change on 4 urban centres.*
- *Identify adaptation options in the water sector and water-dependent sectors – taking into account cross-sectoral issues such as the nexus between water, energy and food. Adaptation options to be surveyed include both eco-system based adaptation and physical infrastructure and potential for PPP.*
- *Prepare a set of project ideas with 1-2 detailed project/programme concepts based on prioritised adaptation options to be submitted to climate funds such as GCF.*

3.3. Screening tools to facilitate the integration of climate change adaptation into development planning applied.

Presently, there is no method to cost CCA projects which is applied in Bhutan. The following activities address this gap:

- *Develop a screening guideline for climate change adaptation to be utilized by relevant line agency planners and budget staff. The screening guideline will focus on distinction between business as usual development projects and additional climate change adaptation interventions and will support development of business cases for adaptation interventions.*
- *Fine tune an adaptation costing framework (including costing and appraisal options), which will extend to climate change adaptation by modifying existing methodology under application for conducting an ongoing biodiversity and climate expenditure review by the BIOFIN project.*
- *Prepare and deliver face-to-face training packages to users for application of the CCA screening guideline and climate expenditure methodology in routine planning tasks such as preparation of sector, national and subnational plans and budgets, with the TWGs.*
- *Develop a mechanism and guideline for synergizing approaches for adaptation planning across different cross cutting issues and thematic areas such as biodiversity, desertification, and water under the MEAs.*

OUTCOME 4: NAP FORMULATED, AND CAPACITY FOR IMPLEMENTATION AND MONITORING ESTABLISHED.

This outcome will build on all previous outcomes, to provide necessary capacity for responsible agencies to use available tools and methodology to review adaptation intervention in key sectors and formulate a NAP.

4.1. National Adaptation Plan formulated and communicated.

This output will include the following set of activities:

- *Constitute a multi-disciplinary team to draft the National Adaptation Plan.*
- *Constitute a peer review group and advisory group for the NAP.*
- *Organise consultation meetings at the national and sub-national level in collaboration with MRGs*
- *Prepare a draft National Adaptation Plan including Implementation and Financing Strategy. This will include undertaking sectoral consultations and peer review by the advisory group. The Financing Strategy will Plan and execute concurrently, similar activities within this proposed project such as Activity 3.3.3 on developing the adaptation costing framework, and Activity 3.2.4 on developing project ideas to be submitted to climate funds such as GCF. The financing strategy will be developed keeping in mind domestic and international sources of funding, as well as other related bilateral sources. Once the project is approved, an advisory group will be constituted with members from GNHC, NEC, MoHCA, MoF, MoWHS and MoAF. This advisory group will enable the focus of this activity to reach its target audience i.e., ministries that will implement the NAP (NEC & GNHC), local government, and financing agencies (such as the Ministry of Finance and development donors).*
- *Final draft of the National Adaptation Plan will be reviewed and approved by the Climate Change Coordination Committee (C4) and National Climate Change Committee (NCCC). The final NAP will also inform and serve as the adaptation communication under the Paris Agreement.*

4.2. Strategy for NAP implementation developed.

- *Develop a medium-term National Adaptation Plan Implementation Strategy as part of the NAP document. This will also inform the National Key Result Area 6 of the upcoming 12th FYP (2018-2023) viz. Carbon Neutral, Climate and Disaster Resilient Development.*

4.3 Outreach on the NAP process and report on progress and effectiveness developed.

This output is to ensure that all relevant and concerned parties are aware of the NAP document and its contents, through the following activities:

- *A NAP National launch workshop will be organized to communicate and disseminate the NAP to all stakeholders (nationally and internationally, including the UNFCCC.)*
- *Annual consultation workshops will be held to share information on the progress in the formulation and implementation of the NAP to gather feedback to improve the process. The participation of representatives of vulnerable groups (women, indigenous groups, people with disabilities, etc) will be ensured by providing support for their attendance.*

4.4 System to report, monitor and review the NAP process established.

This is to ensure a detailed tracking of all CCA projects, along with updates, and resource allocations. This output focuses on taking the NAP into implementation through prioritization of climate change adaptation into national and subnational planning and budgeting. The participatory and results-based M&E framework will be prepared as a part of the NAP to monitor its implementation. The M&E system will be nested in the existing Government Performance Management System (GPMS). Stakeholder consultation will be organized throughout the M&E process. Annual progress reports will be disseminated to share lessons learned, identify gaps, and provide recommendations.

- *Develop a M&E framework for assessing “climate resilience” to inform and assist integration of CC adaptation into development planning (Five Year Plans).*
- *Develop and integrate a M&E programme for the implementation of the NAP process.* This will be done with the help of ((to be identified) national and international institutions (for example: WRI,IIED/ICCAD). Presently, there is a [Government Performance Management System](#), but that system does not include any parameters which are relevant to track CCA activities in country. This activity will aim to include M&E of the implementation of the NAP process. Based on the NAP M&E Framework, it will prepare an “Annual NAP Implementation Progress” in 2018, 2019 and 2020 to include assessment of NAP progress, effectiveness, and any potential gaps with support from relevant experts. The information from provincial level will be collected as per this framework and aggregated to get a national level picture on adaptation. Lastly, an adaptation criteria based system will be developed to report, monitor and review the process to ensure sustainability and iterative integration of adaptation in planning by aligning formulation and review of the NAP with the national development and planning process. Usually, such systems only track expenditure by ministries, but we could try adding criteria for adaptation relevant expenditure, however, this system will ensure they do so for adaptation planning related expenses as well.
- *Based on the NAP M&E Framework, prepare an Annual NAP Implementation Progress in 2018, 2019 and 2020 to include assessment of NAP progress, effectiveness, and any potential gaps with support from relevant experts.*
- *Adaptation criteria to be developed and applied within the government performance management system to report and adaptation relevant investments and expenditure.* This will contribute to aligning formulation and review of the NAP with the national development planning and investment process.

SECTION 4: LOGICAL FRAMEWORK (No more to 2 pages)

Please complete the table below by including proposed outcomes, baseline situations, the targets for implementation period, and the activities to be undertaken, including key outputs or deliverables. Please add rows for additional outcomes as needed. For further guidance on completing the table, please refer to the guidebook "Accessing the GCF Readiness and Preparatory Support Programme", including specific Outcomes to select from.

OUTCOMES	BASELINE	TARGET	ACTIVITIES <i>Please including key outputs or deliverables where applicable</i>
1. Enhanced coordination, learning and knowledge management for an iterative NAP process			
1.1 Protocol and institutional coordination pathways established.	<i>Scattered policies and organizational mandates, impacting CCA in different ways.</i>	<i>Clear and concise pathways of communication, reporting, and organizational structures for CCA based decision making.</i>	<p>1.1.1 Develop guidelines and a protocol to facilitate process for planners and anyone else engaged in the NAP formulation and implementation across institutions at all administrative levels and across sectors to provide guidance on the iterative nature of the process. <u>Deliverable:</u> Recruit the NAP PMU, Assemble NAP-TWG (NTWG) team and board (Y1, Month 1-3); Prepare the NAP project work plan (Y1, Month 2); Prepare a draft of the guidelines and protocol and share with all stakeholders. (Y1, Months 3-4).</p> <p>1.1.2 Develop a stakeholder engagement plan for the NAP process in collaboration with the Climate change coordination committee (C4), drawing upon stakeholder consultations already undertaken during the launch by the Prime Minister, Royal Government of Bhutan (RGoB) in March 2016, and the consultations conducted during the activities of the Readiness NDA¹⁶. <u>Deliverable:</u> Stakeholder mapping and engagement plan developed; Workshop with stakeholders to raise awareness, present NAP project workplan, present draft guidelines and protocol, and elicit feedback. (Y1, Months 4 - 8); Seek endorsement of guidelines through C4.</p>
1.2 Learning and understanding for climate risk informed planning of decision makers improved	<i>Unclear understanding of skills necessary for CCA policy</i>	<i>A cadre of trained staff in C4 & NEC who can effectively advance the NAP process.</i>	<p>1.2.1 Prepare a capacity and skills assessment of institutions at the policy, organizational and operational level that are relevant to the NAP process in generating climate information, risk and vulnerability assessments and adaptation analyses and effective knowledge management. <u>Deliverable:</u> A report on the existing capacities and skills, and a gap analysis (Y1, Months 4 – 8)</p> <p>1.2.2 Prepare a strategy to address and strengthen/implement the capacity and skills of institutions for generating relevant information in supporting the NAP process. This will be undertaken by upgrading</p>

¹⁶ Activity 1.2 "1.2. Supporting ongoing engagement of stakeholders at national and sub-national level" in the Readiness Proposal, "Strengthening the Capacity of NDA to access resources from the Green Climate Fund"

	<p><i>decision making.</i></p> <p><i>Government and official staff not trained in scientific and technical skills for CCA decision making.</i></p>	<p><i>Opportunities to improve capacities within governmental organizations through engaging similar decision makers in other countries with similar contexts.</i></p>	<p>the basic capacity development plan for climate change adaptation developed under Bhutan’s NAPA II Project.</p> <p><u>Deliverable:</u> Strategy (clearly defined) with recommendations which the NEC & C4 can incorporate to address the gaps identified in 1.2.1. (Y1, Months 9-10)</p> <p>1.2.3 Undertake annual peer to peer exchange and Peer-to Peer Technical Trainings internationally, and within the broader Asia-Pacific region, to learn and share lessons on adaptation planning through the following:</p> <ul style="list-style-type: none"> - Participation at Regional and Global NAP Expo(s) and at Regional Adaptation Forum(s) (At least 4 Events over Y1,Y2,Y3,Y4) - Peer-to Peer Technical Trainings on policies, vulnerability assessments, and integration of CCA in planning and budgeting (3 trainings – 1 on each topic) <p><u>Deliverable:</u> A report on lessons learned and recommendations for Bhutan from each forum/expo/training (Y1, Y2, Y3, Y4 - Month 10);</p> <p>1.2.4 Deliver modules within the training programme of the Royal Institute of Management, Bhutan to target both entry level and civil servants at all levels on climate change adaptation and development planning. Collaborate with other national training units/organisations to deliver training modules and collaborate with potential capacity building initiatives under the Paris Capacity building initiative.</p> <p><u>Deliverable:</u> Training Modules developed; Training of Trainers conducted; Pilot class applications formulated and rolled out (Y2, Months 13-18)</p>
<p>1.3 Knowledge management systems to strengthen climate responsive planning.</p>	<p><i>No comprehensive list of all adaptation related actions in country.</i></p> <p><i>Activities in parallel on similar themes with organization</i></p>	<p><i>A “one stop shop” for all CCA efforts for Bhutan.</i></p> <p><i>Complementary initiatives with organizations working to</i></p>	<p>1.3.1 Develop a protocol for management of data and information for cc adaptation (data production, collection, processing, storage and communication by harmonizing/standardizing indicators).</p> <p><u>Deliverable:</u> Protocol Manual; Workshop with relevant staff members (Y1, Month 10-12)</p> <p>1.3.2 Establish an adaptation platform for Information and knowledge management to support climate responsive planning and the NAP process. This will be based on the data and knowledge management protocol and will include data storage and dissemination and integration with other existing environmental and socio-economic information systems.</p> <p><u>Deliverable:</u> Website or software developed as adaptation platform (Y2, Months 13 – 36)</p> <p>1.3.3 Support access to climate change information for sectors and stakeholders in partnerships with other institutions and programmes that also utilize climate information by strengthening their capacity in comprehending and using the available climate information.</p>

	<i>s working on SDGs.</i>	<i>incorporate SDGs.</i>	<p><u>Deliverable:</u> Training Workshops and hardware and software components to enable access to the information (Y2, Month 22)</p> <p>1.3.4 Undertake structured dialogue with institutions working on localising SDGs to ensure that climate change risks for relevant SDGs goals and targets are included in the NAP stocktaking exercise.</p> <p><u>Deliverable:</u> Joint dialogue with NEC and GNHC and other relevant institutions working on SDGs conducted, feedback on adaptation planning stocktaking report elicited; At least two to three entry points identified to work on with those orgs/ report. (Y1, Month 11-12)</p>
2	Technical capacity enhanced for the generation of climate scenarios and impact assessment		
2.1	Assessment of gaps and needs in the data and information requirements for adaptation planning done and scenarios prepared	<i>Disjointed information and knowledge database, the collective knowledge is not creating a complete picture of climate change or adaptation at a national level in Bhutan.</i>	<i>Coherent knowledge base on CCA at a national level, with clear gaps identified, and methods to close them.</i>
			<p>2.1.1 Conduct a stocktaking of existing information and data gaps on climate change risks, impacts of climate change on sectors, and existing scenarios available.</p> <p><u>Deliverable:</u> Stocktaking report on climate information for adaptation planning completed (Q4, Y1: Months 10-12)</p> <p>2.1.2 Compile and synthesize existing global, regional, and existing climate scenarios and projections for Bhutan and its twenty Dzongkhags.</p> <p><u>Deliverable:</u> A suite of downscaled climate scenarios prepared covering national and dzongkhags. (Y1, Months 12-18)</p> <p>2.1.3 Prepare socio-economic scenarios that include macroeconomic modelling at the national and sub-national level for Bhutan to inform V&A and CC risk assessment.</p> <p><u>Deliverable:</u> Report covering socio economic scenarios and vision document (Y2, Months 13-16)</p> <p>2.1.4 Identify and adapt appropriate climate impact modelling tools and conduct climate risk and impact assessment of key sectors at national level using a combination of top-down models and bottom-up participatory tools. Conduct targeted assessments on:</p> <ul style="list-style-type: none"> (i) Traditional and indigenous knowledge (ii) Vulnerable communities (iii) Vulnerable ecosystems <p>Gender assessments will be conducted in parallel as part of NDC Implementation Support programme.</p> <p><u>Deliverable:</u> Climate impact modeling tools adapted/developed and 3 Reports on Traditional and indigenous knowledge, Vulnerable communities, and Vulnerable ecosystems. (Q1, Y2: Months 13-15)</p>

<p>2.2 Capacity across research institutions, scientific community, and universities enhanced.</p>	<p><i>Scientific CC knowledge not produced locally, and not scaled at all appropriate levels.</i></p>	<p><i>Local knowledge networks which are proficient in producing localised, and Bhutan context specific CC information.</i></p>	<p>2.2.1 Forge partnerships with international, national and sub-national training institutions, research institutes and universities for peer to peer learning and knowledge transfer. <u>Deliverable:</u> Consultation meetings with universities and research departments completed; Scoping of joint areas of cooperation, and research capacities; At least 2 MoUs signed. (Y2, Months 16-18)</p> <p>2.2.2 Design and implement a training programme in partnership with international and regional scientific institutions to enhance the capacity of national scientific and technical communities, on scenario development, impact modelling and targeted assessments incorporating gender components and including both classroom and on-the-job training for three institutions: RUB, UWICE and Royal Thimphu College (This activity is complementary to 2.1.1 - 2.1.4) <u>Deliverable:</u> Curriculum; Training of Trainers; Participants Manual (Y2, Months 19 – 24)</p> <p>2.2.3 Develop a strategy and roadmap for climate research to outline the required information requirements including scientific observation to support adaptation planning in collaboration with a national network of research institutions. <u>Deliverable:</u> Strategy and roadmap developed. (Y2, Month 22)</p>
<p>3 Vulnerability assessments undertaken and adaptation options appraised and prioritised</p>			
<p>3.1 Climate vulnerabilities assessed, and adaptation options identified across all sectors identified.</p>	<p><i>No sector specific adaptation information.</i></p>	<p><i>Sector specific CCA options exist.</i></p>	<p>3.1.1 Building on the second national communication findings, undertake vulnerability assessments of 3-4 key sectors and appraise adaptation interventions. Sectors/issues to be considered include infrastructure, energy, agriculture, health, forest, biodiversity and glaciers with timelines for implementation and appropriate consideration or urban and rural considerations. <u>Deliverable:</u> Sector-wise vulnerability assessment reports (Y3, Months 28 – 33)</p> <p>3.1.2 Provide training for sector planners and decision-makers through specialised trainings on vulnerability assessment <u>Deliverable:</u> Training Curriculum developed in partnership with regional institutions/think tanks (Y1, Q2, Month 10; Training of Trainers conducted (Y2, Month 13);</p>
<p>3.2 Parallel to 3.1, climate vulnerabilities assessed and adaptation options identified for water sector.</p>	<p><i>Water resources lacking the appropriate</i></p>	<p><i>Options exist for tackling CCA in the water sector.</i></p>	<p>3.2.1 Undertake a detailed national impact assessment of climate change on water resources and implications for water as a key factor for drinking, sanitation, energy and food. <u>Deliverable:</u> Report on projections of water availability under climate change and expected impact on water resources (Q4, Y3)</p>

	<p><i>strategy for CCA.</i></p>		<p>3.2.2 Prepare an assessment of potential climate change impacts on the urban water supply, sanitation and storm water system for four major urban centres (Thimphu, Phuentsholing, Gelephu, Samdrupjongkhar) <u>Deliverable:</u> Report on impacts of climate change on 4 urban centers (Y3, Months 34-36)</p> <p>3.2.3 Identify adaptation options in the water sector and water dependent sectors – taking cross-sectoral <u>issues into account and examining</u> the nexus between sectors such as water, energy and food. Adaptation options to be surveyed include both ecosystem based adaptation and physical infrastructure and potential for Public Private Partnership. <u>Deliverable:</u> Report on adaptation options on the water, energy, food and climate nexus.(Y3, Months 31 – 33)</p> <p>3.2.4 Prepare a set of project ideas with 1-2 detailed project/programme concepts based on prioritised adaptation options to be submitted to climate funds such as GCF. <u>Deliverable:</u> 1-2 projects/programmes prepared. (Y2 – Y3, Months 13 – 33)</p>
<p>3.3 Screening tools to facilitate the integration of climate change adaptation into development planning applied.</p>	<p><i>No method to cost CCA projects.</i></p>	<p><i>Formalised set of tools and guidelines to estimate financial costs and implications of CCA projects.</i></p>	<p>3.3.1 Develop a screening guideline for climate change adaptation for utilization by relevant line agency planners and budget staff. The screening guideline will focus on distinction between business as usual development projects and additional climate change adaptation interventions and will support development of business cases for adaptation interventions. <u>Deliverable:</u> Report with guidelines (Q2, Y1: Month 4-6)</p> <p>3.3.2 Prepare and deliver face-to-face training packages to users for application of the CCA screening guideline and climate expenditure methodology in routine planning tasks such as preparation of sector, national and sub-national plans and budgets, and targeted training for NAP-TW <u>Deliverable:</u> Training packages for CCA prepared; Training packages delivered in collaboration with local institutions (Y2: M10 -15)</p> <p>3.3.3 Fine tune an adaptation costing framework (including costing and appraisal options), which will extend to climate change adaptation by modifying existing methodology under application for conducting an ongoing biodiversity and climate expenditure review by the BIOFIN project. <u>Deliverable:</u> Costing framework for the NAP elaborated with estimates (Y2 – 24-28)</p> <p>3.3.4 Develop a mechanism and guideline for synergizing approaches for adaptation planning across different cross cutting issues and thematic areas such as biodiversity, desertification and water under the MEAs.</p>

			<u>Deliverable:</u> Guideline developed for cross sectoral collaboration and synergizing approaches for adaptation planning (Y2- Y3: M28 -32)
4. NAP formulated, and capacity for implementation and monitoring established.			
4.1 National Adaptation Plan formulated and communicated.	<i>No existing NAP draft.</i>	<i>Draft of NAP formulated.</i>	<p>4.1.1 Constitute a multi-disciplinary team to draft the National Adaptation Plan. <u>Deliverable:</u> Terms of Reference drafted for the team. Members formally nominated and assigned by the relevant sectoral ministries. Writers recruited to support the team and compile the NAP. (Y1, Month 10 - 12)</p> <p>4.1.2 Constitute a peer review group and advisory group. <u>Deliverable:</u> Selection criteria developed for team members; Terms of Reference drafted; Contracts awarded. (Y1, Month 10 - 12)</p> <p>4.1.3 Organise consultation meetings at the national and sub-national level in collaboration with MRGs <u>Deliverable:</u> Report formulated (Y2, Month 20)</p> <p>4.1.4 Prepare a draft National Adaptation Plan including Implementation and Financing Strategy. Undertake sectoral consultations and peer review by the advisory group. <u>Deliverable:</u> Draft of a NAP. (Y3, Months 25 – 27)</p> <p>4.1.5 Final draft of the National Adaptation Plan will be reviewed and approved by the Climate Change Coordination Committee (C4) and National Climate Change Committee (NCCC). The final NAP will also inform and serve the adaptation communication under the Paris Agreement. <u>Deliverable:</u> A NAP document finalized . (Y3, Month 36)</p>
4.2 Strategy for NAP implementation developed.	<i>NAP's implementation strategy not created.</i>	<i>NAP's implementation strategy created.</i>	<p>4.2.1 Develop a medium-term National Adaptation Plan Implementation Strategy as part of the NAP document. This will also inform the National Key Result Area 6 of the upcoming 12th FYP (2018-2023) viz. <i>Carbon Neutral, Climate and Disaster Resilient Development</i>. <u>Deliverable:</u> Report of Implementation Strategy developed (Y4, Months 37 – 39)</p>
4.3 Outreach on the NAP process and report on progress and effectiveness developed.	<i>Relevant agencies and divisions unaware of</i>	<i>All relevant and concerned parties are</i>	<p>4.3.1 A NAP National launch workshop will be organized to communicate and disseminate the NAP to all stakeholders (nationally and internationally, including the UNFCCC.) <u>Deliverable:</u> Workshop organized; NAP Submission to UNFCCC Website. (Y2, Month 40)</p>

	<i>the NAP and its contents.</i>	<i>aware of the NAP and its contents.</i>	<p>4.3.2 Annual consultation workshops will be held to share information on the progress in the formulation and implementation of the NAP to gather feedback to improve the process. <u>Deliverable:</u> 4 workshops in Q3 or 4 of each year, since this is annual. (Y2, Month 42)</p>
4.4 System to report, monitor and review the NAP process established.	<i>Limited GPMS system to track progress, but not for CCA specifically.</i>	<i>Detailed tracking of all CCA projects, along with updates, and resource allocations.</i>	<p>4.4.1 Develop a M&E framework for assessing “climate resilience” to inform and assist integration of CC adaptation into development planning (Five Year Plans). <u>Deliverable:</u> M&E framework with and index and set of indicators for Bhutan’s resilience to CC impacts (Y4, Month 40-48)</p> <p>4.4.2 Develop and integrate a monitoring and evaluation (M&E) program for the implementation of the NAP process. <u>Deliverable:</u> M&E protocol for assessing progress, effectiveness and gaps in the NAP process in Bhutan, after the tools in Outcomes 1 & 2 are completed.</p> <p>4.4.3 Based on the NAP M&E Framework, prepare an Annual NAP Implementation Progress in 2018, 2019 and 2020 to include assessment of NAP progress, effectiveness, and any potential gaps with support from relevant experts. <u>Deliverable:</u> Annual NAP Implementation Progress Report (Y4, M44, 45)</p> <p>4.4.4 Adaptation criteria to be developed and applied within the government performance management system to report and adaptation relevant investments and expenditure. This will contribute to aligning formulation and review of the NAP with the national development planning and investment process. <u>Deliverable:</u> Criteria prepared and agreed with Finance Departments and Line ministries, (Y3, M32-48)</p>

SECTION 5: BUDGET, PROCUREMENT, IMPLEMENTATION AND DISBURSEMENT

****(Kindly Note: Please do not fill out this section for now. As this section requires to be filled-in based on the UNDP NAP budget tool which is still forthcoming it will undergo modification once the tool is ready, hence, it should not be left blank for now)*

5.1. Budget Plan

GCF Outcome	Budgetary Categories Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total	Budget Note
OUTCOME 1. Enhanced coordination, learning and knowledge management for an iterative NAP process	Local Consultants	24,000.00	0.00	0.00	0.00	24,000.00	1
	Contractual Services - Individ	4,967.20	4,967.20	4,967.20	4,967.20	19,868.80	2
	International Consultants	20,000.00	0.00	0.00	0.00	20,000.00	3
	Travel	19,400.00	0.00	0.00	0.00	19,400.00	4
	Contractual Services - Companies	0.00	150,000.00	0.00	0.00	150,000.00	5
	Information Technology Equipmnt	8,500.00	8,500.00	8,500.00	8,000.00	33,500.00	6
	Training, Workshops and Confer	56,190.00	210,285.00	48,000.00	18,000.00	332,475.00	7
		133,057.20	373,752.20	61,467.20	30,967.20	599,243.80	
OUTCOME 2: Technical capacity enhanced for the generation of climate scenarios and impact assessment	Local Consultants	57,000.00	99,000.00	0.00	0.00	156,000.00	8
	Contractual Services - Individ	4,967.20	4,967.20	4,967.20	4,967.20	19,868.80	2
	Contractual Services - Companies	260,000.00	117,702.46	0.00	0.00	377,702.46	9
	International Consultants	0.00	54,000.00	0.00	0.00	54,000.00	10
	Travel	11,500.00	1,400.00	0.00	0.00	12,900.00	11
	Training, Workshops and Confer	18,000.00	18,000.00	0.00	0.00	36,000.00	12
		351,467.20	295,069.66	4,967.20	4,967.20	656,471.26	
	Local Consultants	13,500.00	13,500.00	36,000.00	0.00	63,000.00	13
	International Consultants	0.00	30,000.00	90,000.00	0.00	120,000.00	14



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OUTCOME 3. Vulnerability assessments undertaken and adaptation options prioritised	Contractual Services - Individ	4,967.20	4,967.20	4,967.20	4,967.20	19,868.80	2
	Contractual Services - Companies	0.00	0.00	721,000.00	0.00	721,000.00	15
	Travel	5,000.00	7,500.00	7,500.00	5,000.00	25,000.00	16
	Audio Visual & Print Prod Costs	0.00	1,000.00	800.00	800.00	2,600.00	17
	Training, Workshops and Confer	10,080.00	90,120.00	12,600.00	15,330.00	128,130.00	18
	Miscellaneous Expenses	6,433.00	6,433.00	6,433.00	6,433.00	25,732.00	19
		39,980.20	153,520.20	879,300.20	32,530.20	1,105,330.80	
OUTCOME 4: NAP formulated, and capacity for implementation and monitoring established	Contractual Services - Companies	37,500.00	37,500.00	37,500.00	37,500.00	150,000.00	20
	Contractual Services - Individ	4,967.20	4,967.20	4,967.20	4,967.20	19,868.80	2
	International Consultants	0.00	0.00	18,000.00	10,000.00	28,000.00	21
	National Consultants	0.00	0.00	3,000.00	6,000.00	9,000.00	22
	Travel	4,810.00	6,930.00	6,930.00	9,430.00	28,100.00	23
	Audio Visual & Print Prod Costs	3,100.00	6,650.00	6,575.00	6,575.00	22,900.00	24
	Training, Workshops and Confer	1,890.00	5,670.00	5,670.00	4,670.00	17,900.00	25
	52,267.20	61,717.20	82,642.20	79,142.20	275,768.80		
Project Management Unit	Contractual Services - Individ	22,883.15	22,883.15	22,883.15	22,883.15	91,532.60	26
	Travel	3,000.00	3,000.00	3,000.00	3,000.00	12,000.00	27
	Information Technology Equipmnt	1,875.00	1,875.00	1,875.00	1,875.00	7,500.00	28
	Supplies	1,250.00	1,250.00	1,250.00	1,250.00	5,000.00	29
	Professional Services	3,000.00	3,000.00	3,000.00	3,000.00	12,000.00	30
	32,008.15	32,008.15	32,008.15	32,008.15	128,032.60		
Total OUTCOMES (1+2+3+4)		576,771.80	884,059.26	1,028,376.80	147,606.80	2,636,814.66	
Total OUTCOMES (1+2+3+4+PM)		608,779.95	916,067.41	1,060,384.95	179,614.95	2,764,847.26	
Delivery Partner Fee (8.5%)		51,746.30	77,865.73	90,132.72	15,267.27	235,012.02	
TOTAL PROJECT		660,526.25	993,933.14	1,150,517.67	194,882.22	2,999,859.00	

Budget notes	
1	National expert for 1.1 (Guidelines, protocol, and stakeholder mapping) @ \$24,000 (\$250 x 96 days) (Y1);
2	80% of Pro rata costs of the Project Manager (NAP Technical Coordinator for technical support @ 24,835.98/year) split across outputs 1-4 and across 4 years
3	Estimated lump sum amount for an International Expert (IC) to conduct the institutional capacity and skills assessments for government departments (sectors) (1.2.1) @ \$20,000 (Y1) for an estimated period of 40 days @ \$500/day.
4	Estimated lump sum for travel costs for international consultants and where relevant, in-country travel costs for consultations and workshops also. Breakdown: \$ 12,600 & \$ 5,400 (for 1.1) in Y1; \$1,400 for 1.1.2 (Y1) = \$ 19,400
5	Institutional contract for regional institute (for example, ICIMOD) for developing knowledge systems (1.3) and providing the V&A tools, including mentoring of national sector experts on V&A through the process of identification of adaptation options, appraisal and prioritization for \$150,000 (Y2).
6	Acquisition of laptops, software licenses, external hard drives, printers and other supporting equipment, as needed - total cost for 4 year is \$ 33,500
7	Estimated lump sum costs to assist in delivery of: (1) Attendance at NAP expo and regional forum for 3 persons each year, all four years. And peer to peer focused study tour training overseas for 15 individuals (5 per year) over the first three years (1.2.3) @ \$162,000, inclusive of airfare, DSA, meeting & training cost (Y1, Y2, Y3, Y4) and printing and venue costs for Y1 - \$8,190; (2) Training programme with RIM @ \$150,000 (Y2), \$12,285 for printing venue etc (Y2).
8	Estimated lump sum costs to hire the following national experts: (1) 1 National expert for the stocktaking (2.1.1) @ \$ 30,000 (300 days @\$100/day) (Y1); (2) National expert (economist) to support preparation for socio-economic scenarios for \$300/day x 180 days = 54,000 (Y1 - Y2); (3) National Expert for impact modelling, downscaling scenarios and assessments of indigenous knowledge, vulnerable communities and ecosystems at \$300 x 140 days = \$42,000 (2.3.3) (Y2); (4) National Consultant on data analysis @ \$30,000 (\$150/day x 200 days) (Y2).
9	Estimated lump sum amounts for: (1) A National Institute/University (grant) to establish scientific training research network for 2.2.1 - \$57,702.46 (Y2); (2) An international institute (versed in climate science, scenario development, and same as capacity assessment in 1.3), to prepare a training programme to enhance the capacity of national scientific and technical communities, on scenario development, impact modelling and targeted assessments incorporating gender components and including both classroom and on-the-job training for three institutions: RUB, UWICE and Royal Thimphu College, determined on a competitive basis for \$120,000 for (Y2) (2.2.2) Institutional contract for \$200,000 to prepare downscaled scenarios and impact modeling (2.1).
10	International expert (economist) to prepare socio-economic scenarios based on climate projections 54,000 (\$600/day x 90 days) (Y2)

11	Travel for national expert for 2.1.1 is \$ 2,100 (21 pax x 100) (Y1) + travel for intl consultant for 2.3.2 is \$ 9,400 (Y1) + travel for 2.3.3 local consultant in Y2 is \$ 1,400
12	local workshops for 2.3 - \$36,000 (Y1 - Y2) for 35 pax each.
13	Estimated costs of 3 national consultants (210 days at USD 300/day): I) to support the delivering of Output 3 including (3.2) prepare reviews and appraisals of adaptation options in the following sectors: infrastructure and disaster, agriculture, biodiversity and forestry, health, and energy (2 consultants x 60 days x \$300) (Y3) II) \$300/day x 90 days for national consultant to support the face to face training package for senior govt officials on the costing framework (Y1-Y2) \$ 27,000
14	IC (climate finance) for screening guidelines, costing framework, and training package development- 60,000 (100 days x \$600/day) (Y2 and Y3) IC for 3.2.1 to conduct water assessments (100 days * \$600/day)
15	Estimated lump sum cost of hiring a firm to develop methodology for identification of adaptation options, conduct detailed assessment for 3.2.1 and 3.2.2 (Y3) & \$721,000, including 4 urban centers & inventory. This will also include field surveys.
16	Estimated travel costs for international consultants and where relevant, in-country travel costs for associated with consultation and workshop \$20,000 (Y1-Y4) + \$ 5,000 (Y2-Y3) for IC on costing framework
17	Costs associated with the production and distribution of communication mediums (newsletters, brochures, fact sheets, etc.), outreach, lessons learnt and best practice, as well as training knowledge/modules and translation/interpretation - total \$ 2,600 across 4 years
18	Estimated lump sum costs associated with the preparation and organization of workshops for 3.3.1 on screening appraisals, national consultation workshops to review the draft NAP to ensure that relevant stakeholder are involved and consulted. This also includes cost for delivering face to face training in 3.3.3. The costs also include expenses related to material production and printing, venue and supplemental meeting needs and translation/interpretation. In the first year: 2 national workshops and 4 subnational with maximum participants @35 per event. In the second year 2 and subsequent years 2 national and 2 sub national annually, for a total of 20 workshops. 8 national workshops (over 4 years) @ \$3,000 each = \$24,000 12 subnational workshops (over 4 years) @ \$2,200 each = \$26,400 - Venue and other training costs for sector planners @ \$75,000 (Y2) + Y4 printing venue etc. @ \$2,730.
19	Estimated equivalent to 1% of the total project budget. The contingency budget must be used for any unforeseen programme (output level) cost, such as FX gain and loss, courier service etc., which is unrelated to implementation/service fee. Any use of contingency must be reported to and agreed by the GCF Secretariat in writing (email is sufficient) in advance with sufficient justifications.
20	Estimate lump sum amount of \$100,000 for International institutes (for example, WRI,IIED/ICCAD) and \$50,000 for National Institute (to be identified, relevant to M&E) split across 4 years for: (1) developing an M&E framework, index and set of indicators for Bhutan's resilience to CC impacts



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	(2) M&E protocol for assessing progress, effectiveness and gaps in the NAP process in Bhutan (3) Annual NAP Implementation Progress Report.
21	\$10,000 is estimated lump sum costs of an international consultant with expertise in project evaluation to prepare Project Terminal Evaluation Report + a consultant for drafting team for 4.1 (compiling the NAP) for 30 days @ \$600/day (Y3)
22	National consultant for the draft of NAP (30 days @ \$300/day) (Y3 and Y4)
23	Estimated travel costs for international consultants and where relevant, in-country travel costs associated with consultation and workshop. Estimated cost per mission/trip at approx. \$3,000 each. Y1 - one trip with consultation workshop in Thimphu Y2 and Y3 - one visit plus in country field mission and consultation each year Y4 - two missions and in country consultations
24	Costs associated with the production and distribution of communication mediums (newsletters, brochures, fact sheets, etc.), outreach, lessons learnt and best practice, as well as training knowledge/modules and translation/interpretation. \$22,900 split across 4 years
25	Estimated costs associated with the preparation of consultation workshops to review progress of project implementation as well as NAP process. The costs also include expenses related to material production and printing, venue and supplemental meeting needs and translation/interpretation. 35 participants max. per workshop (estimated lump sum cost). Four workshops per year, approximately.
26	These are costs for the PMU which include pro-rated costs for project personnel: 20% of the Project Manager (\$24,835.98/year) who will also work as the NAP Technical Coordinator and 100% of 1 Project Associate (\$17,915.97/year) - across 4 years
27	Travel for project management staff to support project implementation and monitoring @ \$3,000/year
28	Acquisition of laptops, software licenses, external hard drives, printers and other supporting equipment, as needed.
29	Office supplies to support necessary management functions and for the printing of documents for various project management activities, communication, monitoring and reporting documents and other informative documents for dissemination to key stakeholders, as appropriate
30	The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on DIM implemented projects. Additional audit may be undertaken at the request of the GCF. External audit firm will be hired competitively.



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5.2. Procurement Plan					
<p><i>For goods, services, and consultancies to be procured, please list the items, descriptions in relation to the activities in section 2, estimated cost, procurement method, relevant threshold, and the estimated dates. Please include the procurement plan for at least the first tranche of disbursement requested below. Also, please feel free to replicate this table on Excel spreadsheet if needed.</i></p>					
ITEM	ITEM DESCRIPTION	ESTIMATED COST (US \$)	PROCUREMENT METHOD	ESTIMATED START DATE	PROJECTED CONTRACTING DATE
Goods and Non-consulting Services					
Service Contract - Individual	Project Manager (NAP Technical Coordinator providing technical support)	99,343.92	Test & interview - Competitive Sourcing	Y1/Q1	Y1/Q1
Service Contract - Individual	Project Associate	71,663.88	Test & interview - Competitive Sourcing	Y1/Q1	Y1/Q1
Contractual Services - Company	Institutional Contract - Capacity and Skills Assessments on Climate Science	120,000.00	Local Advertisement - Competitive Sourcing	Y1/Q2	Y1/Q2
				Y2/Q2	Y2/Q2
Contractual Services - Company	Institutional contract for downscale scenarios and impact modeling	200,000.00	Local Advertisement - Competitive Sourcing	Y1/Q4	Y1/Q4
				Y2/Q1	Y2/Q1
Trainings, Workshops and Conferences	Venue and associated cost related to Peer-to-Peer training for C4 committee and participation to the NAP Expo and regional forum	170,190.00	Desk Review - Competitive Sourcing	Y1/Q2	Y1/Q2
Trainings, Workshops and Conferences	Venue and associated cost related to Training programme with RUB	162,285.00	Desk Review - Competitive Sourcing	Y2/Q2	Y2/Q2
Trainings, Workshops and Conferences	Venue and associated cost related to Sector Planners Training	128,130.00	Desk Review - Competitive Sourcing	Y2/Q2	Y2/Q2



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Contractual Services - Company	Institutional Contract - National Institute/University for Research Network	57,702.46	Local Advertisement	Y2/Q2	Y2/Q2
Contractual Services - Company	Institutional Contract - Regional Institute - Developing Knowledge Systems, V&A tools and monitoring	150,000.00	Local Advertisement - Request for proposal	Y2/Q2	Y2/Q2
Information Technology Equipment	Laptops, software licenses, external hard drives, printers and other supporting equipment	41,000.00	Desk Review - Competitive Sourcing	Y1/Q1	Y1/Q1
Trainings, Workshops and Conferences	Venue and associated cost related to workshops on Current climate and future climate change, and socio-economic scenarios	36,000.00	Desk Review - Competitive Sourcing	Y2/Q1	Y2/Q1
Contractual Services - Company	Firm to conduct detailed assessment (4 urban centres)	721,000.00	Local Advertisement - Request for proposal	Y3/Q1	Y3/Q1
Audio Visual & Printing Cost	Production and distribution of communication mediums	25,500.00	Desk Review - Competitive Sourcing	Y1/Q2	Y1/Q2
				Y2/Q1	Y2/Q1
				Y3/Q1	Y3/Q1
				Y4/Q1	Y4/Q1
Contractual Services - Company	International Institutes for developing the M&E framework.	100,000.00	Local Advertisement	Y1/Q2	Y1/Q2
				Y2/Q1	Y2/Q1
				Y3/Q1	Y3/Q1
				Y4/Q1	Y4/Q1
Contractual Services - Company	National institutes for for developing an M&E framework, index and set of indicators for Bhutan's resilience to CC impacts.	50,000.00	Local Advertisement	Y1/Q2	Y1/Q2
				Y2/Q1	Y2/Q1
				Y3/Q1	Y3/Q1
				Y4/Q1	Y4/Q1
Trainings, Workshops and Conferences		17,900.00	Desk Review - Competitive Sourcing	Y1/Q3	Y1/Q3



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	Consultation workshops to review progress of project implementation as well as NAP process			Y2/Q3	Y2/Q3
				Y3/Q3	Y3/Q3
				Y4/Q3	Y4/Q3
Supplies	Office supplies	5,000.00	Micro purchasing	Y1/Q1	Y1/Q1
				Y2/Q1	Y2/Q1
				Y3/Q1	Y3/Q1
				Y4/Q1	Y4/Q1
Contractual Services - Company	A firm to conduct audit	12,000.00	Local Advertisement	Y3/Q3	Y3/Q3
SUB-TOTAL (US \$)		2,167,715.26			
Consultancy Services					
National Consultant	National Expert on Policy and Mandate for NAP process	24,000.00	Desk Review - Competitive Sourcing	Y1/Q1	Y1/Q1
National Consultant	National Consultant for draft of NAP	9,000.00	Desk Review - Competitive Sourcing	Y1/Q1	Y1/Q1
International Consultant	Expert on Institutional Capacity building and skills assessment for governmental departments	20,000.00	Desk Review - Competitive Sourcing	Y1/Q2	Y1/Q2
National Consultant	National Expert on Stocktaking	30,000.00	Desk Review - Competitive Sourcing	Y1/Q4	Y1/Q4
National Consultant	Climate Economist	54,000.00	Desk Review - Competitive Sourcing	Y1/Q4	Y1/Q4
National Consultant	National Expert for impact modelling, downscaling scenarios and assessments of indigenous knowledge, vulnerable communities and ecosystems	42,000.00	Desk Review - Competitive Sourcing	Y2/Q1	Y2/Q1
National Consultant	Data Analysis Consultant	30,000.00	Desk Review - Competitive Sourcing	Y2/Q1	Y2/Q1



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International Consultant	Expert in Socio-economic scenarios (Climate Projections)	54,000.00	Desk Review - Competitive Sourcing	Y2/Q2	Y2/Q2
National Consultant	Two National Sectorial Expert	36,000.00	Desk Review - Competitive Sourcing	Y3/Q1	Y3/Q1
International Consultant	Expert in Formulation and Communication of the National Adaptation Plan (Sectorial)	18,000.00	Desk Review - Competitive Sourcing	Y3/Q1	Y3/Q1
National Consultant	Expert in CCA Integration, costing framework, and NAP Implementation and Monitoring	27,000.00	Desk Review - Competitive Sourcing	Y1/Q4	Y1/Q4
International Consultant	Water and Adaptation Consultant	60,000.00	Desk Review - Competitive Sourcing	Y3/Q1	Y3/Q1
International Consultant	Costing Framework for Adaptation Consultant	60,000.00	Desk Review - Competitive Sourcing	Y2/Q3	Y2/Q3
				Y3/Q2	Y3/Q2
International Consultant	Expert in Project Evaluation	10,000.00	Desk Review - Competitive Sourcing	Y4/Q4	Y4/Q4
SUB-TOTAL (US \$)		474,000.00			
TOTAL COST (US \$)			2,641,715.26		



5.3. Disbursement schedule

Specify the proposed schedule for requesting disbursements from the GCF, including amounts and periodicity. For amounts requested, keep to multiples of USD 5,000, and for periodicity, specify whether it's quarterly, bi-annually or annually only.

Disbursement requests will be managed at portfolio level by UNDP-GEF MPSU in NY, as agreed in the "Framework Readiness and Preparatory Support Grant Agreement" between GCF and UNDP. Under Clause 4 of said Framework Agreement, "the Delivery Partner shall be entitled to submit two Requests for Disbursement each year. Each such Request for Disbursement must be submitted to the Fund within 30 days of receipt by the Fund of the Portfolio Report referred to in Section 9.02

5.4. Additional information

This box provides an opportunity to include further explanations related to the budget, procurement plan and disbursement schedule, including any details on the assumptions to justify costs presented in the budget.



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4.4 System to report, monitor and review the NAP process established.																	
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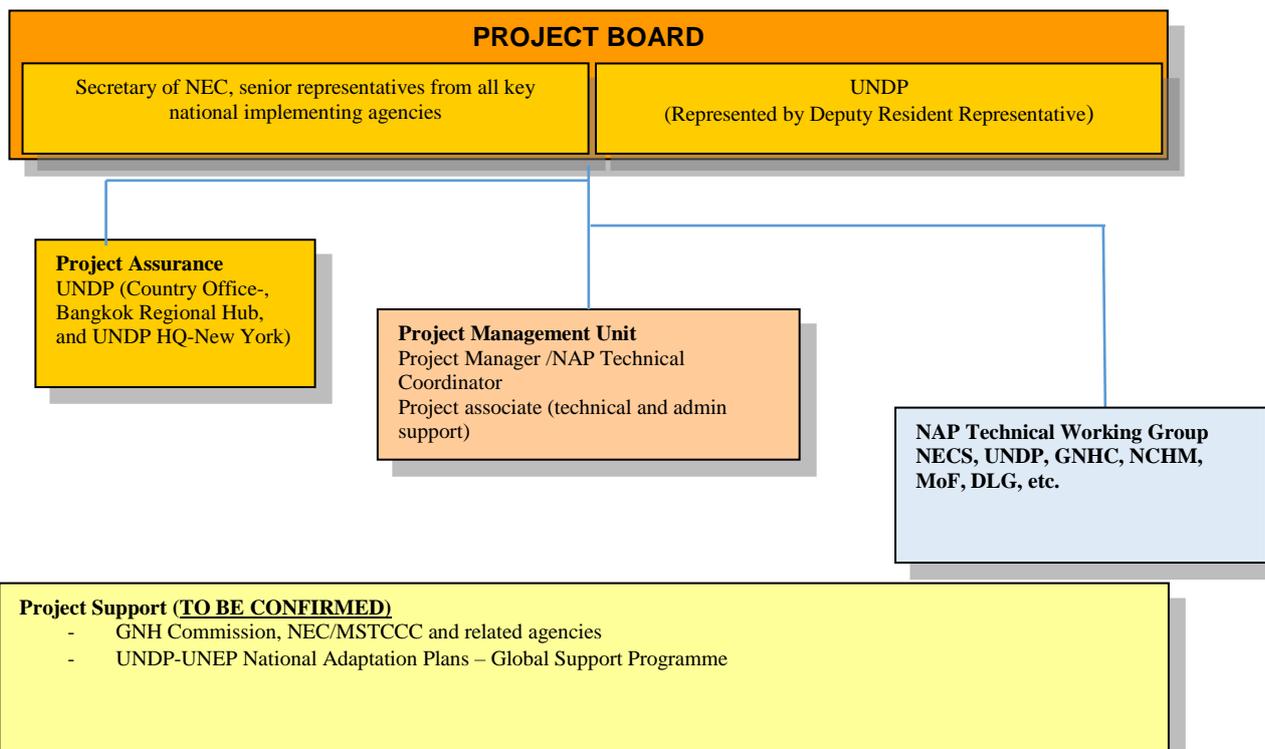
SECTION 6: IMPLEMENTATION ARRANGEMENTS AND OTHER INFORMATION

6.1 Please attach an “implementation map” or describe how funds will be managed by the NDA/FP or delivery partner

If the entity implementing the readiness support is not an accredited entity of the GCF, please complete the [Financial Management Capacity Assessment \(FMCA\)](#) questionnaire and submit it with this proposal.

The project will be implemented following UNDP’s Direct Implementation Modality (DIM), according to the Readiness and Preparatory Support Grant Framework Agreement between the GCF and UNDP.

The Project Management Unit will carry out project implementation. The management arrangements for this project are summarized in the chart below:



UNDP provides a three-tier supervision, oversight and quality assurance role – funded by the agency fee – involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. This project oversight and quality assurance role is covered by the delivery partner fee provided by the GCF.

The project will be implemented over a period of four years. A **Project Board (PB)** will be established to provide high-level guidance and oversight to the project. The PB will be co-chaired by the Secretary of the NECS (Government) and UNDP and made up of senior representatives from the GNHC, DLG, NCHM and other key national implementing agencies. The PB will be responsible for high-level decisions and policy guidance required for the implementation of the project, including recommendations and approval of project plans, budget and revisions. The PB’s decisions are to be made in accordance to standards that ensure efficiency, cost-effectiveness, transparency, effective institutional coordination, and harmony with the overall development policies and priorities of the Royal Government of Bhutan, UNDP and their development partners.

The **Project Management Unit (PMU)** will be housed at UNDP Bhutan. One project personnel member will be placed within the NEC, to ensure seamless communication, coordination, planning and technical inputs.

The PMU will be responsible for the overall coordination with the various national agencies for the delivery of project outputs in a timely and effective manner. It will facilitate project-related planning activities such as preparation of annual work plans and be responsible for overall project monitoring and reporting. As part of the PMU, a **project manager** will be recruited according to UNDP policies to ensure best value for money. The Project Manager will be responsible for the day-to-day management of the project on behalf of the Implementing Partner, for facilitating the preparation of the annual work plans, approved by the PB and reviewed by UNDP, in consultation with relevant stakeholders, as well as for ensuring that the project produces the results (outputs) specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The PMU will appraise all decisions to the NECS and UNDP and all decisions will be made jointly by the two agencies. The Project Manager function will end when the final project terminal evaluation report and other documentation required by the GCF and UNDP has been completed and submitted to UNDP.

The PMU will be made up of the following positions:

- **Technical coordinator/Project Manager** for coordination, monitoring and reporting of project activities
- **Project Associate** for project administration and day-to-day support to the project manager for the full duration of the project;

A NAP Technical Working Group (NTWG) will be created comprising relevant members from the UNDP, NECS, GNHC and other stakeholders of the project. The NTWG will be the technical team who will oversee the drafting of the NAP document. The team will be engaged to provide data and information, identify and appraise adaptation options for the various sectors and prepare the NAP document.

Project technical support will be provided by the NEC, in collaboration with the GNH Commission, C4 and related agencies and including all key stakeholders including civil society organisations. In addition, technical assistance will be provided upon demand by the UNDP's National Adaptation Plan - Global Support Programme, in partnership with UNEP, by extending the support provided already, by delivering additional technical support to overcome capacity gaps, in line with the objectives of the programme.

Local stakeholders and community members also have a key role in the implementation and monitoring of the project. During the inception phase of the project, UNDP, will consult with all stakeholders, including vulnerable community members, NGOs, civil society, women organizations, etc., to facilitate an understanding of the roles, functions, and responsibilities within the Project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Project's Logical Framework (indicators, means of verification, assumptions) will be reviewed and the quarterly and annual plans will be refined engaging the communities from the targeted audience. The stakeholders will also be engaged during the mid-term and final evaluations to assess the progress of the project and enable adaptive project management in response to the needs and priorities of the communities.

6.2 Other relevant information

This box provides an opportunity to include any important information you wish to bring to the attention of the GCF Secretariat, but did not have an opportunity to provide in the sections above.

SECTION 7: ARRANGEMENTS FOR MONITORING, REPORTING AND EVALUATION

Please provide project/programme specific institutional setting and implementation arrangements for monitoring and reporting and evaluation. Please indicate how the interim/mid-term and final evaluations will be organized, including the timing.

The project results will be monitored and reported annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GCF-specific M&E requirements will be undertaken in accordance with relevant GCF policies.

i. M&E oversight and monitoring responsibilities:

NAP Technical Coordinator: The NAP technical coordinator is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. S/he will ensure that all project personnel maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. S/he will inform the Project Board, the UNDP Country Office and the UNDP-GEF Regional Technical Advisor of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The NAP technical coordinator will develop annual work plans to support the efficient implementation of the project. The NAP Technical Coordinator will ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

UNDP: will retain all project records for this project for up to seven years after project financial closure in order to support any ex-post reviews and evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GCF. UNDP is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the Annual Project Report and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. Annual Project Report quality assessment ratings) must be addressed by the NAP technical coordinator. UNDP will initiate and organize key M&E activities

including the Annual Project Report, the independent mid-term review and the independent terminal evaluation. UNDP will also ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.

UNDP Country Office: The UNDP Country Office will support the NAP technical coordinator as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission.

The UNDP Country Office and the project team will support GCF staff (or their designate) during any missions undertaken in the country, and support any ad-hoc checks or ex post evaluations that may be required by the GCF.

UNDP-Global Environmental Finance Unit (UNDP-GEF): Additional M&E and implementation oversight, quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisors and the UNDP-GEF Directorate as outlined in the management arrangement section above.

ii. **Audit:**

The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on DIM implemented projects. Additional audits may be undertaken at the request of the GCF.

iii. **Additional monitoring and reporting requirements:**

Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

- a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
- b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
- d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E;
- e) Identify how project M&E can support national monitoring of SDG indicators as relevant;
- f) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log;
- g) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the audit; and
- h) Plan and schedule Project Board meetings and finalize the first-year annual work plan.

The NAP Technical Coordinator will prepare the inception workshop report no later than one month after the inception workshop. The inception workshop report will be cleared by the UNDP CO and the UNDP-Global Environment Finance Regional Technical Adviser, and will be approved by the Project Board.

Bi-Annual Project Report: The NAP technical coordinator, the UNDP Country Office, and the UNDP-Global Environment Finance Regional Technical Advisor will provide objective inputs to the annual project report covering every six months in the calendar year for each year of project implementation. The NAP Technical Coordinator will ensure that the indicators included in the project results framework are monitored annually in advance so that progress can be included in the report. Any environmental and social risks and related management plans will be monitored regularly, and progress will be included in the report.

The **Bi-Annual Project Report** will be shared with the Project Board. UNDP will coordinate the input of other stakeholders to the report as appropriate. The quality rating of the previous year's reports will be used to inform the preparation of the subsequent report.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin at least three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability.

The NAP Technical Coordinator will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center. As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publicly available in English on the UNDP ERC as well as NAP website to be designed under the project.

Final Report: The project’s final Annual Project Report along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.