

## Section 4: Environmental and Social Safeguards & Gender

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## Section 4: Environmental and Social Safeguards & Gender

Please note that this is section 4 of the six Annual Performance Report (APR) sections. APR will be considered valid only after all the six sections and the additional section on COVID-19 are filled with relevant details.

### 4.1 Implementation of environmental and social safeguards and gender elements

Please provide information on the project or programme on the following: (1) key risks and impacts as identified; (ii) compliance with applicable laws and regulations including FAA conditions and covenants; and (3) progress in the implementation of environmental and social management plans and programs including monitoring activities undertaken during the implementation of the funded activity.

**4.1.1 The information includes description on any changes in the key environmental and social risks and impacts as identified and arising from the implementation including any unanticipated risks and impacts (ex. from changes in laws and regulations) and, based on these if any change in the project's environmental and social risk category. In case of a change in the E&S risk category for the project, please provide an explanation.**

**4.1.2 The information should include status of compliance with applicable laws and regulations of the country as well as the relevant conditions or covenants under the FAA. This can be captured in the table below:**

**Status of compliance with applicable laws and regulations and the conditions and covenants specifically addressing ESS & Gender under FAA**

**Compliance Type**  
Covenant

**Compliance Title & Description**  
 FAA Clause 10.02  
 In addition to clause 18.02 of the AMA, the Accredited Entity covenants that as from the Effective Date of this Agreement it shall:  
 [...]
 (e) Undertake and/or put in place any adequate measures in order to ensure that the management of the environmental and social risks and impacts arising from the Funded Activity complies at all times the recommendations, requirements and procedures set forth in the Environmental and Social Management Framework ("ESMF"), which was provided by the Accredited Entity to the Fund before the Approval Decision and which shall not be amended, abrogated or waived without prior written approval of the Fund;

**Status of compliance**  
 FAA Clause 10.02  
 [...]
 (e) Adequate measures are being undertaken during the implementation of the project. In specific, all ongoing activities have obtained clearances (social/public clearances, Forestry and environment clearances) from relevant national authorities at the local government and central agency. Only surveys, designs, estimates, assessment were completed in 2020. Actual civil works for these two activities will start in 2021

**Compliance Type**  
Covenant

**Compliance Title & Description**  
 (f) Ensure that the GCF Proceeds will not support or finance, directly or indirectly, any activities with potential environmental and social risks that are equivalent to category A pursuant to the Environmental and Social Risks Categories to be conducted as part of the Project;

**Status of compliance**  
 (f) UNDP will continue to ensure that, during the implementation of the project, GCF Proceeds will not support or finance any activities with category A risk.

**Compliance Type**  
Covenant

**Compliance Title & Description**  
 (g) Obtain, or ensure that the Executing Entity shall acquire, all land and rights in respect of land that are required to carry out the Funded Activity and shall promptly furnish to the GCF, upon its request, evidence that such land and rights in respect of the land are available for the purposes of the Funded Activity;

**Status of compliance**  
 (g) The land in which the civil works (new irrigation and roads) for project will be carried out is government owned. In the case that the any private-owned land is used by the project, letters of con-sent and clearances will be collected.

**Compliance Type**  
Covenant

**Compliance Title & Description**  
 (h) Prior to commencing any construction works or activities for the implementation of the Project, the Accredited Entity shall submit the detailed Environmental and Social Management Plan related to the relevant construction works or activities to be executed, in a form and substance satisfactory to the GCF Secretariat;

**Status of compliance**  
 (h) The detailed ESMP for new irrigation schemes and slope stabilization of 3 road sections will be submitted to the GCF Q1-Q2 2021, prior to commencing any related construction works.

**Compliance Type**  
Covenant

<p><b>Compliance Title &amp; Description</b></p> <p>(i) Ensure that the infrastructure works to be implemented as part of the Funded Activity (i) are designed, constructed, operated and decommissioned in accordance with good international industry practices and any other applicable standards, taking into consideration safety risks to third parties or affected communities; and (ii) that the quality of such infrastructure works is in accordance with international best practices; [ . . . ]</p>
<p><b>Status of compliance</b></p> <p>(i) The ESMP provided in the ESMF has been applied for activities. For new irrigation schemes and slope stabilization of 3 road sections, a site specific ESMP will be developed. Discussions in this regard have already commenced. [ . . . ]</p>

<p><b>Compliance Type</b></p> <p>Law / Regulation</p>
<p><b>Compliance Title &amp; Description</b></p> <p>Forest and Nature Conservation Act 1995 National Environmental Protection Act 2007 Land Act of Bhutan 2007 Waste Prevention and Management Act 2009 Road Act of Bhutan 2004 Environmental Assessment Act 2000 Land Pooling and Readjustment Regulation 2018 Regulation on Occupational Health, Safety and Welfare 2012 The Co-operative Act of Bhutan, 2009 Environmentally Friendly Road Construction Field Handbook, 2005 Manual for the Road Sector on Bio-Engineering Techniques for Slope Protection and Stabilization Local Government Act of Bhutan, 2009</p>
<p><b>Status of compliance</b></p> <p>Compliant</p>

4.1.3 Provide a report on the progress made in implementing environmental and social management plans (ESMPs) and frameworks (ESMFs) describing achievements, and specifying details outlined in the tables below.

**Implementation of ESMPs and ESMFs**

**Activities implemented during the reporting period, including monitoring**

1. Several round of consultations about Environmental and Social Safeguards carried out with responsible parties of the project at the central and district level – District Governors, Senior Management of the Responsible Ministries and Agencies, Planning Officers, Agriculture Officers, Engineers etc.

**Outputs during the reporting period**

1. Environmental and social safeguards are included in the contractual document of the irrigation projects

**Key environmental, social and gender issues, risks and impacts addressed during implementation**

1.2. Secured unanimous social and public clearances for the 8 irrigation schemes

**Any pending key environmental, social and gender issues needing accredited entity's actions and GCF attention**

none

**Activities implemented during the reporting period, including monitoring**

2. field investigations by relevant agencies

**Outputs during the reporting period**

2.1. Secured forestry and environmental clearance for irrigation schemes

**Key environmental, social and gender issues, risks and impacts addressed during implementation**

2.2. Environment and forestry impact was assessed and clearance accorded to project districts

**Any pending key environmental, social and gender issues needing accredited entity's actions and GCF attention**

none

**4.1.4 Provide information on how the GCF Independent Redress Mechanism, as well as the AE's GRM (e.g. contact details, accessibility, and basic procedures of such mechanisms), is brought to the attention of executing entities, people, and beneficiaries in the project target area and the public in accordance with the relevant ESMS/ESIA.**

See below.

**4.1.5 Include a description of the actions undertaken towards increasing the relevant stakeholders' engagement in the project environmental, social and gender elements.**

The information in this subsection should be provided for all projects regardless of the E&S risk category for the project.

## Implementation of the stakeholder engagement plan

### Activities implemented during the reporting period

Project Inception Workshop with stake-holders from Districts, Private Sector, CSO, Partners, Government officials at the central and local level

### Dates and venues of engagement activities

Date: Monday, 3rd February 2020

Venue: Tashi Namgay Resort, Thimphu

### Information shared with stakeholders

- Sensitized stakeholders on project objectives, expected activities, outputs, outcomes and impacts
- Overview of the GCF as a funding mechanism for climate change adaptation and mitigation
- Review initial project deliverables, baselines and implementation arrangements (Stakeholder Engagement and Project Risks, Project Compliance and Due Diligence, GCF Operational and Reporting requirements, Implementation modality, AWP, procurement plan and FACE Form)
- Review of 18 months AWP

### Outputs including issues addressed during the reporting period

- Stakeholders sensitized on project and its compliance requirements
- Agreed on stakeholders' roles and support/involvement during project implementation
- Agreed on Annual Work Plan (AWP)

### Activities implemented during the reporting period

High level GCF project sensitization by PMU to stakeholders; attended by:

1. H.E. Speaker (National Assembly),
2. H.E. Chairperson of National Council,
3. Hon. MP Athang-Thedtsho Constituency,
4. Dasho Dzungdag (District Governors),
5. Dasho Dzungrab (Deputy Governors),
6. Gups (County Leaders) of 15 gewogs of Wangduephodrang
7. District Agriculture Officers
8. District Planning Officers
9. Engineers of Wangduephodrang

### Dates and venues of engagement activities

Date: 2nd July 2020

Venue: RSTA Meeting Hall, Wangdue Phodrang

### Information shared with stakeholders

- Officials at all levels: Members of Parliament, Districts and Local Government leaders sensitized on the GCF project portfolio and its expectations

### Outputs including issues addressed during the reporting period

- Sensitized on the GCF project and its requirements, ESMP, gender and Grievance redress mechanism
- Sensitized on the list of irrigation schemes under the project and for Wangdue Phodrang Dzongkhag

### Activities implemented during the reporting period

Public consultation with Phangyul Community on Phangyul irrigation scheme

### Dates and venues of engagement activities

Date: 30th July 2020

Venue: Phangyul Gewog Office

#### Information shared with stakeholders

- Sensitization on Environment and Social Safeguards & Grievance Redress Mechanism
- Social/public clearance on Phangyul irrigation scheme
- Participated by DASHO DZONGDA, DZONGRAB, DZONGKHAG ENGINEER, DZONGKHAG AGRICULTURE OFFICER, PLANNING OFFICER, CHAIRPERSON OF DZONGKHAG TSHOGDU, GEWOG STAFF AND FARMERS OF PHANGYUL AND KAZHI, CHIEF ENGINEER AND FOCAL ENGINEER FROM AGRICULTURE ENGINEERING DIVISION, DOA.

#### Outputs including issues addressed during the reporting period

- Sensitized on on ESMP and Grievance Redress Mechanism
- Social clearance for Phangyul irrigation scheme received from both the public of Kazhi and Phangyul gewogs.

#### Activities implemented during the reporting period

Annual Review & Coordination Meeting with stakeholders with RPs from Project Districts, Research Centres, Finance Official and Component Managers from Agencies

#### Dates and venues of engagement activities

Venue: Hotel Sonamgang, Punakha

Date: 28th Nov.-2nd December 2020

#### Information shared with stakeholders

- Review of the ongoing Q4 progress (Issues, Challenges & Risks)
- Sensitization on APR requirement and Co-financing
- Sensitization of GCF Environmental and Social Safeguards
- Review and Planning of 2021 AWP
- Review of Multi-Year Rolling Work Plan

#### Outputs including issues addressed during the reporting period

- AWP 2021 reviewed and developed
- Last mile mid-course corrections for Q4 delivery
- Stakeholders from districts fully sensitized on APR including ESMP, Co-financing and Gender Actions for project.

#### Activities implemented during the reporting period

Field visit and com-munity sensitization by PMU, UNDP-CO and District Agriculture and Engineers

#### Dates and venues of engagement activities

Date: 3rd - 9th December 2020

Site visited: Zhemgang, Dagana, Trongsa

#### Information shared with stakeholders

- Visited SLM and Irrigation Sites
- Monitored Climate Resilient Agriculture practices, Green Tea Plantation sites and support for winter vegetables

#### Outputs including issues addressed during the reporting period

- Met with farming communities of Zhemgang, Dagana and Trongsa.
- Sensitized on project's expectation and sustainability of project interventions

#### Activities implemented during the reporting period

High level project site visit and community consultation by

1. National Assembly Speaker, RGoB
2. Agriculture Ministr, RGoB
3. Resident Representative, UNDP-CO
4. Director - GNHC and DoA
5. District Governor and senior officials

**Dates and venues of engagement activities**

Date: 17-18th July 2020

Site: Wangdue District (Phangyul, Rinchengang, Research Centre – Bajo) and Punakha District (Chimmipang Royal Agriculture Project)

**Information shared with stakeholders**

- Field visit and met with communities and beneficiaries
- Sensitized on project's support towards climate resilient irrigation schemes by GCF

**Outputs including issues addressed during the reporting period**

- Community were sensitized on climate smart agriculture practices and resilient irrigation
- Secured local government's ownership and community agreement to project support

**Activities implemented during the reporting period**

Carryout sensitization on GCF Project, SLM & ALD & develop participatory SLM action plan

**Dates and venues of engagement activities**

Date: March- June 2020

Sites: Namlaythang, kapashing, Wangling, Patshaling, Napchey, Hebesa, Khomshar

**Information shared with stakeholders**

- Sensitization on GCF Project, SLM measures, ALD guidelines.
- Developed participatory SLM action planning

**Outputs including issues addressed during the reporting period**

- Farmers aware on importance of SLM, need of SLM & ALDG.
- Prioritization of plans based on limited fund

**Activities implemented during the reporting period**

Hands on training on SLM & ALD to machine operator & farmers

**Dates and venues of engagement activities**

Date: November 2020

Sites: Kapashing & Namlaythang

**Information shared with stakeholders**

- Farmers practically trained on contour stone bund & check dam construction

**Outputs including issues addressed during the reporting period**

- Farmers aware on ways of reducing surface soil erosion gullies

**Activities implemented during the reporting period**

Carryout sensitization on GCF Project, SLM & ALD & develop participatory SLM action plan

**Dates and venues of engagement activities**

Date: December 2020

Sites: Talo-Punakha

Tangsibi, Chendenjee & Baling- Trongsa



**Information shared with stakeholders**

- Sensitization on GCF Project, SLM measures, ALD guidelines.
- Developed participatory SLM action planning

**Outputs including issues addressed during the reporting period**

- Farmers awareness enhanced on importance of SLM, need of SLM & ALDG.

**Activities implemented during the reporting period**

Visit to project sites;

**Dates and venues of engagement activities**

Date: 21st - 27th May 2020

Sites visited: Reotala, Khagochen and Boxcut

**Information shared with stakeholders**

- Sensitized the Regional Offices: Trongsa and Sarpang on GCF Project

**Outputs including issues addressed during the reporting period**

- Site engineers informed about the project and its activities

**Activities implemented during the reporting period**

DoR carried out sensitization workshop on Climate-resilient road guidelines

**Dates and venues of engagement activities**

Date: October 2020

Venue: Regional Offices: Lobeysa, Trongsa, Lingmethang and Tashigang

**Information shared with stakeholders**

- Conducted sensitization program on the incorporations of climate-resilient guidelines in road infrastructures.

**Outputs including issues addressed during the reporting period**

- Engineers, RIs and surveyors were informed on the importance of climate related incorporations for the durability of road infrastructures under changing climate patterns

**Activities implemented during the reporting period**

Consultation Meetings of First Draft Report by M/s Alpha Geotech and Co. on the Khagochen and Reotala Investigation Report

**Dates and venues of engagement activities**

Date: 6th November 2020

Venue: MoWHS, Thimphu

**Information shared with stakeholders**

- The result and recommendation of geotechnical investigations at Khagochen and Reotala were shared to the floor

**Outputs including issues addressed during the reporting period**

- After understanding the geotechnical findings, suitable countermeasure structures for both the sites were selected for further detailed design.

**Activities implemented during the reporting period**

Sensitization work-shop on Climate-resilient road guide-lines (for HQ and Thimphu Regional Office)

**Dates and venues of engagement activities**

Date: 10th Dec 2020

Venue: MoWHS, Thimphu

**Information shared with stakeholders**

- Conducted sensitization program on the incorporations of climate-resilient guidelines in road infrastructures.

**Outputs including issues addressed during the reporting period**

- Engineers, RIs and surveyors were informed on the importance of climate related incorporations for the durability of road infrastructures under changing climate patterns

**Activities implemented during the reporting period**

Awareness workshop and survey program for Extensions, Local Government Officials and farmers in the selected Gewog

**Dates and venues of engagement activities**

Dates and Sites: 27th October to 27th November 2020 (Wangduephodrang, Tsirang, Dagana, Punakha) and 1st to 4th to 10th December, 2020 (Zhemgang, Trongsa)

**Information shared with stakeholders**

- Awareness on the existing weather and climate services
- Discussed the gaps and needs of the services for the agricultural planning

**Outputs including issues addressed during the reporting period**

- The participants sensitized on weather and climate services and its importance in planning

**Activities implemented during the reporting period**

Capacity building on community seed multiplication and management

**Dates and venues of engagement activities**

Dates: October to November

Sites: Villages under Punakha, Wangduephodrang, Trongsa, Dagana, Tsirang and Sarpang

**Information shared with stakeholders**

- Seed production technology on wheat, paddy and beans (Punakha and Wangduephodrang)
- Seed production technology on broccoli and cauliflower (Trongsa)
- Seed production technology on paddy, beans and mustard (Dagana, Tsirang and Sarpang)
- Seed production technology on paddy, ginger and turmeric (Sarpang)

**Outputs including issues addressed during the reporting period**

- Farmer's knowledge on seed production enhanced

<p><b>Activities implemented during the reporting period</b></p> <p>Capacity building and sensitization of Agriculture Extension Officers on Climate Smart Agriculture to eighteen extension officers from six pro-ject Dzongkhags viz Trongsa, Zhemgang, Tsirang, Dagana, Pu-nakha, and Wangdue</p>
<p><b>Dates and venues of engagement activities</b></p> <p>Date: 7-11 December 2020</p> <p>Venue: Agriculture Research &amp; Development Centre, Bajo, Wangduephodrang</p>
<p><b>Information shared with stakeholders</b></p> <ul style="list-style-type: none"> <li>• Conducted awareness programs, lectures and practical sessions on various climate smart agriculture technologies such as</li> <li>• Background on Green Climate Fund</li> <li>• Overview of climate smart agriculture and agromet services</li> <li>• Problem Tree Analysis</li> <li>• Basic Vegetable Production</li> <li>• Protected cultivation of important vegetables</li> <li>• Open Biochar and Water harvesting Technology</li> <li>• Integrated Pest Management</li> <li>• Fruit Orchard Management</li> <li>• National Citrus Repository Updates</li> <li>• Effective Micro-organism, Rice Bokashi and Biochar</li> <li>• Improved Vegetable Nursery technology</li> <li>• Basic Fruit Nursery Management</li> <li>• Field visit to research fields</li> </ul>
<p><b>Outputs including issues addressed during the reporting period</b></p> <ul style="list-style-type: none"> <li>• The training enhanced awareness as well as knowledge, skills and abilities of the extension officers to plan and implement various climate smart agriculture technologies in their respective communities once they return from the training program.</li> <li>• Sensitized on GCF Project goals and objectives</li> </ul>

**4.1.6 Implementation of the grievance redress mechanism - list on the grievances received in the reporting period with the description of the grievance, the date the grievance was received, and the resolution of the grievance.**

<p><b>Description of issues/complaints received during the reporting period</b></p> <p>No issues and complaint related to the project were received and/or registered during the reporting period.</p>	<p><b>Date of receipt</b></p>
<p><b>Description of resolution</b></p>	<p><b>Status of addressing issues/complaints</b></p> <p>n/a</p>

**4.2 Gender Action Plan**

The RGoB recognizes gender mainstreaming as one of the cross-cutting issues in its policies, plans and programs. Concurrently, gender equality is designated as one of the 17 National Key Result Areas in the current 12th Five Year Plan (2018-2023).

Key Achievement: In January 2020, RGoB has approved the National Gender Equality policy formulated with support from UNDP

The primary objectives of the policy are to:

- a. Provide a coherent strategic framework of the government's priority towards gender equality.
- b. Strengthen accountability and operational strategies to address priority gender issues.
- c. Facilitate deeper collaboration across sectors and stakeholders towards a common vision of gender equality.

Based on the gender action plan, following women-oriented activities were carried out in 2020:

1. Sensitization on rolling out of the Gender Mainstreaming and Action Plan: In line with the Project's Gender Action Plan and the policy of RGoB, the implementation was carried out considering aspects of gender mainstreaming and issues. Sensitization and hands-on workshop were carried out in Q2 and Q3 to stakeholders from the national agencies and districts. Gender disaggregated data by sex were maintained in the quarterly reporting to enable need-based interventions.
2. Integration of Gender issues into Baseline Survey: The ongoing baseline survey of the impact evaluation will aid in sharpening the GAP implementation. Questionnaires and FGDs are being designed with gender differentiated roles and disaggregated lens to gather findings related to socio-economic and cultural aspects on gender issues.
3. Engagement of women in the trainings, capacity building and decision making: The project is implemented through an inclusive and consultative process. In 2020, a total of 3,918 (2,203 Male, 1,715 Female) were trained and sensitized, of which 1,715 were women beneficiaries corresponding to 44%. Following are the women beneficiaries targeted under various interventions;
  - a. Awareness creation on weather and climate services: 509 are women, out of 1,099 beneficiaries.
  - b. Training and sensitization on climate resilient agriculture practices: 632 are women, out of 1,609 beneficiaries.
  - c. Hands on training on irrigation planning and designs: 2 are women, out of 26 participants
  - d. SLM participatory Action Planning: 318 are women, out of 587 beneficiaries
  - e. SLM site/field visits by farmers to see the SLM best practices: 134 are women, out of 248 participants
  - f. Training of farmers representatives in 6 villages on agriculture land development (terracing-farmers trained to run the A-frame for terracing): 92 are women, out of 230 participants
  - g. Sensitization on environmentally friendly road constructions: 28 are women, out of 119 participants.
4. Promotion of climate resilient agriculture practices: Given that women constitutes 63.2% of the farming population in Bhutan, project has supported reaching out directly to women beneficiaries. A total of 1,888 for resilient agriculture practices and 334 for organic farming were benefited, which corresponds to 48% and 68% respectively. Additionally, 930 farmers benefited from SLM, with more than 55% of women (513) will be benefiting from it.

Provide a progress report on the gender action plan developed during project preparation stage for the reporting period. This will primarily be a report on activities undertaken and results achieved as a result of completion of an activity. Further it should also indicate if the project is on track to achieving the intended outcome(s). The reporting should be done for activities, targets and indicators already set in the action plan including on vulnerable groups (youth, poor, female heads of households, etc.) as would have been identified in the gender analysis and action plan. If activities or targets are not achieved as per plan, reasons should be provided, and recourse action should be proposed. Please include a reporting on any changes or deviations. Include a Report on implementation challenges and lessons learnt and how these will inform on-going actions and what action will be taken by when to address the challenges faced. Incorporate both quantitative data and qualitative report of the performance of such actions, and on progress on actions identified.

**4.2.1 Progress on implementing the project-level gender action plan submitted with the funding proposal**

<b>Activity / Action</b>	
<p>1.1. Developing and integrating climate risk data into crop and livestock planning at the national and sub-national levels</p> <p>1.1.1. Training to 30 NCHM staff to a) combine local, regional/global information, disaster database and data from climate monitoring stations, b) model/forecast climate, flood, drought and water resource information (on daily to seasonal, as well as medium to long term timescales)</p> <p>1.1.2. Review and enhancement of crop and livestock loss methodologies for consistent tracking and measurement of losses against climate change variability and impact, and integration into planning processes</p> <p>1.1.3. Development of 9 tailored climate products, integrating climate change impacts on agriculture and related agriculture losses to inform planning</p> <p>Action: Ensure project supports are directed to women and men's practical and strategic needs and priorities that would bring transformational change in the gender relations and shift more powers to women</p>	
<b>Indicator</b>	
loss methodologies include gender (e.g. female headed households) -tailored climate information considers particular impact of climate on women where possible	
<b>Baseline</b>	<b>Target, including sex-disaggregation</b>
0	n/a
<b>Budget</b>	<b>Currency</b>
80,000	USD
<b>Report on annual progress</b>	
<p>1.2.1. Not planned in 2020. To be implemented in 2021.</p> <p>1.2.2. Not planned in 2020. To be implemented in 2021.</p> <p>1.2.3. Field Assessment of 20 Class A Agromet stations network and assessment of existing hydro-met database and architectural computing systems of NCHM for developing a centralized hydro-met database completed. These assessments will support climate informed planning and will serve as inputs towards coming up with tailored products and services. The products will be available from 2022.</p>	

<b>Activity / Action</b>	
<p>1.1. Developing and integrating climate risk data into crop and livestock planning at the national and sub-national levels</p> <p>1.1.4. Training to 150 MoAF staff on application of climate impacts and related loss information in agriculture planning</p> <p>1.1.5. Development of Standard Operating Procedures (SOPs) for effective and timely dissemination climate and climate risk information at the national and sub-national level</p> <p>Action: Ensure project supports are directed to women and men's practical and strategic needs and priorities that would bring transformational change in the gender relations and shift more powers to women</p>	
<b>Indicator</b>	
Number of women participating in training	
<b>Baseline</b>	<b>Target, including sex-disaggregation</b>
0	30% of training participants are women
<b>Budget</b>	<b>Currency</b>
50,000	USD
<b>Report on annual progress</b>	
<p>1.2.4. Not implemented due to COVID-19 pandemic.</p> <p>1.2.5. Not planned in 2020. SOP to be developed after all the products are available for operation.</p>	

<b>Activity / Action</b>
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1.2. Tailoring of climate information to support crop and livestock planning and agriculture households  
 1.2.1. Development of tailored climate information, and means of dissemination, for farmers to meet the short-term and long-term agriculture planning needs

Action: Ensure access to information on markets, pricing policy and climate through innovative information communication mechanisms to reach women

**Indicator**

Tailored climate information and dissemination considers women's priorities as well as challenges (e.g. differing levels of literacy)

**Baseline**

0

**Target, including sex-disaggregation**

n/a

**Budget**

200,000

**Currency**

USD

**Report on annual progress**

1.2.1. Groundworks and assessments carried out, but tailored products not yet developed. To design a demand driven and usable weather and climate forecast information, the survey was designed to integrate: 1) Gender and age 2) level of literacy 3) types of farming 4) Existing knowledge on use of the existing weather and climate information 5) Type of existing information they use 6) period farmers usually use the forecast information 7) Challenges faced in understanding the technical information.

**Activity / Action**

1.2. Tailoring of climate information to support crop and livestock planning and agriculture households  
 1.2.2. Annual trainings in 8 target dzongkhags designed and delivered to farmers, cooperatives and local government officers/NGOs on the application of tailored climate information to improve agriculture household planning

Action: Tailor capacity building needs to women and girls in ensuring equal participation and decision-making from local governance to national level

**Indicator**

**Baseline**

0

**Target, including sex-disaggregation**

50%

**Budget**

75,000

**Currency**

USD

**Report on annual progress**

1.2.2. Awareness workshops and survey conducted on weather and climate services for 1,099 participants from Local Government, agriculture officers and farmers in selected gewogs of six project districts.

- Wangduephodrang (7 Gewog; 221 participants - 125 Male, 96 Female)
- Tsirang (6 Gewog; 205 participants - 132 Male, 73 Female)
- Dagana (5 Gewog; 162 participants, 93 Male, 69 Female)
- Punakha (5 Gewog; 170 participants, 86 Male, 84 Female)
- Zhemgang (4 Gewog; 126 participants, 46 Male, 80 Female)
- Trongsa (5 Gewog; 215 participants, 108 Male, 107 Female)

**Activity / Action**

1.3. Scale up climate-resilient agriculture for diversified, resilient small-holder productivity  
 1.3.1. Training in community seed production and multiplication system to scale up diversified, climate resilient crops (such as cereals, potato, cardamom, ginger, etc.)

Action: Identification of gaps in gender equality through the use of sex-disaggregated surveys enabling monitoring and analysis of project benefits to women

**Indicator**

Sex and age disaggregated data on success of livelihood adoption, RCTs -documentation of results, best practices, etc. for further application

<b>Baseline</b>	<b>Target, including sex-disaggregation</b>
0	n/a
<b>Budget</b>	<b>Currency</b>
200,000	USD
<b>Report on annual progress</b>	
<p>1.3.1. 150 female farmers from 33 villages trained on community seed production, multiplication and cultivation of climate resilient crop alternatives such as Wheat, paddy and beans, mustard, ginger, turmeric, Broccoli and cauliflower (Trongsa). Overall success and impact will be known in 2021 and beyond when follow-up surveys through RCTs will be conducted to assess the impacts.</p> <p>- This training is mandated to enhance the knowledge and skills of farmers to become permanent seed grower especially in the woman lead households. The trained farmers will venture into seed business and are going to be recognized as client of NSC, who will buy back the seeds produced by farmers. This will ensure that besides helping farmers generate income, it also helps NSC produce and supply quality seeds in an adequate amount. The farmers trained will be producing seeds in the coming season.</p>	

**Activity / Action**

1.3. Scale up climate-resilient agriculture for diversified, resilient small-holder productivity

1.3.2. Investment in climate-resilient practices including cultivating alternatives such as hydroponics, aeroponic, vertical gardening; organic farming; and integrated pest-disease management, covering 161 ha

Action: Ensure that good practices and lessons learnt from promoting gender equality in climate change adaptation evidenced through the project are shared effectively amongst stakeholders and inform policy/decisions at national and sub-national levels.

To reduce negative impacts on women (e.g. workload, health), through project intervention on promotion and training on energy and labor saving technologies, ensuring use of existing time use data to ensure women are not overburdened by project activities.

Ensure access to information on markets, pricing policy and climate through innovative information communication mechanisms to reach women;

Tailor capacity building needs to women and girls in ensuring equal participation and decision-making from local governance to national level (e.g. entrepreneurial/business skills as expressed during consultations)

Growing role of women in agriculture, ensuring participation of women in community consultations to ensure adequate response to expressed needs and challenges. Consultations will make the necessary links to policies and programmes focused on empowerment and safety of women, so that communities are aware of their rights and of related support available (e.g. Respect Educate Nurture Empower Women (RE-NEW) <http://renew.org.bt/>).

**Indicator**

Same indicator with 1.3.1

<b>Baseline</b>	<b>Target, including sex-disaggregation</b>
Included with 1.3.1	Included with 1.3.1
<b>Budget</b>	<b>Currency</b>
	Please select

**Report on annual progress**

1.3.2. 3,972 farmers (2,084 Male, 1,888 Female) benefited through promotion of different climate resilient cultivating alternatives and intensive labour saving such as (detail gender disaggregated data in Section 2.3):

- Improved composting technologies
- Azolla
- Integrated pest management
- Rainwater harvesting
- Water harvesting – Silpaulian lined Ponds technologies
- Protected/Alternate crop cultivation using polyhouses
- Mulching materials for weeds suppression and water conservation
- Solar drying technology for chilli
- Green tea plantation
- Horticulture crops (Pineapples promotion)
- Seed multiplications production (Sensitization on climate resilient agricultural practices)

Socio-economic Impact from these interventions will be measured towards the end of 2021 and beyond through RCTs.

**Activity / Action**

### 1.3. Scale up climate-resilient agriculture for diversified, resilient small-holder productivity

1.3.3. Training delivered to farmers (2500 households, ensuring engagement of women and youth), cooperatives, and government/NGOs on climate risk management for value-chains and agricultural marketing.

Action: Ensure that good practices and lessons learnt from promoting gender equality in climate change adaptation evidenced through the project are shared effectively amongst stakeholders and inform policy/decisions at national and sub-national levels.

To reduce negative impacts on women (e.g. workload, health), through project intervention on promotion and training on energy and labor saving technologies, ensuring use of existing time use data to ensure women are not overburdened by project activities.

Ensure access to information on markets, pricing policy and climate through innovative information communication mechanisms to reach women;

Tailor capacity building needs to women and girls in ensuring equal participation and decision-making from local governance to national level (e.g. entrepreneurial/business skills as expressed during consultations)

Growing role of women in agriculture, ensuring participation of women in community consultations to ensure adequate response to expressed needs and challenges.

Consultations will make the necessary links to policies and programmes focused on empowerment and safety of women, so that communities are aware of their rights and of related support available (e.g. Respect Educate Nurture Empower Women (RE-NEW) <http://renew.org.bt/>).

#### Indicator

-men and women receiving support on cultivation alternatives

-men and women receiving information and support on markets, pricing and climate

#### Baseline

0

#### Target, including sex-disaggregation

50%

#### Budget

200,000

#### Currency

USD

#### Report on annual progress

1.3.3. 1,609 (Men 977, Women 632) training and sensitization program conducted on climate resilient agriculture practices.

Discussions were held in Q4 with potential firm (Agri-task) and agencies based in Singapore to explore partnership on digital solutions which could be leveraged on the existing initiatives namely e-Pest Surveillance System <http://epest.gov.bt/redirect.html?method=webRedirect&q=index> and the agromet [https://www.agromet.gov.bt/LandingPageInfo/about\\_agromet](https://www.agromet.gov.bt/LandingPageInfo/about_agromet) a platform developed by National Centre for Hydrology and Meteorology (NCHM) to visualize and collect data related to meteorology, hydrology, pedology and biological factors that influence agriculture production as well as the interaction between agriculture and environment.

Tailored capacity building will be targeted to the strategic needs of women/youth after products are being developed.

#### Activity / Action

2.1. Wetland and water management adapted to changing climatic conditions

2.1.1. Training to 15 dzongkhag engineers on climate resilient water irrigation designs and water harvesting, for improved oversight of construction and long-term maintenance of investments

2.1.2. Training to 16 WUAs on climate change impacts to water availability and means to protect water access and water sources

Action: Tailor capacity building needs to women and girls in ensuring equal participation and decision-making from local governance to national level

#### Indicator

Women engaged in training related to climate resilient water and irrigation designs, water harvesting and related O&M

#### Baseline

0

#### Target, including sex-disaggregation

30%

#### Budget

75,000

#### Currency

USD

#### Report on annual progress

i. 26 engineers (2 women, 24 men) given hands-on training on detailed survey and design of irrigation schemes. However, engineers in Bhutan are male-dominated occupation. Effort will be made in 2021 to engage more proportion of women engineers for Capacity building on climate resilient irrigation and water management technologies.

ii. Training and formation of WUAs affected by COVID due to restriction on large gathering and travel. It is planned in 2021.



**Activity / Action**

Activity 2.2. Establish-ment of climate resil-ient irriga-tion schemes and water saving tech-nologies

2.2.1. Upgrading of 32 existing irrigation schemes for greater climate-resilience, and realignment of 4 irrigation schemes to a reliable water source given the drying impacts of climate change, covering 6300 ha

2.2.2. Installation of water saving technologies, specifically 420 drip irrigation and 200 sprinkler irrigation schemes, covering 1700ha

2.2.3. Building 64 small earthen check dams and ponds, and 100 earthen tanks for water harvesting

Action: Support grow-ing role of women in agriculture, ensuring par-ticipation of women in community consultations to ensure adequate response to expressed needs and challenges

**Indicator**

Women with reliable water access for agri-culture

**Baseline**

0

**Target, including sex-disaggregation**

50%

**Budget**

100,000

**Currency**

USD

**Report on annual progress**

1.2.1. The irrigation schemes are under implementation phase. Actual beneficiaries will be ascertained after completion of scheme.

1.2.2. The activity will be taken up in 2022 as planned.

1.2.3. 87 farmers (45 Men and 42 female) were trained on building earthen check dams.

127 166 no. of water harvesting, and conservation ponds/earthen tank benefited 175 households or 356 farmers (134 men and 222).

**Activity / Action**

2.3. Scale up of sustaina-ble land management (SLM) tech-nologies to support soil and slope stabilization

2.3.1. Identification of SLM interventions to better protect agriculture land from the impacts of climate change induced erosion and landslides, following the Participatory SLM Action Planning methodology

2.3.2. Technical assistance and support to communities on the implementation of SLM practices to manage climate change risks, covering 2380 ha of arable land

Action: Support grow-ing role of women in agriculture, ensuring par-ticipation of women in community consultations to ensure adequate response to expressed needs and challenges.

Tailor capacity building needs to women and girls in ensur-ing equal par-ticipation and decision-making from local govern-ance to na-tional level

**Indicator**

Application of the bottom-up Participatory SLM approach will ensure active consultation and input by communities, including women, in identifying and implementing SLM practices

**Baseline**

0

**Target, including sex-disaggregation**

50%

**Budget**

300,000

**Currency**

USD

**Report on annual progress**

2.3.1. Initiated participatory SLM Action plan in 12 villages of 8 dzongkhags with 587 farmers (269 Men and 318 Women) participating in planning and decision-making exercise. Taking the SLM program at village and chiwog level as opposed to gewog level in the past facilitated more women participation in SLM program. Women could attend the SLM program from 9am-4pm and attend household chores after 5pm at home. Focus group discussion is practiced bringing on board women ideas and plans.

2.3.2. 930 farmers benefited from various SLM techniques, with 513 women and 417 men. SLM interventions are planned in consultative manner but most of the farmers have expressed interest for bench terracing as a preferred technique. However, given the resources and project targets, farmers are being sensitized on benefits of other techniques such as terrace consolidation, hedgerows, contour stone bunds and check dams.

**Activity / Action**

- 2.4. Capacity strengthening to farmers and extension officers on SLM technologies
- 2.4.1. Training to 120 DoA extension officers on SLM technologies and practices to manage climate change risks
- 2.4.2. Regular monitoring (twice annually) of soil conditions and soil stability to inform planning and policies related to soil management

Action: Tailor capacity building needs to women and girls in ensuring equal participation and decision-making from local governance to national level

**Indicator**

Women engaged in training on SLM technologies and related monitoring

**Baseline**

0

**Target, including sex-disaggregation**

30%

**Budget**

25,000

**Currency**

USD

**Report on annual progress**

1.4.1. Training of extension officer not implemented in 2020. The activity will be carried out in 2021.

1.4.2. Periodic field monitoring being conducted by NSSC and Districts/Gewog on SLM planning and implementation. Led by NSSC and Extension officers, training to farmers were carried out on Stone bund and check dam construction at two villages of Kapashing and Namlaythang with total participation of 87 (Male 45 and Female 42).

**Activity / Action**

- 3.1. Slope stabilization along key sections of roads, critical for market access
- 3.1.1. Conduct of technical study and design for slope stabilization interventions needed for three stretches of main road regularly incurring damages due to increased intensity of monsoon and disrupting market access to validate existing specifications that were based on roads work for similar conditions
- 3.1.2. Slope stabilization of three sections of main road regularly incurring damages due to increased intensity of monsoon

Action: Tailor capacity building needs to women and girls in ensuring equal participation and decision-making from local governance to national level

**Indicator**

Women engaged in training related to slope stabilization

**Baseline**

0

**Target, including sex-disaggregation**

30%

**Budget**

40,000

**Currency**

USD

**Report on annual progress**

1.1.1. A total of 119 participants (91 Male, 28 Female) comprising of Engineers, Road Inspectors and Surveyors were trained and sensitized on the climate-resilient road features.

- DoR HQ and Thimphu RO: Total heads 53; M:35 F:18
- Lobetsa Regional Office: Total heads 18; M:16 F:2
- Trongsa Regional Office: Total heads 14; M:11 F:3
- Lingmethang Regional Office: Total heads 18; M:16 F:2
- Tashigang Regional Office: Total heads 16; M:13 F:3

1.1.2. Trainings not implemented in 2020.

- But technical consultation meeting was held in Q4 2020 to decide on the counter measures option presented by Geo Alpha-tech. A total of 35 officials attended the consultation meeting (26 Men, 9 Women).

**Activity / Action**

3.2. Technical capacity building to support climate-risk informed and cost-effective slope infrastructure including stabilization, drainage and road construction & maintenance

3.2.1. Technical training to 15 DoR national and sub-national engineers on slope stabilization studies, and related designs, cost assessments and cost benefit analysis to inform climate-resilient planning

3.2.2. Review and enhancement of road damage collection methodology, and related SOPs for collection and reporting, to ensure consistent collection of road damage data and inclusion in national disaster loss and damage database

3.2.3. Training to RUGs and local government bodies on post- monsoon assessment of farm roads, including repair cost estimation

Action: Tailor capacity building needs to women and girls in ensuring equal participation and decision-making from local governance to national level

**Indicator**

Training seeks active engagement of women

**Baseline**

0

**Target, including sex-disaggregation**

30%

**Budget**

150,000

**Currency**

USD

**Report on annual progress**

1.2.1. Not implemented any training/workshops/capacity building on slope stabilization. Will be conducted only in 2022.

1.2.2. Not implemented. It is important to develop a proper SOP that can be uniformly adopted not just by DoR but also other relevant sectors such as the local government bodies and Thromdes (Municipalities). Hence, SOP will be reviewed and developed engaging engineers from the relevant sectors by end of Q4 2021.

1.2.3. Not implemented. Training to RUGs and local government bodies is planned in Q3 2021

**4.3 Planned activities on environmental and social safeguards for the next reporting period**

Environmental and Social Safeguard activities will be implemented and monitored as per the avoidance and mitigation actions identified in the ESMF during all phase of construction – both for irrigation and road sections.

Specifically, activities included in the Annual Work Plan (AWP) 2021 are to carry out:

1. Monitoring and evaluation of Environmental and Social Safeguards implementation for irrigation schemes and road sections. Develop ESMP, as necessary, for new irrigation sites and roads.
2. Water quality monitoring and testing in sites in collaboration with competent agency.
3. Soil contamination investigation in sites in collaboration with technical agency
4. Stakeholder engagement workshops and knowledge sharing, and lesson learnt workshop
5. Training/capacity building on ESMP and standards to project team.

Provide a list of activities in the ESMP to be implemented in the next reporting period. Include relevant deliverables such as reports or action plans, and other project specific products. Please include the monitoring schedule concerning ESS (including other potential vulnerable groups and indigenous people) for the next annual reporting period.

**4.4 Planned activities on gender elements for the next reporting period**

Moving forward in 2021, following approach and engagement plan will be deployed:

1. Engage and integrate strategic need of women into following trainings, workshop and interventions planned in 2021:

- a. Ensure equal participation and considers impact of climate on women headed households during the review and enhancement of existing crop and livestock loss collection and archival methodologies against the losses of climate change variability to be developed by Q1-Q2 2021.
- b. Involve as many women as possible in the NCHM staff training on operation of centralized database system for the development of tailored climate products and information.
- c. Invite equal gender representation for the two National Climate Outlook Forum (NCOF) to be conducted in Q2 and Q4 2021.
- d. Target to reach out to women headed households for interventions related to climate resilient agriculture practices, organic farming and promoting community seed production
- e. Engage women participation and decision making during the training and consultation on formation of Water User Association, Road User Groups (RUG) and SLM. Advocate for the gender balanced governance mechanism for WUA, RUG and SLM Groups.

2. Consultation, awareness and review meeting on Gender Action Plan and reporting to be carried out with all the responsible parties of the project including gender focal points from agencies. Stakeholders will be expected to share lessons and knowledge learnt from 2020 so that project activities are approached with gender sensitivity.

3. Organize technical workshop in Q1 2021 to review the findings of the Baseline Survey of Impact Evaluation to guide integration of gender dimensions and transformative result within the implementation.

4. Conduct Focus Group Discussion with Women to understand the women's role, socio-cultural and climate change issues impacting them so that gender-disaggregated data and indicators can be established to measure improvements and identify areas of focus

Provide a list of activities in the gender action plan to be implemented in the next reporting period. Include relevant deliverables such as reports or action plans, and other project specific products including processes that will be involved to implement the activities effectively. Please include the monitoring schedule concerning gender activities for the next annual reporting period. Report on actions taken on any of the recommendations made by the secretariat (if applicable) to improve the level of integration of gender issues in the project.

#### Confirmation and Acknowledgement of Information \*

\* This is a required question to submit section 4 of the Annual Performance Report (APR).

The accredited entity hereby confirms that the information provided in section 4 is complete and ready for submission.

## Section5:Annexes

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## Section 5: Annexes

Please note that this is section 5 of the six Annual Performance Report (APR) sections. APR will be considered valid only after all the six sections and the additional section on COVID-19 are filled with relevant details.

### Annex 1: Updated implementation timetable for the Funded Activity

Implementation Plan\_2020APR final.docx

Submit only if there are any changes from implementation plan submitted in the FAA.

### Annex 2: Accredited Entity compliance reports

Self-assessment reports, Report on Actions pursuant to Clause 18.02, if applicable. Self-assessment reports: In accordance with the AMA requirement in Clause 13.01 of the Accreditation Master Agreement, with the Fiduciary Principles and Standards, ESS and Gender Policy. Report on Actions pursuant to Clause 18.02: Only applicable to International Accredited Entities. In accordance with the Monitoring and Accountability Framework, a report on its actions carried out or planned to be carried out pursuant to Clause 18.02 of the Accreditation Master Agreement.

**Please provide comments on the annexes attached above if any.**

### Confirmation and Acknowledgement of Information \*

\* This is a required question to submit section 5 of the Annual Performance Report (APR).

The accredited entity hereby confirms that the information provided in section 5 is complete and ready for submission.

## Section6:Attachments

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## Section 6: Attachments

Please note that this is section 6 of the six Annual Performance Report (APR) sections. APR will be considered valid only after all the six sections and the additional section on COVID-19 are filled with relevant details.

Click on '+ Add row' to attach more than one document.

FP107 UNDP Bhutan 2020 APR.docx

Submit the Unaudited/Audited financial statement and Interim/Final evaluation report (as required by FAA). Submit a supporting document for Section 2.4. (Update Progress on the Logic Framework Indicators), describing the calculation methodology for the current values provided.

This sub-section 2.4 is not applicable for REDD+ Results-Based Payments Projects.

Other Attachments (if any). Such as additional budget-related information, loan repayment schedules to GCF (interest/principal), equity investment schedules, other related reports relevant to the Funded Activity, statements of capital account, valuation reports, credit guarantee agreements, investor reports, and others, as specified in the relevant legal agreements (e.g. Funded Activity Agreement, Shareholders Agreement)

For the Annual Performance Report of REDD+ Results-Based Payments projects, provide 'Implementation Timetable/Milestones for the next reporting period' and 'Financial Progress Details' as an attachment in this section.

Comments from AE (if any)

### Confirmation and Acknowledgement of Information \*

\* This is a required question to submit section 6 of the Annual Performance Report (APR).

The accredited entity hereby confirms that the information provided in section 6 is complete and ready for submission.



# AdditionalSection:COVID-19Impact

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## Additional Section: COVID-19 Impact

In this additional section of the Annual Performance Report (APR), please provide an update of COVID-19 impact on your project/programme. APR will be considered valid only after all the six sections and the additional section on COVID-19 are filled with relevant details.

**Please indicate if your project/programme is adversely impacted by the COVID-19 pandemic.**

Please select

**Please choose the severity of overall impact.**

Please select

Description of levels of severity:

1. On-track with no or minor impact: No or minor impact on project implementation and corresponding annual activities.
2. Facing delays: Implementation progress faced delays in the timeline but did not require any substantial changes in the implementation plan.
3. A minor change(s) required: Changes that are not classified as Major changes but requires intervention from GCF.
4. A major change(s) required: As per paragraph 16 of the Policy on Restructuring and Cancellation - Board Decision B.22/14 paragraph (a). Please find the link to the policy document below.

[GCF Policy on Restructuring and Cancellation](#)

**Please describe an overall impact on your project/programme by the COVID-19 pandemic (100-word limit).**

Provide a short description of the adverse impact on your project/programme and provide references or supporting materials in the Annexes and Attachments sections as relevant.

**Please describe details of challenges encountered and corrective/mitigation measures taken.**

**Select a type of the challenges encountered.**

Field Activities

**Describe details of the challenge encountered.**

Despite the challenges of COVID 19, the Project Management Unit with support from Gross National Happiness Commission (GNHC) and line ministries of the Royal Government of Bhutan (RGoB) ensured steady implementation delivering 75.42% of the first disbursement as of the date of reporting. This was enabled by:

the emphasis of the Royal Government of Bhutan's priority to achieve accelerated results on Food Self - sufficiency and Nutrition Security objective of the approved Economic Contingency Plan (ECP 2020)[1] - a recovery plan prepared in respond to the COVID 19 pandemic. The project objectives, outcomes and output were and still are relevant to achieving the results of ECP 2020. It helped the roll out investment on irrigation, agriculture technologies that are climate resilient including Co-financing investment on roads by the RGoB.

the decentralized nature of implementation where the District Governors (Dasho Dzongdag) were able to guide the day-to-day management of the project

Timely and special project Steering/board meeting helped to quickly remove bottlenecks and resolve issues. In 2020, the Project conducted three project steering/board meeting (more than in pre-COVID times).

However, some of the consultation had to move to digital medium while reducing the size of the participants in keeping with the need as well as the compliance requirement of the COVID protocol. Travel of the international consultants to conduct geotechnical assessment had to be deferred, while validation of some of the planned irrigation design and implementation thereof were affected as this requires community consultation and concurrence, including on the safeguard plan. The later cases were for the district of Samtse, Sarpang and Dagana as these districts share boarder with Indian towns and additional travel restriction were imposed as COVID 19 measures.

[1] Economic Contingency Plan (ECO 2020), RGoB, <https://www.cabinet.gov.bt/wp-content/uploads/2020/07/ECP-2020.pdf>

Sample challenges for Field Activities:

- Delays in travels, planned training, workshops, conferences, events, and awareness-raising events
- Limited access to project sites especially outer islands
- Postponed field missions for collecting/validating information, and conducting consultations with local stakeholders
- Measures required to ensure the security and safety of workers
- Delays in pilot projects, feasibility/baseline studies

**Describe details of the corrective/mitigation measures taken as much as you can.**

**Select a type of the challenges encountered.**

Supply Chain

**Describe details of the challenge encountered.**

Since Food Self-sufficiency and Nutrition Security is one of the three core objective and results areas of ECP 2020, any supplies related to agriculture programs were facilitated by the RGoB but in compliance with COVID protocols. Some delays therefore were observed but did not necessarily affect on the ground implementation of all feasible activities. However, cost escalation is evident because of the larger global supply chain disruption compounded by the necessity to comply to COVID protocol and delays ensued thereof. Due to lockdown, no expat labor is allowed affecting supply and hence there are also evidence to suggest that labor cost has increased.

For infrastructure related works such as roads, SLM and irrigation - civil works for which materials are locally available have been undertaken, and those requiring imports are facilitated by RGoB as per protocols in place.

Sample challenges for Supply Chain:

- Delays in procurement and importation of materials, and equipment due to halt in production or lack of raw material and supplies
- Logistic challenges leading to loss of business opportunities
- Need for extensions of tender submission dates

**Describe details of the corrective/mitigation measures taken as much as you can.**

**Select a type of the challenges encountered.**

Liquidity and Solvency Risks

**Describe details of the challenge encountered.**

So far there are no reported evidence to suggest issues related to liquidity and solvency. This is monitored duly by the PMU particularly noting that some irrigation works are contracted out. UNDP will continue to monitor as part of larger oversight mandate.

Sample challenges for Liquidity and Solvency Risks:

- Liquidity, market, and credit risk of sub-projects
- Limitations on marketing process and income difficulties
- Inflation expected due to unstable markets
- Limited ability to deploy longer-term debt for capital expenditure investments
- Lower disbursements from risk mitigation measures and decreased loan demand

**Describe details of the corrective/mitigation measures taken as much as you can.**

**Select a type of the challenges encountered.**

Project Costs

**Describe details of the challenge encountered.**

The cost escalation for irrigation work has been observed between the estimated amount and bid amount. This is likely due to material cost increase because of global supply chain disruption and additional COVID measures that have to be put in place, and labor cost increase since expat labor (relatively cheaper) are not allowed in as part of COVID measures.

UNDP and the PMU are monitoring and jointly assessing what could be overall impact (+/-). This and the revalidation of design and estimates of 32 old irrigation schemes and 4 new irrigation schemes by the end of 3rd quarter to guide the further decision making as needed.

Sample challenges for Project Costs:

- Cost increases or budget reallocations due to personnel contract extension, security, safety, office rentals, shipping, travel as well as needs for sanitizers, workshops, communication modalities on the field, and remote-working arrangement
- Cost inflection due to delayed purchases and unstable markets

**Describe details of the corrective/mitigation measures taken as much as you can.**

**Select a type of the challenges encountered.**

Financing and Concessionality

**Describe details of the challenge encountered.**

The agreed RGoB parties to this project remain committed to ensure that Co-financing requirement is met. APR for 2020 confirms the realization of co-financing amount of USD 10,048,476, out which USD 7,148,280.00 (inclusive of 4,940,000 in commitment through contracts) was invested for enhancing the resilience of Gewog Connectivity roads and actual expenditure incurred for the monsoon restoration works (of roads).

As of now there are no indication to suggest that CO-financing commitment would be affected, as co-financing is related to areas prioritized by the government in response to COVID.

Sample challenges for Financing and Concessionality:

- Possible amendments to co-financing availability, financing for project management costs, and disbursement schedules
- Contractors facing challenges in acquiring loans from financial institutions and commercial banks
- Increased risk aversion towards the agricultural and agroforestry sectors
- Increasing uncertainty causing postponement or cancellation of investment decisions
- Likely extension for the closing date and completion date

Describe details of the corrective/mitigation measures taken as much as you can.

Select a type of the challenges encountered.

Others

Describe details of the challenge encountered.

So far there are none that suggest that this project will be affected. On the contrary, government has prioritized investment in agriculture as part of ECP 2020.

Describe details of the corrective/mitigation measures taken as much as you can.

Please describe if any support is required from the GCF to address the COVID-19 impact on your project/programme.

**Confirmation and Acknowledgement of Information \***

\* This is a required question to submit the additional section of the Annual Performance Report (APR).

The accredited entity hereby confirms that the information provided in the additional section on COVID-19 is complete and ready for submission.

# Section1:GeneralInformation

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# Section 1: General Information

Please note that this is section 1 of the six Annual Performance Report (APR) sections. APR will be considered valid only after all the six sections and the additional section on COVID-19 are filled with relevant details.

**1.1 Please indicate if information provided in this APR is disclosable outside the Green Climate Fund. \***

- Yes - The Accredited Entity agrees that the information reported is disclosable.
- No - The information reported is partly confidential. The disclosable version of the APR will be attached.

If you select the second option [No - The information reported is partly confidential. The disclosable version of the APR will be attached], please follow the below steps.

- Step 1: Fill in all the sections of the APR with disclosable information.
- Step 2: Save each section using the 'Open as PDF' function provided in the top-right corner. (Do NOT submit an APR at this step).
- Step 3: Attach all these disclosable six sections, including an additional section on COVID-19, to the attachment boxes below, which will be shown once you check the second option only.
- Step 4: Update all the sections of the APR below with non-disclosable information.
- Step 5: Submit the non-disclosable APR with an attachment of the disclosable APR in the PDF format.

**Please attach the disclosable Section 1 of the Annual Performance Report**

**Please attach the disclosable Section 2 of the Annual Performance Report**

**Please attach the disclosable Section 3 of the Annual Performance Report**

**Please attach the disclosable Section 4 of the Annual Performance Report**

**Please attach the disclosable Section 5 of the Annual Performance Report**


Please attach multiple documents, if required.

**Please attach the disclosable Section 6 of the Annual Performance Report**


Please attach multiple documents, if required.

**Please attach the disclosable Additional Section on COVID-19 of the Annual Performance Report**

**1.2 Please indicate if this report has been shared with the relevant NDA(s) for this Funded Activity**


Once the APR is created in the PPMS, please use the 'Open as PDF' function to download the report in PDF format and to share with relevant authorities (i.e. NDAs) before submission. Select 'Yes' only if shared to ALL the relevant NDA(s).

**Please Indicate the date of submission to NDA(s)**


If the APR is submitted to multiple NDAs, please indicate the latest date of submission to NDA, and provide the other dates per NDA in the further explanation box below.

**Please provide further explanation, if any:**

**1.3 Funded Activity Title (Project/Programme Title)**



**1.4 Funding Proposal Reference Number**

107

**1.5 Board Meeting Number**

23

**1.6 Accredited Entity contacts for this APR****Full Name**

Ms. Mariana Simoes

**E-mail Address**

Mariana.simoes@undp.org

**Phone Number**

+662 304 9100

**1.7 Executing Entity(ies)****Full Name of Executing Entity**

Gross National Happiness Commission (GNHC)

**1.8 Project Duration****From**

2019-11-07

**To**

2025-11-07

**1.9 Current Year of Implementation**

1

Indicate the year number, e.g., '2'

**1.10 Annual reporting period covered in this report****From**

2020-01-01

**To**

2020-12-31

**Confirmation and Acknowledgement of Information \***

\* This is a required question to submit section 1 of the Annual Performance Report (APR).

 The accredited entity hereby confirms that the information provided in section 1 is complete and ready for submission.

## Section2:ImplementationProgress

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## Section 2: Implementation Progress

Please note that this is section 2 of the six Annual Performance Report (APR) sections. APR will be considered valid only after all the six sections and the additional section on COVID-19 are filled with relevant details.

### 2.1 Overall (summary) project progress

The Project received its first tranche disbursement corresponding to USD 3,096,334 was on 28th January 2020. The project was launched on 3rd February 2020 with an Inception Workshop. Implementation commenced during a time of unprecedented challenges due to the COVID 19 pandemic. The Royal Government of Bhutan (RGoB) imposed the first nation-wide lockdown from 11th August – 7th September 2020 and the second lockdown starting 20th December 2020 – 4th January 2021 to contain the spread of virus. Despite the challenges, the project registered significant progress with an overall financial expenditure of more than 75% against the first tranche release from GCF of USD USD 3,096,334.00. This was largely due to projects overall alignment to RGoB’s “building back better” pandemic response through the implementation of Economic Contingency Plan (ECP 2020) to create employment for the laid off employees and to jump start economic recovery efforts. The ECP focus on Agriculture and Food Security provided an impetus for the project to accelerate implementation and to reinforce the fostering of resilient agriculture practices for better recovery and livelihood opportunities. The summaries are presented below:

The Project Management Unit, Project Board, Technical Advisory Coordination Committee, designation of Component Managers and focal points at agencies and districts are complete. The PMU now has a full time Project Manager, Monitoring and Evaluation Specialist, Irrigation specialist and designated project finance officer (RGoB). The PMU is supported by the Project Technical Officer recruited under the UNDP contract. Three Board and two TAAC Meetings were held, which aided support where it is needed the most.

Assessment of the existing hydro-met database management system (DMS) and requirement were completed with an aim to enhance system capacity to deliver required climate advisory services. Consultations were also conducted with agriculture field staff and researchers to assess the status of existing weather and climate information services and to identify gaps and needs. Further consultation will be continued in 2021 to understand weather observation parameters to mainstream climate information into agriculture plans and program that will inform generation of relevant agriculture technologies to support resilient development.

A total of 26 district engineers were given hands-on training on the climate resilient planning and design of irrigation systems who spearheaded the revalidation of survey, design and estimates for retrofitting climate resilient design features for 13 irrigation schemes. Work has begun for 8 irrigation schemes (55.5km) with five be commenced in Q1 of 2021.

A total of 3,972 farmers in 8 districts benefited from adoption of climate-resilient agriculture practices while 1,609 comprising of agriculture extension officers, local government leaders and farmers were trained and sensitized on climate resilient agriculture practices. 271 farmers were engaged by the National Seed Centre to promote community seed production, multiplication and cultivation of climate resilient crop. A total of 230.33 hectares of agriculture land were brought under sustainable land management practices preventing from erosion and landslides benefiting 930 farmers, while also initiating the preparation of Participatory Sustainable Land Management Action Planning in 12 villages of 8 districts. The late will guide the districts for strategic and staggered investment decisions to upscale SLM practices both from project and RGoB investment. Agroforestry systems and practices were also promoted through plantation of green tea in 3.237 Ha that benefited the total of 29 HHs. There are 31 members who have formed a group to promote local green tea in Trongsa, of which 90% of the members are women.

The field investigation and geotechnical study for Reotala and Kagochen are complete while study of the Box Cut section was delayed due to COVID-19 and is expected to be complete only in August 2021. The proposed interventions, once finalized and implemented is expected to minimise the market disruptions. A total of 119 officials comprising Engineers, Road Inspectors and Surveyors were also trained and sensitized on the Guidelines on Design, Construction and Maintenance of Road Infrastructure Incorporating Climate Resilient Features (2019) developed with financial support from GEF – LDCF project Enhancing Sustainability and Climate Resilience of Forest and Agriculture Landscape and Community Livelihoods” supported by UNDP.

Design of Impact Evaluation and Baseline Survey was initiated to establish the baseline to monitor and assess the progress and effectiveness of the project intervention in eight districts. However, pretesting of a survey that was planned in December 2020 was delayed due to the 2nd COVID pandemic lockdown. Baseline is planned in Q1 while the follow-up impact surveys will be carried out towards end of 2021.

Risk Assessment and Mitigation Measures: Except the unchanging risks from COVID-19 impacts, risks and mitigation measures identified at the project design phase remain unchanged. Risks were periodically assessed to identify critical challenges and likely impact on the project. The specifics of challenges encountered, and actions undertaken including lessons learned are elaborated in Section 2.6. In response to COVID, three Project Board Meeting were convened, which is more than the required of twice in a year. A 4th was scheduled in December 2020 but had to be postponed due to abrupt lockdown. Project Board has made its conscious decision to meet more frequently to provide timely guidance and proactive oversight throughout the implementation process. It helped to optimize support and solve problem where it is needed the most. Four quarterly progress review and coordination workshops were conducted to review and integrate mid-course corrections.

Notwithstanding of the progress so far, certain delays might be inevitable in months ahead given the uncertain COVID-19 circumstances.

Provide a narrative report describing the overall progress on the implementation of the funded activity, focusing on implementation achievements, delays, and challenges according to the planned activities. As relevant, include references to other sections of this report (including Annexes or Attachments). Include a description of key milestones of the funded activity achieved during this reporting period including any deviations from original expectations. Also, describe challenges encountered and actions undertaken to resolve these challenges, and lessons learned during the implementation, including issues related to non-compliance with GCF standards or conditions, if any. In parallel, include positive achievements and better-than-expected results. If any issues have arisen in the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project, please provide a description of those items and how they have impacted the implementation period and final targets. Kindly make sure that this section just gives an overall summary and doesn't have overlap with other sections.

## 2.2 Performance against the GCF investment criteria (summary)

Provide a narrative report describing the progress on the funded activity's performance against the GCF investment criteria framework. The performance should be compared against the initial assessment provided in the Board-approved Funding Proposal (section E). The list of the investment criteria as per the current framework is provided below. For each investment criteria outlined below, please include an assessment of current status, changes, progress and impact of the project as well as any impact of project context on the project during this reporting period against the initial baseline scenario and planned activities as per the assessment presented in the approved Funding Proposal. This sub-section 2.2 is not applicable for REDD+ Results-Based Payments Projects. Please write 'Not Applicable' as the response.

#### Relevant Links

[The GCF investment criteria framework](#)

#### 2.2.1 Impact Potential

**Building Resilience and Livelihood of Most Vulnerable and Smallholder Farmers:** As part of the inception workshop, training was conducted on impact evaluation to central and local government partners, and the evaluation is being designed and discussed with stakeholders to establish a baseline and monitor the impact of the project on beneficiaries.

**Adaptation Impact through Weather and Climate Information Services:** Assessment of Agromet network and existing hydro-met Database Management System (DMS) and IT infrastructures of NCHM including the Aviation-Met at Paro International airport and Glacial Lake Outburst Flood (GLOF) Early Warning System (EWS) will contribute to:

- developing a robust centralized hydro-met Database Management System (HDMS) for NCHM.
- provision of efficient and timely hydro-met information and services.

**Adaptation Impact through Increased Resilience of Infrastructure and the Built Environment:** Proper planning and design of irrigations and roads are critical for sustainability of infrastructures. Therefore, hands-on Training was conducted for engineers to enhance the capacity building, maintenance and operation of irrigation in the fields. Activities such as water harvesting ponds and rainwater harvesting were initiated to upscale sustainable water management to ensure access for crop cultivation.

Detailed Geotechnical investigation and countermeasure structures for mitigation is identified for landslides at Reotala on Trongsa-Gelephu Primary National Highway (PNH) and Khagochen on Sunkosh - Dagana Secondary National Highway. The mitigation works will start from 2021.

**Adaptation Impact through Promotion of Climate Resilient and Smart Agricultural Practices:** Numerous activities were carried out to promote climate resilient agriculture practices such as promotion of prefabricated poly houses, greenhouse, mulching, azolla, composting technology, agroforestry etc. A sensitization on climate resilient agriculture technology was conducted to local government officials and farmers. SLM Action plans for 8 districts were initiated that will guide the investment strategies for combating Land Degradation and improving land productivity through techniques such as Contour hedgerows, contour bunds, bench terracing, nutrient management, water source protections, plantations and check-dams. A total of 271 farmers were trained on community seed production and multiplication systems to scale up diversified and climate resilient crops.

The project completed first year of implementation, and it is on track to achieve the intended results.

#### 2.2.2 Paradigm shift potential

The proposed project will support the RGoB to not only to build resilience, but also to initiate the change needed to transition from responsive measures to climate-informed planning, and from climate vulnerable agriculture practices and towards sustainable and viable agriculture.

The biggest paradigm shift is the institution of climate informed planning and policy support. This will be achieved by enhancing the data availability from the NCHM and incorporating those climate data for design and planning of infrastructures. To cite, the design of irrigation schemes will consider the climate information so that the water becomes available for longer duration and to avoid drying up of sources. The funded activities support a paradigm shift in the project landscapes leveraged by significant RGoB Co-finance and commitments both during and beyond the project period. The project is an exemplary model of cross-sectorial partnership and multi-partner - coordination amongst relevant agencies such as MoAF, NCHM, Department of Roads (DoR), local government organizations and ongoing GEF-LDCF Project - all coming together to address the challenges posed by climate change. GCF funded activities are progressing in a manner that directly capacitates national and sub-national agencies while building climate resilience of smallholder farmers. Thus, paradigm potential for this project is significant given that project deals directly with smallholder farmers in increasing their resilience and community-based adaptation through intervention such as participatory SLM and community engagement.

**Potential for replication, knowledge sharing and learning:** In year-1, information was collected for the design of climate-informed agriculture planning and advisory services to farmers. The project supported NCHM to assess management capacity and upgradation of climate advisory into national climate database, modelling and systems. District engineers' capacity has been enhanced and integration of climate resilient features into irrigation systems strengthened through their hands-on engagement in survey, design and supervision. Most importantly, through this project, local government officials and farmers were now aware on the importance of developing climate resilient water, soil and irrigation management systems. Agriculture land at risk of land degradation and erosion are now protected, which will have long term positive impact in securing food and improving resilient livelihoods.

**Knowledge sharing and sensitization on climate resilient road construction guidelines:** Sensitization and awareness on the Guidelines on Design, Construction and Maintenance of Road Infrastructure Incorporating Climate Resilient Features (2019) to all engineers were conducted across the 20 districts. In 2020 alone, RGoB co-financed the construction of 262.45km of six Gewog Connectivity Roads at the district of Dagana, Samtse, Sarpang and Zhemgang integrating the EFRC features.

**Potential for community mobilization and long-term capacity building:** In Bhutan, seeds are mainly supplied to farmers by government designated agencies. Through the National Seed Centre, farmers were organized into community seed grower groups, who were trained on participatory seeds production and multiplication. This is beyond one-off investment creating self-help groups to diversify and upscale climate resilient seeds while also generating socio-economic co-benefits and sustainability. These groups will be direct clients of NSC to produce quality seeds - a sustainable business model. Further, project will be training the WUA and RUGs for community engagement, ownership and sustainability.

### 2.2.3 Sustainable development potential

Per the decentralization policy of the government, the funded activities are directly implemented by local governments (Districts, agriculture Extensions, Community Leaders) through active involvement of farming communities. Through the implementation of the following activities, the project contributes directly to three global Sustainable Development Goals - SDG 1: No poverty, 13: Climate action and 15: Life on land (these three SDGs are prioritized by the RGoB).

**Economic co-benefits:** The project is directly contributing to long term sustainability of agriculture rural development and enhances food security and livelihood improvement leading to overall poverty reduction. These are achieved by 1) strengthening the resilience capacity of agriculture resource and assets such as - irrigation channel, roads and land; 2) strengthening the technical capacity of the farmers to mainstream resilient practices and technologies into daily practices and 3) enhancing the capacity of the service agencies to provide necessary advisories to the farmers on timely manner. The investment from the project directly respond to the government's COVID economic recovery plan and provides opportunities for youth and laid-off employees into farming. These benefits will be quantified in the subsequent years through impact surveys.

**Social and environmental co-benefits and management capacity:** The project is designed to inherently bring larger environmental benefits with positive socio-economic gains. The incorporation of resilient features into irrigation and road construction is expected to mitigate environmental damages through reduction of landslides and erosion while assuring access to water for enhanced agriculture production and guaranteeing market access providing economic growth opportunities.

The intervention on sustainable land management and resilient agriculture practices and technologies contribute to building long-term adaptive capacity of the farmers. Further, support to developing Community based Sustainable Land and Water Management Group, first of its kind initiated through this project will provide inclusive platform for communities to discuss, plan and implement activities taking into consideration the social and economic consideration while ensuring environmental sustainability.

**Promoting Gender equality and empower all women and girls:** As per the National Labour Force Survey (2018), 53.9% of population constitutes farming population, of which 63.2 are women. The project's intervention on providing climate advisory support services and resilient agriculture technologies are focusing on women, youth and marginalized communities.

Result on these will be assessed and reported in the subsequent years.

### 2.2.4 Needs of the recipient

The funded activities are aimed at enhancing resilience of smallholder farms by adapting to vulnerable risks and hazards in face of climate change, particularly variation in rainfall and frequent extreme events. The project interventions were designed based on vulnerability and needs of the beneficiaries and was revalidated during Inception Workshop that was attended by District Governors and officials from Planning, Agriculture, Private Sectors and CSOs. Subsequently, year-1 extensively focused on setting up project's institutional arrangements, community engagements, sensitization among sectors and carrying out the necessary feasibility studies for civil infrastructures for irrigation and road sections.

**Addressing Barriers to Address Water Management and Irrigation System:** Consultation and need assessment were carried out with local government officials and beneficiaries prior to initiating implementations. Voluntary no objection and social clearances are secured upon extensive consultation for infrastructure works while considering the environmental safeguard standards and as per the prevailing rules, regulation and procedures of the Royal Government of Bhutan. The design of irrigation schemes also considers long term impacts and issues concerning the drying up of water sources.

**Co-financing and Financial Needs:** RGoB's contribution and prioritization of climate proofing of roads will strengthen resilience capacity of infrastructure, which will strengthen agriculture marketing and linkages. Further, RGoB's commitment for cash and in-kind contributions ensures sustainability of the project investment.

**Baseline Assessment Survey for Impact Evaluation:** Currently, a baseline household survey is being designed in 8 project districts to unearth the baseline data that can help to establish the logical relationships between the project inputs and activities to produce the anticipated outputs, outcomes and long-term results. A preliminary assessment of Agromet stations across the country was also conducted aimed at understanding the technical capacity and gaps of the existing infrastructures. The findings from assessment will help strengthen the design of agromet services in subsequent years.

### 2.2.5 Country Ownership

**Alignment to National Priorities and ownership:** The project interventions are articulated and supports implementation of Royal Government of Bhutan's (RGoB) six adaptation priorities of the Nationally Determined Contribution (NDC) - water security and climate proofing water distribution systems, promoting climate resilient agriculture, promotion of sustainable soil and land management technologies as priority adaptation needs. The project is aligned to Sectoral Adaptation Plan of Action (SAPA) of the Ministry of Agriculture and Forests, which also form as an integral part of 12th Five Year Plan of RGoB. The funded activities are streamlined in the Annual Performance Agreement of the agencies and districts while contributing to five of the 17 national key result areas (NKRA) - 1) Healthy Ecosystem, 2) Water Security, 3) Food and Nutrition Security, 4) Carbon Neutral, Climate and Disaster Resilient Development, 5) Gender equality and women empowerment, and 5) Poverty Eradicated and Inequality.

**Institutional Ownership:** The project governance and implementation structure are fully entrenched in accordance with the National Execution (NEX) Manual agreed between RGoB and UNDP. Accordingly, all management aspects are owned by the Implementing Partner (IP) or the National Designated Authority (NDA) with responsibility for daily management delegated to an independent Project Management

Unit (PMU) with recruitment of Project Manager, M&E Specialist, Irrigation Design specialist, and Surveyors while Project Director, Finance Officer, Procurement Officer and support staff are being fully deputed from the RGoB. The PMU is fully supported by Five Component Manager from Department of Agriculture (DoA), National Centre for Hydrology and Meteorology (NCHM), Department of Roads (DoR), National Soil Service Centre (NSSC) and Agriculture Engineering Division (AED). Further, the project focal points in each RP agency and districts are designated - Agriculture officers, Engineers, Planning Officers and regional research stations to drive implementation in the fields.

**PB and TAAC:** The Project Board (PB) chaired by the Secretary, Gross National Happiness Commission and Co-chaired by Resident Representative, UNDP was instituted to provide high-level guidance and oversight for implementation. The PB comprises the Senior Management from the Responsible Parties. Besides, Technical Advisory and Coordination Committee (TACC) are composed of multi-disciplinary team of technical experts from the relevant agencies to support with necessary technical review and advice to ensure that project adopts an integrated approach and its implementation are technically sound keeping with RGoB, GCF and UNDP standards including Social and Environmental Safeguards. In the context of COVID-19, IP/PMU has led a series of consultations to discuss project risks, possible delays and mitigation measures with support from RPs.

**RGoB Resources Contribution (Cash and In-kind):** Additionally, RGoB's ownership to project is evident total co-financing of USD 10,048,476, of which cash contribution of USD 7,148,280, inclusive of \$4,940,000 in commitment through contracts, was for enhancing the resilience of Gewog Connectivity (GC) in rural part of the country and expenditure for the monsoon restoration works. USD 2,900,196 was also contributed as in-kind in the form of a dedicated project space, technical and operation team to run the project during this reporting period.

### 2.2.6 Efficiency and Effectiveness

**Effectiveness to deal with COVID-19 response and long-term resilience:** Almost all winter vegetable requirements of Bhutan depend on import, which are exposed to external risks of disruption in the food supply chain. Pandemic situation has further aggravated import of some essential commodities. Therefore, noting the Agriculture is at the core of RGoB's COVID-19 Recovery Plan, funded activities reinvigorated policy direction towards boosting local food production and water security through promotion of climate smart agriculture practices through supply of inputs, guided training and demonstration in vegetable cultivation, protected cultivation systems and marketing aspects. This is expected to save cost in the long term while generating green jobs for youth, men and women as co-benefit. More detailed assessment of the existing baseline and impact from year-1 implementation will be initiated by the end of 2021.

**Efficiency and effectiveness of project interventions also rests on competency of farmers.** Training and capacity building are being conducted through this project and it is expected to build their long-term technical capacity and awareness to deal with climate variability.

**Cost efficiency:** Beneficiary's ownership and contribution for project interventions will form a critical basis towards achieving cost efficiency and sustainability in the long run. For example - poly houses for promotion of protected agriculture practices are supplied on a cost sharing basis with project bearing 80% and farmers contributing 20% of the total cost. Further, while the upfront cost for EFRC road construction is high, it is cost effective in the long run due to lesser O&M costs.

## 2.3 Project Outputs Implementation Status

## Use 'Add Row' button to add multiple outputs and/or activities reported against one output

**Project Output Name**

1. Promote resilient agricultural practices in the face of changing climate patterns

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 1.1 Developing and integrating climate risk data into crop and livestock planning at the national and sub-national levels

**Status**

Activity started - progress on track

**Implementation Progress**

15

%

**Progress for the relevant reporting period**

Progress (Milestone Achieved):

1. Field Assessment of 20 Class A Agromet stations network in 20 dzongkhags (districts) completed. The Agromet stations, termed as Class-A stations are used mainly for agriculture through the forecast, verification and quantification. Assessments for 20 Class-A Agromet station networks and assessment of existing hydromet database are completed, both of which will serve as foundation towards developing products. Products to be available by 2022

2. Completed assessment of existing hydro-met database and architectural computing systems of NCHM for developing a centralized hydro-met database for the development of tailored climate products. The assessment report and system requirement specifications are produced. This database will be used for generating weather and climate services through process involving: 1) Data collection, transmission and reception from the stations; 2) Storage, processing and data management; 3) Running models, analysis and verifications; and 4) Generation of the desired outputs/products. The climate advisories will be generated with support from DoA (agriculture specific advisories) and the community will be trained on the application of those products and services.

3. The in-house piloting at NCHM was conducted on generation of monthly seasonal forecast and verification of medium range forecasting (3-10 days).

Delays/Issues:

- Although the field assessment of stations was completed, the consultation meetings with four Agriculture Research and Development Centres (ARDC) and District Agriculture Officers (DAO) were delayed and could not commence due to Covid-19 pandemic. The consultation meeting is primarily aimed at reviewing the stations networks for enhancing agricultural practices.
- Training of NCHM Staff on agromet services could not be conducted due covid-19 pandemic lockdowns and travel restrictions.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. A review and enhancement of existing crop and livestock loss collection and archival methodologies for consistent tracking and measurement of losses will be carried out and SOP will be developed by Q1-Q2 2021.

2. NCHM staff will be trained on operation of centralized database system for the development of tailored climate products and information.

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

1. Promote resilient agricultural practices in the face of changing climate patterns

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 1.2 Tailored climate information and related training to local government and farmers to interpret and apply climate risk data to local and household level agriculture planning

**Status**

Activity started - progress on track

**Implementation Progress**

10

%



**Progress for the relevant reporting period**

Progress (Milestone Achieved):

1. Awareness workshops alongside survey was conducted on weather and climate services for 1,099 participants from Local Government, agriculture officers and farmers in selected gewogs of six project districts.
  - a. Wangduephodrang (7 Gewog; 221 participants – 125 Male, 96 Female)
  - b. Tsirang (6 Gewog; 205 participants – 132 Male, 73 Female)
  - c. Dagana (5 Gewog; 162 participants, 93 Male, 69 Female)
  - d. Punakha (5 Gewog; 170 participants, 86 Male, 84 Female)
  - e. Zhemgang (4 Gewog; 126 participants, 46 Male, 80 Female)
  - f. Trongsa (5 Gewog; 215 participants, 108 Male, 107 Female)
2. The small group survey was conducted mainly to understand the data, gaps and needs of weather and climate services in the agricultural planning and establish the status of awareness of the farmers on the existing weather and climate services.

Delays/Issues:

- The National Climate Outlook Forum (NCOF) – a platform where all the climate users and providers communicate on the application and needs for weather and climate information was scheduled in Q2 2020 but could not be conducted due to COVID-19 pandemic as it involves large gathering.
- Awareness workshops and surveys on weather and climate services were conducted in small gathering in six districts but not be initiated in the southern districts (Samtse and Sarpang) as these areas given its location at the international border was demarcated under the Red Zones for COVID-19 pandemic.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. Two National Climate Outlook Forum (NCOF) to be conducted in Q2 and Q4 2021 to guide the development and application of climate information in decision-making in climate-sensitive sectors. NCOF is a program, where seasonal outlook for monsoon are discussed and disseminated with key stakeholders from Agriculture, Disaster, Energy, Environmental, Tourism, Hydropower, Engineering, NGOs, media, etc. Means of delivery will need to be assessed based on COVID-related restriction measures in place at the time.
2. NCHM will institute a functional climate database by Q3 2021, which will serve as platform and inputs for the development of tailored products and information

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

1. Promote resilient agricultural practices in the face of changing climate patterns

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 1.3 Scaling up climate-resilient agriculture practices, and training local entities in community seed production and multiplication and cultivation of climate-resilient crop alternatives

**Status**

Activity started - progress on track

**Implementation Progress**

20

%

**Progress for the relevant reporting period**

## Progress (Milestone Achieved):

1. 3,972 farmers (2,084 Male, 1,888 Female) benefited in eight districts through promotion of different climate resilient agriculture practices including organic farming and seed multiplication and diversification program –
  - a. Improved composting technologies (6 male & 7 female)
  - b. Azolla (2 male & 3 female)
  - c. Integrated pest management and Biodigester (277 male & 326 female)
  - d. Rainwater harvesting - water storage tanks (14 male & 12 female)
  - e. Water harvesting – Silpualin lined earthen tank/ponds (128 male & 189 female)
  - f. Protected/Alternate crop cultivation using polyhouses (395 male & 415 female)
  - g. Mulching materials for weeds suppression and water conservation (277 male & 249 female)
  - h. Solar drying technology for chilli (13 male & 32 female)
  - i. Green tea (8 male & 21 female)
  - j. Horticulture crops: Pineapples promotion (3 male & 4 female)
  - k. Seed multiplications production (121 male & 150 female)
  - l. Sensitization on climate resilient agricultural practices (840 male & 480 female).
2. 616 Farmers (282 Male, 334 Female) including groups benefited from promotion of organic farming such as –
  - a. Bio-digesters (2 male & 4 female),
  - b. Bio-pesticides, and Integrated pest management (275 male & 322 female)
  - c. Composting (5 male & 8 female).
3. 1,609 training and sensitization program conducted for agriculture extension officers, local government leaders and farmers on climate resilient agriculture practices.
  - a. The first staff training was conducted to agriculture extension officers of the project district covering 18 staff (16 male, 2 female) on different climate smart agriculture technologies in Q4, 2020 aimed at enhancing knowledge, skills and abilities to plan and implement climate resilient technologies in their respective fields
  - b. The sensitization/awareness programs were conducted to the local government leaders (Gup, Mangmi, Tshogpa, Gewog Adm. Officer) and & farmers of the project districts to create awareness on the project goals and objectives and climate change impacts on agriculture, water and land resources including adaptation measures.
    - o 578 (354 Male, 224 Female) sensitized in Q2, 2020.
    - o 742 participants (486 males, 256 females) sensitized in Q3 & Q4 of 2020.
  - c. 271 (121 Male, 150 female) farmers from 33 villages trained by the National Seed Centre on community seed production, multiplication and cultivation of climate resilient crop alternatives. The training was implemented in six project districts as follows:
    - o Wheat, paddy and beans (Punakha and Wangduephodrang)
    - o Broccoli and cauliflower (Trongsa)
    - o Paddy, beans and mustard (Dagana, Tsirang and Sarpang)
    - o Paddy, ginger and turmeric (Sarpang)
 Farmers capacity and knowledge on seed production will augment National Seed Centre in producing and supplying adequate quality seeds in the country.
4. Installed the three-sprinkler irrigation system for on station germplasms (Mango, Assorted Fruits & Nuts, Coffee and Litchi germplasm) at Agriculture Research & Development Centre (ARDC) in Samtenling covering about 3.5 acres as part of demo technology to farmers.
5. Designs of the impact evaluation and baseline surveys for the project is currently ongoing through international and local expert firm. Baseline survey will be completed by February 2021.

## Delays/Issues:

- Implementation of planned activities such as staff training and sensitization programs to local government leaders and farmers due to restrictions on travel and gathering. In line with COVID-19 safety protocols, meetings and training programs were conducted in smaller groups.
- Procurement of materials (polyhouses, mulching materials, water pumps, etc.) were delayed due to limited international trade and restrictions due to Covid-19 pandemic. The procurement of materials mostly from neighbouring India are channelized through designated local dealers as per the emergency government integrated procurement system during the pandemic.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. Promote improved composting technologies (eg. vermi-compost, heap compost, green manure, organic fertilizers, bio-digester etc.)
2. Promote biochar technology and fruit crops germplasm blocks
3. Communities to be trained on various organic technologies and practices, integrated pest and disease management, climate resilient agriculture technologies and innovative farming techniques, soil and moisture conservation, Protected Agriculture Technologies.
4. Climate resilient orchard development
5. Promote community seed production system for traditional seeds to diversify climate resilient crops (2 Farmer Groups in each of the 8 districts.
6. Design of Impact Evaluation and baseline assessment survey to be completed by Q1 2021.
7. First follow up survey of Impact Monitoring to be initiated in Q1 of 2022

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

2. Integrate climate change risks into water and land management practices that affect smallholders

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 2.1 Enhancing climate-informed wetland and water management to support agriculture planning

**Status** **Implementation Progress**

Activity started - progress delayed 5 %

**Progress for the relevant reporting period**

Progress (Milestone Achieved)

- As this entails WUAs, this has not yet been implemented due to COVID restrictions

Delays/Issues:

- Formation and training of the Water User Association was planned for 715 participants for nine schemes (Dungkarcholing, Khomshar, Jigmethangyuwa, Rukha, Manigang, Rinchengang, Pangkabjiyuwa, Lachuyyuwa and Mangchukha schemes) in four project dzongkhags (Tsirang, Zhemgang, Punakha and Wangdue Phodrang) but delayed due to covid-19 lockdown and travel restrictions.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. Formation and training of 12 Water Users Association (WUA) starting from Q2 2021
2. Training and capacity building of engineers on climate resilient irrigation

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

2. Integrate climate change risks into water and land management practices that affect smallholders

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 2.2 Establishment of climate resilient irrigation schemes and water saving technologies for smallholder farmers in 8 target dzongkhags

**Status** **Implementation Progress**

Activity started - progress on track 30 %

**Progress for the relevant reporting period**

**Progress (Milestone Achieved):**

- Hands-on training on detailed survey and design of irrigation schemes was provided to 26 districts and site engineers by the agriculture engineering divisions in Paro from 9th-23rd July 2020.
- The works for eight irrigations schemes with total length of 55.5 km namely Khomshar (3.8 km), Thewar (4.6 km), Dungkarcholing (3 km), Rukha (8.8 km), Manigang-Kasichelgo (3.3 km), Rinchensng (12 km), Pangkabjiyuwa (14.9 km) and Lachuyuwa (5.1km) were initiated in Q4 but its full implementation slightly delayed due to covid-19 pandemic nationwide lockdown and travel restrictions. Its implementation will be continued in 2021. Works entailed obtaining clearances, surveys, designs, and estimates and award of tender. ESMP measures, as per ESMF, will be applied for strengthening of existing schemes.
- The revalidation surveys, design, drawing and estimates for another five schemes with total length of 31 km namely Mangchukha (4 km), Sipsoo-Biru (7.8 km), Jigmethnagyuwa (13.5 km), Tsainzigo (3.7 km), and Samcholing Kasameh (2 km) are being readied for tender but delayed due to covid-19 nationwide lockdown.
- Public/social clearance for the Phangyul scheme (Largest irrigation to be financed by GCF) has been obtained from the public of both Kazhi and Phangyul Gewog on 30th July 2020. Also, Terms of Reference for DBOT (Design, Built, Operate & Transfer) modality of 34 km Phangyul irrigation scheme was drafted but further review, consultation and hiring of consultant/contractor was delayed due to covid-19 pandemic.
- One project engineer and two field surveyors hired for the project to conduct proper survey, design, drawing and estimates as well as construction supervision for the irrigation schemes. This will ensure timely support to districts engineers and guarantee the quality of construction works to comply with the Environment and Social Management Framework (ESMF).

**Delays/Issues:**

- Revalidation of surveys, designs, drawings and estimates of irrigation schemes took time as it requires extensive consultations with communities, local government officials and detailed planning and design. Further, covid-19 nationwide lockdowns and travel restrictions delayed the implementations.
- Most of the old irrigation schemes approved for renovation under the project are open channels but under climate resilient designs they would need to be strengthened with the concept of highly pressurized HDPE pipes. The validation of this enhancement took time because of limited or no capacity of dzongkhag engineers and due to limited number of irrigation engineers at the centre (Department of Agriculture) to provide technical backstopping. Therefore, Engineering Division at the Department of Agriculture conducted 2-week hands-on trainings to district engineers on planning and design of climate resilient irrigation, followed by recruitment of project engineer to provide technical backstopping on quality assurance.
- All-in-all, implementation was impacted due to covid-19 lockdown and travel restrictions.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

- Survey and design of Phangyul Irrigation Schemes
- Validation survey and design to be carried out for Phendey Yuwa, Tashipang and Pemashong (Mendelgang), Neycheychhu (Sergithang), Rejuk (Umling), Juprey irrigation scheme (Samtenling), Phakey (Shompangkha), Lower Balbotey (Tashichholing), Tendutar (Tendu), Gambadara (Samtse), Lamitar (Yoeseltse), Lingthey & Hariya Khola (Sangacholing), Chhukam (Dorona).
- Carry out continuous compliance monitoring on implementation of ESMP and review ESMP.
- Conduct water source and soil quality testing in 13 sites
- Construction of Mangchuka (Gangtey) irrigation scheme to be initiated.
- Continue implementation of 8 schemes

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

2. Integrate climate change risks into water and land management practices that affect smallholders

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 2.3 Scaling up of sustainable land management (SLM) technologies to support soil and slope stabilization

**Status**

Activity started - progress on track

**Implementation Progress**

25 %

**Progress for the relevant reporting period**

Progress (Milestone Achieved):

1. 230.33 ha of agricultural land were rehabilitated and brought under sustainable land management regime through:
  - o Bench Terracing: 102.4 ha benefitting 210 households with a total population of 841 (male=371 and 470 Female) across 8 project dzongkhags.
  - o Terrace consolidation: 35.2 ha benefitting 61 households with population of at eight villages in six project dzongkhags.
  - o Hedgerow: 90.13 ha at five villages in four project dzongkhags.
  - o Counter bund (0.80 Ha) and check dam constructions (0.40 Ha) at two villages of Kapashing and Namlaythang with total participation of 87 (male=45 and female=42) farmers.
  - o 1.4 Ha of orchard terracing was carried out in two villages (Tsirangtoed & Puentenchu) in Tsirang benefiting two households (male=1 and female=1).
2. Carried out a participatory SLM Action plan in 12 villages of 8 dzongkhags with 587 farmers (male=269 and female=318) corresponding to 591 HHs participating in planning exercise. Consultations will continue in other identified villages in 2021. Thereafter, SLM Action planning will be finalized.
3. 2 acres dryland soil erosion plot established at ARDC Yusipang to study and document the amount of topsoil washed from different SLM plots annually and best SLM measures recommended for future scaling up.
4. 12 water source protections were completed benefitting 324 households in 12 villages in 8 project dzongkhags.

Delays/Issues:

- Participatory SLM Action Planning for Districts delayed due to COVID-19 Pandemic disruptions.
- The unit cost of land development (terracing) per acre had increased from (USD 473 to USD 743) as private machines had to be hired as government CMU machines are engaged in other national projects and activities. Moreover, Medium size machines with chain width of 2 - 2.5meter is considered favourable for terracing, which is not readily available in market. Use of large size excavators on steep slope (20 degree plus) are avoided as it results in higher riser formation and weak foundation of terrace.
- More resources and time are dedicated to take SLM program at village/chiwog level as opposed to past where it used to be organized at gewog centre level. However, it was felt necessary to conduct at village/chiwog level so that more women can participate in land-use planning and SLM practices.
- SLM interventions are season and time bound. Hedgerow plantations must be carried out during summer/monsoon season whereas terracing and consolidation must be implemented during winter and dry season after the harvest of crops. Some of the SLM activities were therefore delayed due to COVID-19 pandemic and had to be postponed until next season.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. Carry out SLM in 8 districts – Bench terracing and dryland terracing, terrace consolidation, contour hedgerows, contour stone bunds, orchard terracing, plantations and check dams in degraded areas.
2. Carry out water source protection works in Tsirang, Dagana, Zhemgang and Sarpang.
3. Review and develop Participatory Action Plan in 8 Districts

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

2. Integrate climate change risks into water and land management practices that affect smallholders

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 2.4 Capacity strengthening to farmers and extension officers on SLM technologies

**Status**

Activity started - progress on track

**Implementation Progress**

20 %

**Progress for the relevant reporting period**

Progress (Milestone Achieved)

1. Trained 12 machine operators and 230 farmers representatives in 6 villages on agriculture land development (terracing-farmers trained to run the A-frame for terracing) in six districts (Punakha, Wangdi, Zhemgang, Trongsa, Tsirang and Dagana). Similar training in Sarpang and Samtse could not be conducted due to COVID-19 pandemic as these areas were designated as COVID-19 Red Zone by the Government since August 2020.
2. 248 farmers (male 114 and female 134) from four dzongkhags of Punakha, Wangduephodrang, Tsirang and Dagana participated in the SLM site/field visits to see the SLM best practices within the project dzongkhags. Other four dzongkhags could not organize the field visits due to covid-19 lockdowns and travel restrictions.
3. Trained 80 farmers' representatives for a day at Kapashing in Tsirang and Namlaythang village in Dagana on developing contour stone bunds & check dam construction. Around 0.8 Ha and 0.40 Ha of land was brought under stone contour bund and check dam construction respectively in two villages. Further replication of trainings program in other dzongkhags was affected by COVID 19 pandemic.
4. 15 sets of SLM posters printed and ready for distribution to be used during the SLM training to farmers by the Dzongkhag agriculture and extension staff.

Delays/Issues

- Implementations of training were delayed because of covid-19 nationwide lockdowns and travel restrictions.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. Train machine operators on Sustainable Agriculture Land Development
2. Capacity building of Agriculture Extension workers on SLM technologies and ESMP
3. Carry out mass awareness campaign on community based SLM

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

3. Reduce the risk and impact of climate change induced landslides during extreme events that disrupt market access

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 3.1 Slope stabilization along key sections of roads, critical for market access, and related technical capacity and knowledge products to support climate resilient road planning and construction going forward

**Status**

Activity started - progress delayed

**Implementation Progress**

20

%

**Progress for the relevant reporting period**

Progress (Milestone Achieved)

1. Slope stabilization of Reotala and Khagochen
  - a. M/s Alpha Geotech, the local consultancy firm was commissioned to conduct a geotechnical investigations and design of countermeasure structures at Khagochen and Reotala landslides. The initial contract period was from 3rd June 2020 – 1st December 2020, however, no cost extension of 45 days had to be sanctioned as the firm's field works were hampered due to incessant rainfall during monsoon. After time extension, the revised contract duration for firm stands from 3rd June 2020 – 15th January 2021.
  - b. All field works on aspects related to geotechnical and geophysical tests, bore hole drilling, soil testing and rock classification were completed in Q4 2020. Such tests are to assess and ascertain the magnitude of landslide risks, geotechnical features/characteristics of site and to propose the countermeasures design. Sites for this work include Reotala and Khagochen.
2. Slope stabilization of Box-cut
  - a. Geotechnical investigations and design of countermeasure structures at Boxcut landslide. An Inception Report was submitted on 18th June 2020.
  - b. The initial contract duration was from 1st June 2020 – 31st December 2020, however due to the covid-19 pandemic this was revised to 31st August 2021.

Delay and issues:

1. Due to the covid-19 pandemic, the International consultancy experts could not make visit to the project site for necessary field works and investigations. The project team will review the situation in March-April 2021 for the possibility of their visit.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. Complete geotechnical investigations and design of countermeasure structures for Reotala and Khagochen by Q1 of 2021.
2. Prepare contract documents, initiate procurement process and award the work for Reotala and Khagochen by Q2 2021. Initiate mitigation works by Q3 2021.
3. Conduct geotechnical investigations for Boxcut landslide.
4. Develop site specific ESMP for roads prior to construction, implement and monitor

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

**Project Output Name**

3. Reduce the risk and impact of climate change induced landslides during extreme events that disrupt market access

The output name should match with the output reported in the sub-section 2.4.3. If you have multiple activities to be reported against one output, you need to write down the same output name for every activity.

**Project Activity Name**

Activity 3.2 Technical capacity building to support climate-risk informed and cost-effective slope infrastructure including stabilization, drainage and road construction & maintenance

Status	Implementation Progress
Activity started - progress on track	15 %

**Progress for the relevant reporting period**

Progress (Milestone Achieved)

- Sensitization workshops on “Guidelines on Design, Construction and Maintenance of Road Infrastructures incorporating Climate-resilient Features” was conducted in Regional Offices; Lobeysa, Trongsa, Lingmethang and Tashigang from 19th Oct to 27th Oct 2020 and for HQ and Thimphu Regional Office on 10th December 2020.
- A total of 119 participants (91 Male, 28 Female) comprising of Engineers, Road Inspectors and Surveyors were trained and sensitized on the climate-resilient road features.

Delay and issues:

1. Sensitization workshops on the remaining four Regional Offices are being delayed due to covid-19 pandemic lockdowns and travel restrictions and will be continued after the lockdown in 2021.

Provide an updated progress on this project activity for the relevant reporting period, including delays and issues encountered, key milestones reached, and lessons learned, including issues related to non-compliance with GCF standards or conditions, vis-à-vis expectations, if any. In parallel, include positive achievements and better-than-expected results.

**Key milestones and deliverables for the next reporting period**

1. Carry out Review and enhancement of road damage collection methodology, and related SOPs for collection and reporting, to ensure consistent collection of road damage data and inclusion in national disaster loss and damage databases by Q3-Q4 2021.
2. Training to Road User Groups (RUGs) and local government bodies on post-monsoon assessment of farm roads, including repair cost estimation by Q3 2021

Please include a list of key milestones and deliverables expected to be executed in the next reporting period.

2.4 Progress Update on the Logic Framework Indicators

Values of Baseline, mid-term target and final targets should be the same from the approved funding proposals unless calculation methodologies were revised in agreements with the GCF. Please attach a supporting document(s) describing the calculation methodology of the current value of all the indicators in Section 6; the indicators cover core, impact, outcome, and output levels. If there is a change in the methodology, you need to include clear justifications for the change and changed values as compared to the previous year.

This sub-section 2.4 is not applicable for REDD+ Results-Based Payments Projects. Please write 'Not Applicable' as the response.

#### 2.4.1 Core Indicators

##### Select applicable core indicators

- Mitigation Core Indicator 1 - Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>eq) reduced as a result of GCF funded project/programme
- Mitigation Core Indicator 2 - Cost per tCO<sub>2</sub>eq decreased for GCF funded project/programme
- Mitigation Core Indicator 3 - Volume of finance leveraged by GCF funding (Disaggregated by public/private source)
- Adaptation Core Indicator 1 - Direct Beneficiaries of GCF funded project/programme
- Adaptation Core Indicator 2 - Indirect Beneficiaries of GCF funded project/programme
- Adaptation Core Indicator 3 - Number of total beneficiaries relative to total population



## 2.4.2 Impact Indicators

### Select applicable impact indicators

- M1.1 Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>eq) reduced or avoided as a result of increased low-emission energy access and power generation
- M2.1 Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>eq) reduced or avoided as a result of increased access to low-emission transport
- M3.1 Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>eq) reduced or avoided as a result of buildings, cities, industries and appliances
- M4.1 Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>eq) reduced or avoided as a result of sustainable management of forests and conservation and enhancement of forest carbon stocks
- A1.1 Change in expected losses of lives and economic assets due to the impact of extreme climate-related disasters in the geographic area of the GCF intervention
- A1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including fisheries, agriculture, tourism, etc.)
- A1.3 Number of Fund funded projects/programmes that supports effective adaptation to fish stock migration and depletion due to climate change
- A2.1 Number of males and females benefiting from introduced health measures to respond to climate-sensitive diseases
- A2.2 Number of food secure households (in areas/periods at risk of climate change impacts)
- A2.3 Number of males and females with year round access to reliable and safe water supply despite climate shocks and stresses
- A3.1 Number and value of physical assets made more resilient to climate variability and change, considering human benefits (reported where applicable)
- A4.1 Coverage/scale of ecosystems protected and strengthened in response to climate variability and change
- A4.2 Value of ecosystem services generated or protected in response to climate change

**A1.2 Number of males and females benefiting from the adoption of diversified, climateresilient livelihood options (including fisheries, agriculture, tourism, etc.) (Units: number of individuals and percentage %)**

Please provide ex-post 'Current Value' on a cumulative basis.

Baseline	Baseline (% of female)
0	
Current Value	Current Value (% of female)
4902	50
Mid-term Target	Mid-term Target (% of female)
25000	52
Final Target	Final Target (% of female)
182277	55

**Remarks (including changes, if any)**

Irrigation  
 Actual beneficiaries will be updated after completion of the upgradation and construction of the proposed schemes.  
 Detailed progress in section 2.3.

SLM:  
 Additionally, 587 farmers took part in the participatory SLM Action Planning

Resilient agricultural practices:  
 Additionally, 1,609 were trained and sensitized on climate resilient agriculture practices.

Note:

Current value:  
 Irrigation:  
 0  
 SLM:  
 Total: 930  
 Male: 417  
 Female: 513  
 Resilient agricultural practices:  
 Total: 3,972  
 Male: 2,084  
 Female: 1,888

Midterm target:  
 Total: 25,000 Male: 12,240 Female: 12,760 (note: households not necessarily unique per Intervention )  
 \*i.e. farmers may benefit from all interventions, or a combination of irrigation, SLM and resilient agriculture measures, reflecting the appropriateness of interventions for the location and landscape

Final target: Irrigation Total: 14,340 Male: 7,050 Female: 7,350  
 SLM Total: 103,346 Male: 50,601 Female: 52,745  
 Resilient agricultural practices Total: 64,591 Male: 31,626 Female: 32,965

**A2.3 Number of males and females with year round access to reliable and safe water supply despite climate shocks and stresses (Units: number of individuals and percentage %)**

Please provide ex-post 'Current Value' on a cumulative basis.

<b>Baseline</b>	<b>Baseline (% of female)</b>
0	
<b>Current Value</b>	<b>Current Value (% of female)</b>
0	
<b>Mid-term Target</b>	<b>Mid-term Target (% of female)</b>
5000	52
<b>Final Target</b>	<b>Final Target (% of female)</b>
14340	52

**Remarks (including changes, if any)**

Implementation on renovation/ upgrade of 8 irrigation schemes are ongoing. Total beneficiaries will be updated after completion of some irrigation schemes.

**Notes:**

Midterm target: Total: 5000 Male: 2450 Female: 2550

Final target: Total: 14,340 Male: 7,050 Female: 7,350

**A3.1 Number and value of physical assets made more resilient to climate variability and change, considering human benefits (Units: multiple, as applicable)**

Please provide ex-post 'Current Value' on a cumulative basis.

**Select Units (as many as applicable)**

- Persons
- Economic Assets
- Other

km

**Unit - Other**

Baseline	Current Value	Mid-term Target	Final Target
0	0	140	232.22

**Remarks (including changes, if any)**

Farm roads  
 Four farm roads were tendered out, but works are delayed due to covid-19. To be reported from 2021 onwards.

Sections of roads:  
 Geotechnical Investigation Studies for two sites: Reotala and Khagochen are completed. Mitigation works is planned for implementation by Q3 2021.

Notes:

Current value:  
 Farm roads:  
 0  
 GC Road:  
 221.5 km of covering 6 GC roads constructed  
 (USD6,650,000)  
 Sections of Road:  
 0

Midterm target:  
 Climate resilience enhanced for:

- 90 km of farm roads (USD 2.970 million)
- 140 km of GC roads (USD 7.214 million)
- 1 section of main road (USD 0.553 million)
- 16 irrigation schemes (USD 4.000 million)

Final target:  
 Climate resilience enhanced for:

- 170.24 km of farm roads (USD 5.618 million)
- 232.22 km of GC roads (USD 11.966 million)
- 3 sections of main road (USD 2.019 million)
- 32 irrigation schemes (USD 8.192 million)

**2.4.3 Project/Programme-level Outcome & Output Indicators**

Please provide ex-post 'Current Value' on a cumulative basis. If you have multiple outputs to be reported against one outcome, you need to write down the same outcome name for every output. Likewise, if you have multiple indicators to be reported against one output, you need to write down the same output name and corresponding outcome name for every indicator.

Use 'Add row' button to add multiple outcomes, outputs and/or indicators.

<b>Results Area Type</b> Adaptation	<b>Outcome Name</b>		
<b>Output Name (under the afore-mentioned outcome)</b> Output 1. Promote resilient agricultural practices in the face of changing climate patterns			
Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.			
<b>Indicator Name</b> 1.1. % of beneficiaries in targeted dzongkhag accessing improved climate services			
<b>Unit</b> %			
<b>Baseline</b> 0	<b>Current Value</b> 0	<b>Mid-term Target</b> 30	<b>Final Target</b> 70
<b>Remarks (including changes, if any)</b> Year 1 and 2 of the projects will ensure that necessary foundation, database and groundworks are complete before coming up with robust and useful advisory services. Proportion of beneficiaries will be ascertained only after climate services are developed and operational.			

<b>Results Area Type</b> Adaptation	<b>Outcome Name</b>		
<b>Output Name (under the afore-mentioned outcome)</b> Output 1. Promote resilient agricultural practices in the face of changing climate patterns			
Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.			
<b>Indicator Name</b> 1.2. Increased institutional capacity for climate- informed agriculture planning			
<b>Unit</b> %			
<b>Baseline</b>	<b>Current Value</b> 0	<b>Mid-term Target</b> 30	<b>Final Target</b> 60
<b>Remarks (including changes, if any)</b> Existing Institutional Capacity of Agriculture Ministry and its related agencies to plan and implement climate resilient integrated landscape management and community development will be referred to develop capacity. Assessment was conducted in 2018 through NAPA-3 project with support from UNDP and financed by GEF Capacity need and gap assessment will be conducted.  Notes: Baseline: Survey to be conducted prior to any training Midterm target: Average increase of scores by 30% from baseline Final target: Average increase of scores by 60% from baseline			

<b>Results Area Type</b> Adaptation	<b>Outcome Name</b>		
<b>Output Name (under the afore-mentioned outcome)</b> Output 1. Promote resilient agricultural practices in the face of changing climate patterns			
Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.			
<b>Indicator Name</b> 1.3. Level of knowledge and adoption by beneficiary households of climate resilient and sustainable crop production practices			

**Unit**  
level

Baseline	Current Value	Mid-term Target	Final Target
1	1	2	4

**Remarks (including changes, if any)**  
Level of knowledge and adoption by beneficiary households will be ascertained during the follow up impact surveys in subsequent years. Design of impact evaluation through baseline survey is in progress

**Results Area Type**  
Adaptation

**Outcome Name**

**Output Name (under the afore-mentioned outcome)**  
Output 2. Integrate climate change risks into water and land management practices that affect smallholders

Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.

**Indicator Name**  
2.1. Change in knowledge, awareness and perception (KAP) on role of wetlands and sustainable water use

**Unit**  
%

Baseline	Current Value	Mid-term Target	Final Target
		20	70

**Remarks (including changes, if any)**  
Follow up impact surveys are planned in 2021 and 2022. Awareness and sensitization programme will be conducted.

Note:  
Baseline: Established through initial KAP survey in Year 1  
Current value: TBD  
Midterm target: 20% increased over baseline  
Final target: 70% increase over baseline

**Results Area Type**  
Adaptation

**Outcome Name**

**Output Name (under the afore-mentioned outcome)**  
Output 2. Integrate climate change risks into water and land management practices that affect smallholders

Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.

**Indicator Name**  
2.2. Technical capacity of members of Water User Associations, Dzongkhag engineers and agriculture extension officers for climate adaptive water and soil management is enhanced

**Unit**  
%

Baseline	Current Value	Mid-term Target	Final Target
		30	60

**Remarks (including changes, if any)**

Related activities delayed due to covid restrictions. Surveys and trainings will be conducted prior to formation and operation of WUAs.

- Dzongkhag engineers and agriculture extension officers planned to be trained in 2021 on climate resilient irrigation and water management respectively.
- WUA formation and training planned in 2021

Note:

Baseline: Survey to be conducted prior to any training

Current value: TBD

Midterm target: Average increase of scores by 30% from baseline

Final target: Average increase of scores by 60% from baseline

**Results Area Type**

Adaptation

**Outcome Name**

**Output Name (under the afore-mentioned outcome)**

Output 2. Integrate climate change risks into water and land management practices that affect smallholders

Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.

**Indicator Name**

2.3. Area of arable land under assured irrigation in targeted dzongkhags

**Unit**

ha

**Baseline**

0

**Current Value**

0

**Mid-term Target**

3000

**Final Target**

8000

**Remarks (including changes, if any)**

Work related to strengthening of climate resilient irrigation is in progress covering 520.8 Ha of farmland

Note:

Midterm target: 3,000 ha of farmland with reliable irrigation, schemes constructed to be resilient to the impacts of climate change

Final target: 8,000 ha of farmland with reliable irrigation, schemes constructed to be resilient to the impacts of climate change

\*Includes 4 new irrigation schemes, 32 existing irrigation schemes made more resilient to climate change and drip/sprinkler irrigation

**Results Area Type**

Adaptation

**Outcome Name**

**Output Name (under the afore-mentioned outcome)**

Output 2. Integrate climate change risks into water and land management practices that affect smallholders

Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.

**Indicator Name**

2.5. Number of hectares made more stable through SLM practices, to the impacts of rainfall variability and related landslides

**Unit**

hectare

**Baseline**

0

**Current Value**

230.33

**Mid-term Target**

1000

**Final Target**

2380

**Remarks (including changes, if any)**

Farmers and districts prefer land terracing over other technology. More awareness and advocacy is needed to sensitize on effectiveness of other SLM interventions to curtail erosions and for slope stability.

Note:

Current value: 230.33 ha of farmland are rehabilitated and made stable through various SLM measures

Midterm target: 1000 ha of farmland slopes made more stable through SLM measures

Final target: 2380 ha of farmland slopes made more stabilize through SLM measures

<b>Results Area Type</b>	<b>Outcome Name</b>		
Adaptation			
<b>Output Name (under the afore-mentioned outcome)</b>			
Output 3. Reduce the risk and impact of climate induced landslides during extreme events that disrupt market access			
<small>Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.</small>			
<b>Indicator Name</b>			
3.1 Number of kilometres of farm roads and geog. connectivity roads that have been climate- proofed through upgrading and slope stabilization, and sections of main road stabilized			
<b>Unit</b>			
km			
<b>Baseline</b>	<b>Current Value</b>	<b>Mid-term Target</b>	<b>Final Target</b>
0	221.5	230	402.46
<b>Remarks (including changes, if any)</b>			
<p>Farm roads: Four farm roads were tendered out, but works are delayed due to covid-19.</p> <p>GC Roads: Surpassed the mid-term project target as Government has accorded high priority to improve road conditions in rural villages (Refer GNHC Co-financing letter – Appendix 1)</p> <p>Note: Current value: Fam road: N/A; GC Roads: 221.5 km</p> <p>Midterm target: 90 km of farm roads / 140 km of GC roads / 1 section of main road</p> <p>Final target: 170.24 km of farm roads / 232.22 km of GC roads / 3 sections of main road</p>			

<b>Results Area Type</b>	<b>Outcome Name</b>		
Adaptation			
<b>Output Name (under the afore-mentioned outcome)</b>			
Output 3. Reduce the risk and impact of climate induced landslides during extreme events that disrupt market access			
<small>Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.</small>			
<b>Indicator Name</b>			
3.2. Level* of integration of climate related information in national disaster loss and damage database			
<b>Unit</b>			
level			
<b>Baseline</b>	<b>Current Value</b>	<b>Mid-term Target</b>	<b>Final Target</b>
1	1	2	4
<b>Remarks (including changes, if any)</b>			
<p>Level will be assessed in 2021 during the review and enhancement of road damage collection methodology, database and related SOPs</p> <p>*Level of integration is based on a scale where 1 = limited to no integration; Level 2 = Impact assessment-based monitoring and documentation is collected and RUGs estimate road damages for farm roads and input into the disaster database; Level 3 = Climate relevant evidence is used to make the economic case for climate resilient road planning; Level 4 = Increased investment in climate resilient road planning options</p>			

<b>Results Area Type</b>	<b>Outcome Name</b>
Please select	A6.0 Increased generation and use of climate information in decision-making



**Output Name (under the afore-mentioned outcome)**

Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.

**Indicator Name**  
6.2 Use of climate information, climate- informed analyses in decision- making in sectors impacted by climate change

**Unit**  
#

Baseline	Current Value	Mid-term Target	Final Target
0	0	3	9

**Remarks (including changes, if any)**  
Assessments for 20 Class-A Agromet station networks and assessment of existing hydromet database are completed, both of which will serve as foundation towards developing products. Products to be available by 2022.

Note:  
Midterm target: 3 tailored products to inform climate- resilient agriculture planning  
Final target: 9 tailored products to inform climate- resilient agriculture planning (1 per dzongkhag, 1 national level)

**Results Area Type**  
Please select

**Outcome Name**  
A6.0 Increased generation and use of climate information in decision-making

**Output Name (under the afore-mentioned outcome)**

Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.

**Indicator Name**  
6.2 Use of climate information, climate- informed analyses in decision- making in sectors impacted by climate change

**Unit**  
#

Baseline	Current Value	Mid-term Target	Final Target
0	0	1	1

**Remarks (including changes, if any)**  
Activity on disaster database on road damage collection methodology and related SOPs for collection and reporting planned in 2021.

Note:  
Midterm target: 1 disaster database for roads enhanced  
Final target: 1 (disaster database for roads enhanced)

**Results Area Type**  
Please select

**Outcome Name**  
A6.0 Increased generation and use of climate information in decision-making

**Output Name (under the afore-mentioned outcome)**

Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.

**Indicator Name**  
6.2 Use of climate information, climate- informed analyses in decision- making in sectors impacted by climate change

**Unit**  
%

Baseline	Current Value	Mid-term Target	Final Target
0	0	20	60

**Remarks (including changes, if any)**

Follow up Impact Surveys are planned in 2021 and 2022 to assess impact such as this. Value will be assessed only after the products are operational and functional

Note:  
 Midterm target: 20% of project beneficiaries receiving advisories, consider them in decision making  
 Final target: 60% of project beneficiaries receiving advisories consider them in decision-making

<b>Results Area Type</b>	<b>Outcome Name</b>		
Please select	A7.0 Strengthened adaptive capacity and reduced exposure to climate risks		
<b>Output Name (under the afore-mentioned outcome)</b>			
Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.			
<b>Indicator Name</b>			
7.1 Use by vulnerable households, communities, businesses and public-sector services of Fund supported tools, instruments, strategies and activities to respond to climate change and variability sectors			
<b>Unit</b>			
%			
<b>Baseline</b>	<b>Current Value</b>	<b>Mid-term Target</b>	<b>Final Target</b>
0	0	10	30
<b>Remarks (including changes, if any)</b>			
Crop yield cannot be assessed immediately. Hence, it will be assessed only after completion of interventions such as irrigation alongside other interventions such as resilient agriculture and SLMs. Value for the target will be assessed in subsequent years during impact surveys			
Note: Midterm target: 10% increased crop yield for 20% of beneficiaries Final target: 30% increase in crop yield for 70% of beneficiaries			

<b>Results Area Type</b>	<b>Outcome Name</b>		
Please select			
<b>Output Name (under the afore-mentioned outcome)</b>			
Output 2. Integrate climate change risks into water and land management practices that affect smallholders			
Please write 'Not Applicable' if the below-mentioned indicator is to be reported directly at the outcome level.			
<b>Indicator Name</b>			
2.4. Number of district level Participatory SLM Action Plan for improved livelihoods			
<b>Unit</b>			
#			
<b>Baseline</b>	<b>Current Value</b>	<b>Mid-term Target</b>	<b>Final Target</b>
0	0	4	8
<b>Remarks (including changes, if any)</b>			
Work on Participatory SLM Action Plan is being continued to assess and design targeted implementation in targeted landscape of districts.			

2.5 Report on changes during implementation (include actual and expected changes)

There are no changes to institutional, management and operational aspects of the project at this point of reporting period.

Describe changes to the project during the reporting period. In particular, the report should cover elements such as change of beneficial ownership structure, management changes of the Accredited Entity, policies and other elements relevant for the project, and any other material change that could influence the overall outcome of the project.

## 2.6 Implementation challenges and lessons learned

**Challenge encountered**

Delay in establishment of PMU

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type** Operational **Impact on the project implementation** Minor/Solved

**Measures adopted**

Interim Project Manager identified at the GNHC and Ministry of Agriculture and Forests

**Lesson learned and other remarks**

PMU was set up on 26th March 2020. Setting up of PMU should have been done before the Inception Workshop.

**Challenge encountered**

Delay in fund release to the project.

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type** Operational **Impact on the project implementation** Minor/Solved

**Measures adopted**

Annual Work Plan (AWP) 2020 drafted and submitted to UNDP/GCF

**Lesson learned and other remarks**

Fund for Q1-Q2 was released only on 18th March 2020- at the start of Q2.

**Challenge encountered**

Delay in incorporation of Budget into RGoB Budgetary system of Fiscal Year

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type** Financial **Impact on the project implementation** Minor/Solved

**Measures adopted**

All budget proposal for RGoB is submitted and presented as the Budget Bills to the Parliament, which is re-viewed and passed by the joint session in February- March. Subsequently, Responsible Parties had to prepare a budget incorporation process in the budgetary system called Multi Year Rolling Budget.

**Lesson learned and other remarks**

- Budget incorporated with MoF for Q1-Q2 of 2020 on the 1st week of April 2020.
- (for Dzongkhags on 1st April 2020.
- Budget incorporated for Department of Agriculture (DoA) on 2nd April 2020.
- Budget incorporated for NCHM on 6th April 2020)

**Challenge encountered**

Project commencement and implementation in middle of pandemic caused delay in import and delivery of agriculture inputs and materials due to nationwide lockdown and limited trade

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type**

Procurement

**Impact on the project implementation**

Moderate

**Measures adopted**

Agricultural inputs and materials were enlisted under RGoB's import list of essential items

**Lesson learned and other remarks**

In times of pandemic, Project risks need to be communicated to government for their sup-port. Periodic assessment and follow up with partners proved very useful.

**Challenge encountered**

Due to Covid-19 pandemic, capacity buildings (training, workshop, meeting, consultation) and engagement of inter-national consultants/experts were affected.

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type**

Operational

**Impact on the project implementation**

Moderate

**Measures adopted**

Conducted meetings/workshops in smaller groups and virtual meetings were frequently conducted and used to constantly discuss and keep activities on the track.

**Lesson learned and other remarks**

Regular virtual communication with stakeholders is key to how project effectively deal with and manage and mitigate the issues/challenges the pandemic presents.

**Challenge encountered**

Lack of technical skills of district engineers on climate smart irrigation development

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type**

Operational

**Impact on the project implementation**

Moderate

**Measures adopted**

Hands on training of all engineers on planning and design of resilient irrigation schemes conducted as early as Q2 of 2020

**Lesson learned and other remarks**

Hands-on trainings bring together experts and technical people to learn, discuss and agree on practical issues and way forward plan. Such trainings and technical capacity enhancement are important.

**Challenge encountered**

Delay in conducting field investigations due to travel restriction for the foreign workers/experts

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type**

Operational

**Impact on the project implementation**

Moderate

**Measures adopted**

Field visit and investigation post-poned to March-April 2021 and no-cost extension of contract granted to International Consultants Firm

**Lesson learned and other remarks**

Given the uncertainty posed by COVID-19 situation, the best way forward was to dis-cuss and agree to have no cost contract extension.

**Challenge encountered**

The tendered amount for civil works (irrigation) exceeds the initial budget allocation in Pro-ject Document

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type**  **Impact on the project implementation**

**Measures adopted**

Survey and Design for all schemes planned for completion by 2021 so that analysis can be done to assess resources complementation

**Lesson learned and other remarks**

Future project should have certain portion allocated as contingency fund so that any percentage of deviation in overall cost during implemen-tation can be absorbed

**Challenge encountered**

Difficulty in availing services of project officials in the field, particularly during two COVID lockdown period due to their engagement in COVID Duty

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type**  **Impact on the project implementation**

**Measures adopted**

Constant follow-up

**Lesson learned and other remarks**

More follow up and communi-cation channels are needed

**Challenge encountered**

Slight delay in irrigation design and implementation due to lack of Irrigation Design Specialist and surveyors applying for the position

Describe the challenge faced during the last twelve (12) months of implementation that may result in a change to the scope and/or timing of the project; please provide a description and how they have impacted the implementation period and final targets.

**Challenge type**  **Impact on the project implementation**

**Measures adopted**

Engaged the irrigation experts and focal point of the Agriculture Engineering Division of the Agriculture Ministry

**Lesson learned and other remarks**

Constant follow up and partnership

**Confirmation and Acknowledgement of Information \***

\* This is a required question to submit section 2 of the Annual Performance Report (APR).

The accredited entity hereby confirms that the information provided in section 2 is complete and ready for submission.

## Section3:FinancialInformation

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# Section 3: Financial Information

Please note that this is section 3 of the six Annual Performance Report (APR) sections. APR will be considered valid only after all the six sections and the additional section on COVID-19 are filled with relevant details.

## 3.1 Approved Budget for entire project period as per FAA

Currency

USD

### GCF Funding (Equity)

### GCF Funding (Grants)

25,347,194

### GCF Funding (Guarantees)

### GCF Funding (In-kind)

### GCF Funding (Loans)

### GCF Funding (Results-Based Payment)

### 3.1.1 Total GCF Funding

25,347,194

Please confirm if the afore-mentioned values are different as per your knowledge.

No differences to be reported.

## 3.2 Co-financing

Currency

USD

### Co-financing (Equity)

### Co-financing (Grants)

22,824,000

### Co-financing (Guarantees)

### Co-financing (In-kind)

9,844,000

### Co-financing (Loans)

### Co-financing (Results-Based Payment)

### 3.2.1 Total Co-financing

32,668,000

Please confirm the afore-mentioned values are different as per your knowledge.

No differences to be reported.

**3.3 Disbursements Details (Cumulative to this reporting period)**

**3.3.1 Total GCF Disbursement**

3,096,334

**Currency**

USD

**GCF Equity Disbursement**

**GCF Grants Disbursement**

3,096,334

**GCF Guarantees Disbursement**

**GCF In-kind Disbursement**

**GCF Loans Disbursement**

**GCF Results-Based Payment Disbursement**

**Please confirm the afore-mentioned values are different as per your knowledge.**

No differences to be reported.

**3.3.2 Co-Financing Disbursement**

10,048,475.3

**Choose currency**

USD

Provide the cumulative amount of disbursements from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

**3.3.3 Total Project Disbursement**

13,144,809.3

**Choose currency**

USD

Provide the cumulative amount of disbursements from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

**Please provide comments on sub-section 3.3, if any.**

## 3.4 Expenditure details (Cumulative to this reporting period)

Choose currency

USD

## GCF Equity Expenditures

Provide the cumulative amount of expenditures from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

## GCF Grants Expenditures

2,330,327.72

Provide the cumulative amount of expenditures from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

## GCF Guarantees Expenditures

Provide the cumulative amount of expenditures from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

## GCF Loans Expenditures

Provide the cumulative amount of expenditures from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

## 3.4.1 GCF Expenditures

2,330,327.72

Provide the cumulative amount of expenditures from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

## 3.4.2 Co-financing Expenditures

10,048,475.3

Provide the cumulative amount of expenditures from the start of implementation to the end of this reporting period. Indicate '0' if no amount is disbursed yet.

## 3.4.3 Total Project Expenditures

Please provide comments on sub-section 3.4, if any.

3.4.3 total project expenditures is incorrect - the "1" at the end should be removed

## 3.5 Investment &amp; Other Income (Cumulative to this reporting period)

## Reporting Level for investment

Please select the second option 'Accredited Entity Portfolio Level' only if AEs have more than one project where all GCF funds are held in a consolidated

GCF Special Account.

- Project Level
- Accredited Entity Portfolio Level

Choose currency

USD

## Accredited Entity Portfolio Level Investment &amp; Other Income

Please provide comments on sub-section 3.5, if any.

Please see AE Portfolio Level report

## 3.6 Report on AE fees (Cumulative to this reporting period)

## Reporting Level for AE fees

Please select the second option 'Accredited Entity Portfolio Level' only if AEs have more than one project where all GCF funds are held in a consolidated

GCF Special Account.

- Project Level
- Accredited Entity Portfolio Level

Choose currency

Please select

## Accredited Entity Portfolio Level AE Fees

**Please provide comments on sub-section 3.6, if any.**

Please see AE Portfolio Level report

### 3.7 Annual Financial Performance Report

**Please download the Financial Performance Report Template in Excel.**

[Financial Performance Report Template](#)

This sub-section 3.7 is not applicable for REDD+ Results-Based Payments Projects. Please provide a separate 'Financial Progress Details' in Section 6.

**Please attach the Annual Financial Performance Report here.**

Copy of Bhutan\_5777\_APR\_2020\_SECTION-3\_cleared by \_DP\_ MPSA 03Feb2021.xlsx

**Please provide comments on the attachment.**

#### **Confirmation and Acknowledgement of Information \***

\* This is a required question to submit section 3 of the Annual Performance Report (APR).

The accredited entity hereby confirms that the information provided in section 3 is complete and ready for submission.