Midterm Review Report

January 2017

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| **Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions**  **UNDP PIMS ID: 4760**  **GEF Project ID: 4976** |

Country : (BHU) Bhutan

Region : South Asia

Focal Area : Climate Change

GEF Agency : United Nations Development Program [UNDP]

Executing Partner : National Environment Commission Secretariat

Implementing Partners: Gross National Happiness Commission, Ministry of Economic Affairs, Ministry of Works and Human Settlement, Ministry of Home and Cultural Affairs, Ministry of Agriculture and Forests, Phuentsholing Thromde, Mongar Municipality, Tarayana Foundation

Project Time frame : 01-01-2014 to 31-12-2017

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The report summarizes the key lessons from a mid-term review undertaken from 14th November to 29th November in Bhutan. Executed by UNDP in association with National Environmental Commission Secretariat

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**Acronyms and Abbreviations**

ABI Association of Bhutanese Industries

AWS Automated Weather Station

AWLS Automated Water Level Station

AWP Annual Work Plan

CBDRM Community Based Disaster Risk Management

CBO Community Based Organizations

CC Climate Change

CD Capacity Development

CCA Climate Change Adaptation

CSO Civil Society Organization

DfID Government of United Kingdom’s Department for International Development

DDM Department of Disaster Management (MoHCA)

DES Department of Engineering Services (MoWHS)

DGM Department of Geology and Mines (MoEA)

DHMS Department of Hydro-Meteorological Services (MoEA)

DM Disaster Management

DoFPS Department of Forests and Park Services (MoAF)

DoR Department of Roads (MoWHS)

DRR Disaster Risk Reduction

EFRC Environment-friendly Road Construction

FEMD Flood Engineering and Management Division (DES, MoWHS)

FFMP Forest Fire Management Programme (DoFPS, MoAF)

FYP Five Year Plan

GDP Gross Domestic Product

GEF Global Environment Facility

GIS Geographic Information System

GLOF Glacial Lake Outburst Flood

GNH Gross National Happiness

GNHC Gross National Happiness Commission

IPs Implementation Partners

KI Key Informants

M&E Monitoring and Evaluation

MoAF Ministry of Agriculture and Forests (RGoB)

MoEA Ministry of Economic Affairs (RGoB)

MoHCA Ministry of Home and Cultural Affairs (RGoB)

MoWHS Ministry of Works and Human Settlement (RGoB)

OPML Oxford Policy Management Limited

# Project Information Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Title** | Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions | | | |
| UNDP Project ID (PIMS #): | 4760 | PIF Approval Date: | | 25-06-2012 |
| GEF Project ID (PMIS #): | 4976 | CEO Endorsement Date: | | 24-03-2014 |
| ATLAS Business Unit, Award #, Project ID: | 00076998  00088072 | Project Document (ProDoc) Signature Date (date project began): | | 18 -04- 2014 |
| Country: | Bhutan | Date project manager hired: | | 01-01-2012 |
| Region: | South Asia | Inception Workshop date: | | 12-06- 2014 |
| Focal Area: | Climate Change | Midterm Review completion date: | | 06-12-2016 |
| GEF Focal Area Strategic Objective: | 1. Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change;  2. Strengthen institutional and technical capacities for effective climate change adaptation; and  3. Integrate climate change adaptation into relevant policies, plans and associated processes. | Planned closing date: | | 17-03-2018 |
| Trust Fund: | NA | If revised, proposed op. closing date: | | NA |
| Executing Agency/ Implementing Partner: | National Environment Commission Secretariat | | | |
| Other execution partners: | Gross National Happiness Commission, Ministry of Economic Affairs, Ministry of Works and Human Settlement, Ministry of Home and Cultural Affairs, Ministry of Agriculture and Forests, Phuentsholing Thromde, Mongar Municipality, Tarayana Foundation | | | |
| **Project Financing** | *at CEO endorsement (US$)* | | *at Midterm Review (US$)* | |
| [1] GEF financing: | 11,491,200 | | 2,882,867 | |
| [2] UNDP contribution: | N.A | | N.A | |
| [3] Government: | 48,829,829 | | N.A | |
| [4] Other partners: | 5,710,000 | |  | |
| [5] Total co-financing [2 + 3 + 4]: | 54,539,829 | | 20.19 Million | |
| PROJECT TOTAL COSTS [1 + 5] | 66,031,029 | | 23,072,867\* | |

Table: 1 MTR Ratings & Achievement Summary

|  |  |  |
| --- | --- | --- |
| **Measure** | **MTR Rating** | **Achievement Description** |
| **Project Strategy** | **Not Rated** | Project objectives are in line with the GEF Focal Area objectives augmenting disaster resilience, institutional capacities and mainstreaming adaptation into policies and governance in Bhutan. Logframe assumptions reflect national priorities accurately. |
| **Progress Towards Results** | Objective Achievement **Rating: 5/6**  **Satisfactory** | The Project is on track to achieve the end-of-project objectives. Constraints such as minor delays in land acquisition for installation of hydro-met infrastructure, drinking water supply lines in flood prone areas in Mongar, capacity constraints of implementing staff are to be addressed. The full extent of achievement cannot be measured in the mid-term timeline. Our review suggests a high degree of achievement across various outcomes. Corrective measures are suggested where necessary |
| Outcome 1 Achievement **Rating: 5/6**  **Satisfactory** | Flood buffering, river bank protection and slope stabilization work in PIA are progressing per project timelines and are expected to protect the PIA from risks from climate-induced floods and landslides, as explicitly laid out in the Outcome statement. Project outputs 1.1, 1.2, 1.3 are aligned with local and national priorities, and are on track to achieve impacts envisaged. However, progress in achieving output 1.4 against planned timelines is constrained by data paucity and limited access to high resolution datasets. Activities 1.1.1, 1.1.2, 1.1.3, 1.2.1, 1.2.2, 1.2.3, 1.2.4, were evaluated and found progressing satisfactorily per timelines. |
| Outcome 2 Achievement **Rating: 5/6**  **Satisfactory** | Project has demonstrated high impact stakeholder engagement, community mobilization initiatives and last mile service delivery in remote locations within budgeted costs and resources, thus fulfilling the project outcome of strengthened community resilience to climate-induced risks. Delays in approval of Disaster Management Plans have slowed down the pace of CBDRM initiatives in the project. Activities 2.1.1 and 2.1.2 were progressing in line with project timelines, though capacity and quality control constraints and seasonal floods in the catchment area for drinking water supply project were found to have impaired the progress of 2.1.2. Quality control decisions in the project have the potential to impact not only the project investments and sustainability in the medium to long run but also create additional negative externalities such as health and water quality concerns (e.g. decision to use wrought iron casing versus stainless steel casing for submersible pump in the storage tanks in the municipality). Activities 2.1.5, 2.1.6. 2.1.7, 2.1.8, and 2.1.9 were found to have been fully implemented and generating additional demand. The introduction of an Arc-SWAT model to help local governments prepare community-level water resources inventory is yet to be completed. Participatory efforts to map the water resource inventory has been completed in Mongar municipality. Overlaying this traditional, participatory knowledge with model projections on vulnerability scenarios from Arc-SWAT will help better preparedness.  The project has successfully promoted CBDRM concepts up to the Dzongkhag level community institutions. The DM institution in Chukha has largely been dysfunctional due to lack of funds for implementation. CBDRM institutions organized under various platforms have also shown varying levels of capacities and enthusiasm. In contrast to the DM institutions at Chukha under DDM, the Village Level Forest Fire Management Group under Forest and Parks services and Tarayana-led community institutions have been pro-actively involved in planning and replicating project results. |
| Outcome 3 Achievement **Rating: 5/6**  **Satisfactory** | The project has made strategic investments in Bhutan’s Disaster Management abilities. It is in the right process of successfully imparting capabilities for the departments of DHMS, DGM and NECS in producing and sharing relevant information about climate-related risks and threats across climate-sensitive sectors. Capacity building efforts for the staff on predictive modeling, early warning systems and developing appropriate weather products have led to significant competitiveness in departments. A National Weather and Flood Forecasting and Warning Center (NWFFWC) has been established within DHMS to strengthen the capacity of weather forecasting and warning. A blue print to integrate data products from different forecasting platforms needs to be planned and implemented. |
| **Project Implementation & Adaptive Management** | **Rating: 5/6**  **Satisfactory** | Delays in rolling out the project in 2014 has the potential to impact achievement of objectives outlined. Robust implementation and adaptive management practices have been followed in the project. There is a clear focus on results and the stakeholders plan and implement activities with a clear understanding of the work plan targets. Reporting is satisfactory and our interactions with the stakeholders show that they acknowledge reports and review meetings as the medium to convey their concerns and progress to the project management. The minutes of the meetings are accurately documented and help trace the agenda and discussions.  Procurement, was noted as an area of concern by implementing partners. Project leaders in Mongar expressed their inability to ensure QC on supplies and materials procured for drinking water supply scheme. Capacity constraints at service provider/ contractor’s end also has been an issue in Mongar that has led to delaying the progress of drinking water scheme. There is a potential to transfer successful/best procurement practices (example Phuentsholing) and contractor-client management practices to other areas within the project.  The project has some stunning examples of sustainable, stakeholder-driven CBDRM and Water Infrastructure programs. PMU has been successful in networking and functioning seamlessly within and between various government departments to coordinate the planning and execution of the program. The PMU was looked at as a transparent and participative facilitator by stakeholders. However, varying capacities at Dzongkhag and Thromde levels pose a threat to the project success in the long run. |
| **Sustainability** | **Rating: 3/4**  **Moderately Likely** | Project activities have been able to create and sustain strong community level institutions including the VLFFMGs, Village level Water Users Groups, Joint Liability Groups, and generate awareness through constant dialogues with the end-users and beneficiaries. Stakeholder capacity building and institutional strengthening through the project are expected to meet the targets. Strong government buy-in is evident across all work streams.  Capacity constraints exist at the lowest levels in implementation. This is essential for the longevity of project infrastructure (e.g. drinking water scheme in Mongar). Appropriate, local level capacity building initiatives for lower-level staff may be designed. In Phuentsholing, the sustainability of interventions is also undermined by theft and vandalism by villagers from across the border.  Strong stakeholder engagement components in the project has ensured socio-economic, institutional and financial sustainability. Tracking committed co-financing and blending government-CSO partnerships in last-mile delivery of CBDRM services will ensure increased sustainability. |

Project progress summary

**The project is successfully supporting local level adaptation to climate-induced disasters through establishing early warning systems in some of the remotest districts in Bhutan.** There is good evidence that it has helped further an interest and awareness in disaster management at local level. The project is on track to achieve all outputs and outcomes as envisaged in the results based framework. Project objectives are aligned with national and provincial priorities in disaster management and institutional development.

Implementation delays in 2014 have the potential to adversely impact progress towards results, specifically for Outcome 1, and Outcome 3 where procurement delays and seasonality factors (monsoons) could play a cascading effect.

The project offers an innovative approach to deliver last-mile services in water sector and CBDRM through top-down and bottom-up models of stakeholder engagement. Inherent demand generated by stakeholders, demand for capacity building initiatives, Institutional compatibility with national priorities, High level of output-ownership in DRM and Early Warning Systems, Strategic investments in transboundary disaster risk management and a broad-based approach engaging civil society, CBOs and government departments indicate the high level of output-ownership in the project. Significant threats in the form of capacity issues (at Dzongkhag level) and quality control constraints need to be addressed, going forward.

Summary of conclusion and recommendations

Whilst judging the success of NAPA II[[1]](#footnote-2) is beyond the scope of this MTR, the project’s strengths in implementing community level disaster management activities which reach stakeholders is underlined. The project is on track in achieving the end-of-project objectives and realizing the full impact of investments made by GEF and IPs.

The project is aligned well with national and local priorities, but will need management response mechanisms to handle demands for engagement and scaling up from local administrations and stakeholders. The key conclusions we wish to highlight from the MTR are:

**C1: Community Engagement in the project has led to positive sustainability outcomes**

Strong community engagement has shown positive spin-offs in project sites. This has included among others: Increased school attendance for kids, reduced drop-out rates of girls, improved health status, reduced drudgery for women and increased collective aspirations. Investments in community engagement has also led to realization of co-benefits in job creation and additional days of labor/livelihoods support. **Our review shows that approximately 60% of the savings from thrift/self-help groups promoted under the work package are utilized for creating livelihood avenues**.

**C2: Dedicated Quality Control and Capacities at Dzongkhag level critical to project success and sustainability**

Varying levels of capacities and quality of deliverables may undermine the impact of PROJECT deliverables. The absence of QC systems at project level may also, as pointed out in the barriers analysis, lead to cost-overruns and resource wastage. PMU data should be able to capture quality details and facilitate TAG support, with PMU oversight, as required. Alternatively, TAG supervision of weaker Dzongkhags may also be explored.

Procurement systems are operating to support delivery at the community level, but procurement risks remain high, and Phase II will need to include greater experience sharing around procurement, including effective internal and external audit and validation systems.

**C3: Scaling up activities for urban DM offers opportunity to explore non-climate finance**

In the absence of a mechanism for tracking co-finance, it is advisable to support project expansion in Gewog through government revenues or international/domestic financing. However, the efforts till date were focused largely on leveraging climate financing. A new approach that focuses on urban development and green growth in an urban context can be explored. This can potentially address major disaster events and economic shocks [Resilient Cities Framework]. Bilateral funding, employing an Economic Corridor Approach, can also be explored in Jaigaon-Gewog border. Potentially increases the role of formal and informal institutions in Transboundary DM.

**C4: Internal QC systems as well as pathways to share Contract-Procurement Management Good Practices must be activated and strengthened**

Trilateral consultation sessions with Consultant-RGoB-Contractor must be standardized and the consultant must avail his services till the on-boarding of the contractor is completed. Insisting on a standardized monitoring and reporting framework for contractors can help the project managers and IPs achieve project objectives and forecast delays.

**C5: No Cost Extension of the project must be sought and utilized for outreach and knowledge management to realize the full impact of the program**

Project Extension, if available, could be best invested in KM and Outreach (Impacts for Business Development). This can also help the PMU conserve the project deadlines and let spill only a minimal part of the extension into implementation.

**C6: Work packages under THE PROJECT are best placed to offer bankable individual concepts for leveraging national and international climate finance**

Project results can help create a National Adaptation Strategy for enhanced access to Adaptation Fund/Multi-lateral financing resources. Projectising successful models from the NAPA-II project could target Enhanced Direct Access from sources such as GCF. Significant amounts of capacities required for Climate finance readiness under GCF.

Our key recommendations from the findings presented in the section above are:

Table 2: Summary of Recommendations

|  |  |  |
| --- | --- | --- |
| **R#** | Recommendations | Entity Responsible |
| **R1** | **Formalize and engage cross-border institutions in DM** to reduce risks and ensure successful achievement of Outcome 1.  Possible avenues of engagement include:   * Community engagement in trans-boundary DM through Friendship Associations and informal, CSO level dialogues in Gewog Thromde * Transboundary business associations * Broadening of agenda of current dialogue mechanisms | **PMU, UNDP, RGoB** |
| **R2** | **Regularly review and report the risks to investments and assets. Revise indicator to capture capacity addition on flood protection measures.**  This can help ensure that assets created by the project remain stable and functional in the face of recurring land movements and climate-induced risks.   * Land movements, if left unchecked, near *Rinchending Goenpa* has the potential to impact slope stabilization works undertaken by the project downstream on *Om Chu*. * Scientific dredging to be planned and implemented in PIA for flood plain buffering * Capacities of Dzongkhag level CBDM institutions can be built to monitor and report risks such as land movements near project areas * Revise indicator from 30% reduction in dredging costs to *Flood protection measures in place protecting lives and safeguarding economic assets from Barsachu flooding*. | **PMU, DDM, Phuentsholing Thromde, Mongar** |
| **R3** | **Harmonize work streams for maximizing impact of project investments**  This can help integration and replication for scaling up the project impacts. For example, the community water harvesting and storage model under Outputs 2.1.5 – 2.1.10 have emerged as a replicable model that combines risk reduction, and water harvesting with community institutions for DM and livelihoods support.   * Outputs 3.1 and Output 1.2 by way of integrating flood plain buffering with AWLS sensor installation can yield better impacts. * Capacity building and mock-drills be offered to communities along the Pasakha river (PIA) for optimal outputs (1.2) | **PMU, NEC Secretariat, Implementing partners** |
| **R4** | **Promote hybrid models of last-mile service delivery through strong stakeholder linkages.**   * CSO-based Last Mile Service Delivery models be explored for optimizing impacts (reach and penetration of gov. sponsored programs under Outcome 2. | **PMU, NEC Secretariat** |
| **R5** | **Measure and quantify impacts of community engagement for capturing co-benefits of the intervention and further scaling up.**   * Co-benefits of water harvesting interventions such as reduction in drudgery and economic value generated for women, labor, female education enrollment, health impacts, ecosystem services, capital and credit availability and financial literacy be captured for impact assessments of Outcome 2 | **PMU, UNDP, Tarayana Foundation** |
| **R6** | **Share and promote adoption of good practices in Contract and Procurement**  Progress under the work packages for activities 2.1.1, 2.1.2, and 2.1.3 were adversely impacted by quality control issues with contractor/service provider being unable to deliver outputs as promised.   * Our review of the contractor-client interaction in Mongar as a part of the review of outputs 2.1.1.-2.1.3 shows the possibility of improvement in the current relationships and optimize the impacts of the intervention. * Good practices such as tripartite review meetings between client, contractor and consultants in Phuentsholing has helped iron out constraints in time-sensitive civil construction works * Opportunities to empanel, and award contracts to qualified contractors meeting QA standards in the project could be explored, if complying with RGoB procurement protocols. * As an example, community members in the PIA flood plains had suggestions on the required height of the wall for effective flood proofing. A feedback loop integrating community-consultants-contractors with PMU can ensure peer scrutiny, community audit and QC along with necessary buy-in. | **PMU, Implementing partners, Consortium of consultants and contractors** |
| **R7** | **Develop a Knowledge Management Strategy**  The KM strategy will help identify avenues for learning, transfer of lessons and capacity building in the project under Outcome 2   * KM Strategy will assist the operationalization of awareness generation and capacity building activities under various Outcomes * It can further ensure the sustainability and adaptability of program learnings and benefit future projects * The project generates considerable knowledge at various levels (example: training programs undertaken by officials at ADPC, RIMES etc.). Consolidating the knowledge accessed and shared under the project and converting them to appropriate products incorporating local knowledge can help develop a customized, local training program for RGoB. | **PMU, NEC Secretariat, All implementing partners** |
| **R8** | **Adopt a CBDR approach in Capacity building based on a Training Needs Analysis**  A project as complex as this would generate considerable demand for capacity building across work streams. However, it is also very pertinent to identify the ‘responsibilities and respective capabilities’ for customizing targeted sections.   * Capacity building of Dzongkhag level officials (Project Management) and field level staff (technical and O&M) to be taken up on priority and integrated into Water Sector interventions (Outputs 2.1.1-2.1.5). Capacity building initiatives be linked to Training Needs Assessment outputs * Capacity is being built for DHMS and DGM on Early Warning Systems and weather forecasting. Considering the multiple sectors, they cater to and the range of forecasting products they must develop, a **Weather and Climate Services blue print** can be prepared. * Capacity building at national level for line departments (DHMS, DGM) be undertaken with the NEOC and NWFFWC to emphasize on convergence of EWS products originating from different projects (e.g. GLOF alerts, Flood alerts, Storm-Rainfall alerts) * End user studies be undertaken to understand the product requirements (seasonal forecasts, medium range and long range forecasts) for different user categories. Trainee feedback and client feedback must for QC. | **PMU, UNDP, NEC Secretariat, All implementing partners** |
| **R9** | **Request No Cost Extension (up to six months) for the project**   * A No Cost Extension of the project is recommended. This will help to compensate for the delays in inception stage and help achieve the outputs and outcomes outlined in the project. * The No-Cost-Extension may be best utilized to capture lessons and impacts for sharing and dissemination. | **UNDP** |

# Introduction

## Purpose of the Review

Oxford Policy Management Limited [OPML] was contracted by UNDP for UNDP-GEF Midterm Review (MTR) of the project titled Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions (PIMS 4760) implemented through the National Environment Commission Secretariat, RGoB. The project started on the 18th April, 2014 and is in its third year of implementation.

This independent review was conducted between 14th – 29th November 2016. The purpose was to assess the performance of the project and offer recommendations for Phase II. The Review examined aspects of the Program Strategy, Progress towards End-of-project goals, Implementation and Management arrangements and Sustainability of the project. The MTR intends to assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made to set the project on-track to achieve its intended results. The MTR also attempts to review the project’s strategy, its risks to sustainability and the various barriers and threats to project progress with their likely impacts.

## Audience for the review

There are three key audiences for this review: 1) the Core PROJECT stakeholders: The Royal Government of Bhutan, UNDP, and GEF; 2) stakeholders of PROJECT implementation and 3) other organizations engaged or interested in NAPA implementation in Bhutan or local level adaptation/disaster resilience programmes elsewhere in the world.

This report is primarily written for the first two audiences, and is written assuming some knowledge of the context and the programme. We hope the stakeholders in the third category who have some knowledge of THE PROJECT or have read other introductory documents will also find the report useful.

## Scope & Methodology

The field work for the review was undertaken over a period of two-weeks from 14th to 28th November 2016 to assess progress of the project operations, using mixed methods. The review assessed the program strategy, progress towards end goals, implementation and management arrangements and sustainability as established in the TORs. The review intends to draw conclusions from this assessment to inform the final phase of the programme.

The recommendations are linked to the evidence and observations we gathered from the field work and interactions with Key Informants (KI). However, we will restrict our recommendations to those based on direct observations or inferences drawing on our experience. We will avoid straying into wider views about the program. In order to support the review process, we have constructed the Theory of Change (please refer to Figure 1: Theory of change proposed for the MTR, page 21), using the following parameters:

This is intended to be our best understanding of the Theory of Change that was intended when the project was designed, but allow for updated thinking during the project. This means:

1. It draws primarily on the UNDP-NAPA Project Document for understanding of the original intent for the project; although
2. We have drawn on the updated PIRs for the project as we assume that had a Theory of Change been in place, this would also have been updated;
3. We have sought to keep this simple and based on evidence from the documents[[2]](#footnote-3). This is not an attempt to design what we think the optimal Theory of Change should have been, but to reflect what the documents state was intended.

UNDP Bhutan was requested to provide feedback on whether this Theory of Change reflects their understanding of the intent behind the programme in the inception report submitted on 14th November 2016. There are currently several causal linkages and assumptions which could be better articulated, but we have not sought to add these in because to do so would depart from the approach of reflecting the project intent.

The review began with a kick-off meeting chaired by UNDP-DRR and CO in Thimphu. An initial consultative workshop was organized by the PMU in Thimphu on 15th November with all Implementing Partners (IPs) outlining the progress of work streams. A detailed itinerary for the evaluation was then drawn up and contacts from all stakeholders was secured. The methodology broadly constituted the following steps:

The MTR was carried out by an international consultant; Ajith Radhakrishnan from Oxford Policy Management Limited (OPML), with the support of a national counterpart; Ms. Tshering Lhamtshok and an international advisor on disaster risk management; Ms. Zoe Scott (OPML). The following activities were completed as a part of the MTR:

1. A desk review and selection of suitable review approaches for the program, which was followed by a discussion with in-house survey and quantitative experts to firm up the analyses.
2. A review of project documents and information material shared by the Project Manager, Mr. Ugyen Dorji.

Field visits to project location from 14th November to 28th November 2016 for KI interviews and presentation of preliminary findings to the board.

Figure 1: Theory of Change proposed for the MTR

Inputs

Outputs

RGoB (NEC) Co-financing

Outcomes

Impact

UNDP Technical assistance for institutional capacity building and national coordination for implementation

* Integrated Flood Management and Watershed Management
* Integrated Slope Stabilization measures
* Integrated Geo-hazard mapping and vulnerability analyses
* Evidence based Landslide forecasting
* Climate Resilient Water Management Strategy designed and executed
* Participatory, community-level water management planning and implementation
* Establishment of local disaster management agencies and capacity building completed

Evidence based policy making supported

* Enhanced quality, availability and transfer of real-time climate data
* Increased effectiveness of National Weather and Flood Forecasting and Warning Center (NWFFWC)
* Better access to evidences for policy makers and development professionals

Risk from climate-induced floods and landslides reduced

Community resilience to climate-induced disaster risks strengthened

Relevant information about climate-related risks and threats shared across devpt sector

Increased knowledge of risks

Local adaptation strategy

Early warning systems

Better district and village planning capacity

Good quality local institutions

Better local delivery

Increased understanding of climate variability

Better services provided under weather services

Policies embed evidences

Better local implementation and management

**ASSUMPTIONS**

* Climate induced disaster risk management remains government priority
* Local Governments and administrations have adequate existing capacity to build upon for disaster management
* Government funding is available to sustain and consolidate the interventions after the conclusion of the project
* Service providers exist and are available with the capacity to develop Met advisories
* RGoB structures can manage programme funds with acceptable level of fiduciary risk with UNDP support

Government of Bhutan staff at centre and local levels

## Structure of the MTR report

The report is divided into four major section. Section one summarizes the project with respect to the intended audience, major findings, scoping and methodology. In the second section, the project is juxtaposed with the contextual settings and discusses the problems that the project sets out to address, the strategy adopted, operationalization arrangements and key milestones and stakeholders that the project intends to engage with. In the third section, key findings from the project are summarized and presented under four major metrics; project strategy, progress towards results, project implementation and adaptive management and sustainability. The final section presents a conclusion and summary of the key recommendations. A detailed annexure with case studies from Mongar, Khengkhar and Phuentsholing Thromde on adaptive management, stakeholder engagement strategies and quality control is included.

* 1. Ethics

The review was conducted in accordance with the UNEG Ethical Guidelines for Evaluators, and the review team had signed the Evaluation Consultant Code of Conduct Agreement form (Annex 8). The MTR team ensures the anonymity and confidentiality of individuals who were interviewed and surveyed. In respect to the UN Declaration of Human Rights, results are presented in a manner that clearly respects stakeholders’ dignity and self-worth.

* 1. Audit Trail

To document an “audit trail” of the evaluation process, review comments to the draft report are compiled along with responses from the evaluator and documented in review mode for version 2.0. Relevant modifications to the report have been incorporated into the current version of the MTR report.

* 1. Limitations

The review was carried out over the period of November 2016, including preparatory activities, field mission, desk review and completion of the report, according to the guidelines outlined in the Terms of Reference.

There were no limitations with respect to language for review of written documentation. Interviews were held in Bhutanese and English and all project documentation is prepared in English. The evaluator was assisted by an interpreter during some of the group interviews during the field visits. Interviews were made with the key stakeholders during the mission, and with a representative number of partner agencies who have been appointed by the project. The evaluator feels that the information obtained during the desk review and MTR mission phases of the review is sufficiently representative.

## Rating Scales

The prescribed ratings from ToR was used for evaluating the findings.

Table 3: Scores and Scales used for Rating

|  |  |  |
| --- | --- | --- |
| **Ratings for Progress Towards Results:** (one rating for each outcome and for the objective) | | |
| 6 | Highly Satisfactory (HS) | The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as “good practice”. |
| 5 | Satisfactory (S) | The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings. |
| 4 | Moderately Satisfactory (MS) | The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings. |
| 3 | Moderately Unsatisfactory (HU) | The objective/outcome is expected to achieve its end-of-project targets with major shortcomings. |
| 2 | Unsatisfactory (U) | The objective/outcome is expected not to achieve most of its end-of-project targets. |
| 1 | Highly Unsatisfactory (HU) | The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets. |
| **Ratings for Project Implementation & Adaptive Management:** (one overall rating) | | |
| 6 | Highly Satisfactory (HS) | Implementation of all seven components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as “good practice”. |
| 5 | Satisfactory (S) | Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action. |
| 4 | Moderately Satisfactory (MS) | Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action. |
| 3 | Moderately Unsatisfactory (MU) | Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action. |
| 2 | Unsatisfactory (U) | Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management. |
| 1 | Highly Unsatisfactory (HU) | Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management. |
| **Ratings for Sustainability:** (one overall rating) | | |
| 4 | Likely (L) | Negligible risks to sustainability, with key outcomes on track to be achieved by the project’s closure and expected to continue into the foreseeable future |
| 3 | Moderately Likely (ML) | Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review |
| 2 | Moderately Unlikely (MU) | Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on |
| 1 | Unlikely (U) | Severe risks that project outcomes as well as key outputs will not be sustained |

# Project Description

## Development Context

The project objective is therefore to: “enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards to reduce potential losses of human lives, national economic infrastructure, livelihoods, and livelihood assets”. Bhutan requires crucial support to counter immediate threats posed by climate change to vital economic infrastructure, as well as to strengthen national capacity for climate change adaptation and developing adaptation alternatives for projected prolonged periods of drought in rural areas and urban centers.

## Problems that the Project Sought to Address

Bhutan is among the countries most vulnerable to climate change in the Asia-Pacific region because of its vulnerable mountain terrain and volatile ecosystems. The country is exposed to multiple hazards, glacial lake outburst floods resulting from glacial melting, flash floods, landslides, windstorms, forest fires, localized changes in rainfall patterns and increasing droughts during dry season. Climate change is projected to significantly magnify the intensity and frequency of these hazards, as has already been evidenced by for example the glacial lake outburst flood of Lugge Tsho in 1994 and more recently the high intensity cyclone Aila which caused major damages in Bhutan in 2009.

The project aims to address the barriers to adaptation that include rickety climate data collection infrastructure, capacity constraints in government systems that limit inter-disciplinary thinking and fragmentation of institutions and policy making processes. The key barriers that need to be addressed for optimization of adaptation impacts include:

* **Basic climate data limitation:** Bhutan’s disaster preparedness hinges around insufficient hydro-meteorological data collection infrastructure. This handicaps the government’s attempts to undertake scenario planning and understand the sectoral impacts of climate change for Bhutan. One of the wider implications of limited hydro-met data availability is the inability for key technical ministries/departments such as the Department of Geology and Mines (DGM) and Flood Engineering and Management Division (FEMD) to integrate climate change risks into the technical assessments these agencies carry out.
* **Limited financial resources for climate change and disaster resilience:** A small economy, limited public funds, and competing needs for other development investments, has resulted in a series of small adaptation investments that are fragmented and piecemeal in nature, compared to the magnitude of adaptation challenges to be addressed. Isolated efforts in adaptation planning and implementation has led to disproportionately higher costs while attempting to address annual accumulation of risks, instead of being able to address the risks of floods with a longer-term timeframe.
* **Limited disaster knowledge and information:** Existing knowledge on hazards, such as landslides and floods or drought, is still based on business-as-usual climate scenario. This is also in part, constrained by the limited capacity to gather information around climate variables. As climate information and the associated capacity to analyze and disseminate it become more widely available, knowledge on both sudden and slow onset disasters will help the government put in place effective contingency plans.
* **Institutional capacity for climate and disaster resilient policy development:** Limited sharing of information between government stakeholders and fragmentation or duplication of roles and responsibilities have led to capacity constraints to address a shared challenge such as climate change. A very low institutional capacity for ‘knowledge management’ hampers evidence based policy and strategy development for addressing climate change more structurally in Bhutan.
* **Capacity constraints in climate resilient local planning for water and disasters management:** Though a decentralized planning and governance infrastructure exists in Bhutan, there is little awareness and understanding about the possible localized impacts of climate change and variability and resulting vulnerabilities. This has also resulted in the lack of information of sector or demographic-specific vulnerability in Bhutan. Coupled with a lack of systems to share risk information, is the capacity constraints in governance that hampers the mainstreaming of climate evidence into policy planning.
* **Lack of understanding of the benefits for ecosystem based adaptation measures:** The lack of proper awareness, basic climate data collection infrastructure and limited capacities have resulted in a knowledge gap on combined ecosystem-based management and water infrastructure development and maintenance solutions. Related to this constraint is a typically low level of awareness among planners and investors of the interdependencies inherent in adaptation.

## Project Description and Strategy

The overarching goal of the project is to **safeguard Bhutan’s key economic development infrastructure, to strengthen resilience against climate-induced water scarcity and in general terms to strengthen national and local capacity for natural disaster response and climate resilience**. This goal is consistent with and underpinned by, several important policies and strategies governing Bhutan’s national development in addition to meeting the GEF adaptation goals of:

* reducing vulnerability to lives, livelihoods, physical assets and natural systems to the adverse effects of climate change;
* strengthening institutional and technical capacities for effective climate change adaptation; and
* integrating climate change adaptation into relevant policies, plans and associated processes.

The project Outcomes address the following key adaptation issues identified by Bhutan:

* Safeguarding Gewog town and Pasakha Industrial Area (PIA) from critical landslides and flash floods while systematizing technical and institutional solutions implemented under the outcome for application nationwide;
* Conducting a water resource inventory and developing adaptation solutions for increased droughts in rural areas as well as Mongar town, introducing innovative technical and development approaches, as well as strengthening local institutions to prepare and respond to climate induced disasters, including forest fires;
* Climate change data captured, analyzed and disseminated for increased resilience of development activities and response to climate induced disaster, through the strengthening of the national hydro met network and early warning system. Overall national capacity for climate change resilience reinforced through strengthened institutional leadership and improved knowledge for climate resilient policy development.

The project leans heavily on relevant policy and vision documents of the Royal Government of Bhutan, such as: National Forest Policy, National Environmental Strategy, Bhutan 2020, Bhutan Water and Vision, National Adaptation Plan, National Disaster Management Strategy and Low Carbon Development Strategy. This ensures that the policy context of the project is endorsed by stakeholders and governments.

This project has been conceived with the objective to enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards to reduce potential losses of human lives, national economic infrastructure, livelihoods and livelihood assets.

**Strategic levers:** At a broader strategic level, the project has built strategic partnerships with RGoB’s National Environment Commission (NEC), established in 1992 and chaired by the Prime Minister. NEC is designated to lead and coordinate all environment and climate change related strategies and activities in the country. Bhutan’s overall national development goals encompass the spirit and purpose of international commitments and focus on poverty reduction, equitable socio-economic development, environmental sustainability, gender equity, good governance, and community participation. By adopting a vulnerability reduction perspective, the project addresses the larger development goals of poverty reduction, environmental sustainability and development.

At the operational and programmatic level, the project is supported by a Technical Advisory Group (TAG). The TAG, is a multi-disciplinary team of technical people from various government agencies and implementing partners, to provide technical advice and support to the project. Such a group is deemed necessary especially given the technical intricacy of various project interventions and that no single agency is self-sufficient in the technical expertise that would be required for guidance in the implementation of these interventions.

A Project Board (PB) has been constituted under the chairmanship of the Government Secretary of the NECS and is made up of senior representatives from all key national implementing agencies and UNDP. The PB plays a critical role in mainstreaming and uptake of project outputs in national policy making. Furthermore, the project timelines are well aligned with the Five-Year Plan timelines which makes it possible to appropriate co-financing and budgetary support as required.

## Implementation Arrangements

**Implementation modality:** The project is implemented for a period of 48 months with an endline of 17th March 2018 and is nationally executed in accordance with the National Execution (NEX) Manual agreed between the UNDP and Royal Government of Bhutan (RGoB). The lead Executing Agency for the Project is the National Environment Commission Secretariat, which has the governmental mandate to coordinate the formulation and implementation of environmental policies and related programmes and strategies.

**Implementing Partners:** The lead Implementing Partner is the NECS, which is primarily responsible and accountable for managing this project; including the governance and evaluation of project interventions, achieving project outputs, and for the effective utilization of available resources. Other responsible partners, with significant roles in project implementation include; The Gross National Happiness Commission, Ministry of Economic Affairs, Ministry of Works and Human Settlement, Ministry of Home and Cultural Affairs, Ministry of Agriculture and Forests, Phuentsholing Thromde, Mongar Municipality, and Tarayana Foundation.

For project implementation monitoring and support a Project Working Group (PWG) was established of which all responsible parties are member. The PWG also coordinated and contributed to project progress reporting of the Project Management Unit (PMU). The National Environment Commission Secretariat hosts the Project Management Unit (PMU). The PMU is responsible for overall coordination with the various national implementing agencies for the delivery of project outputs in a timely and effective manner. It facilitates project-related planning activities such as preparation of annual work plans and overall project monitoring and reporting. PMU comprises of a **Project Director** for operational direction, supervision and management of the project; **Project Manager** for coordination, monitoring and reporting of project activities; **Project Support Officer** for project administration and day-to-day support to project management; and Project Accountant for management of project funds and their delivery to the various national implementing agencies.

## Project Timing and Milestones

Project Implementation Start : 18-04-2014

Closing Date (Original) : 17-03-2018

The Project Manager was appointed in Jan 2012 to lead the overall formulation of the Project during the Project Preparatory Grant Phase and has continued to function as the Project Manager during implementation as well. The project document was signed on 18th of April 2014 after the CEO endorsement on 24th March 2014. The First Project Board Meeting was held on 11th of June 2014, followed by the Project Inception Workshop on 12th of June, 2014.

## Stakeholders

The project has strong engagement with stakeholders from various sections of the society including, but not limited to government organizations and departments, civil society, community leaders, resource use groups and academia. The project document shows a robust analytical framework that evaluated the stakeholder engagement baseline. Prior to commencement of stakeholder discussions, a review was undertaken of existing policies, projects and legal frameworks with relevance to the proposed project as outlined in the approved PIF. **A total of 109 individuals (75 men and 34 women) and 20 industries were consulted during the preparatory phase**.

Table 4: Stakeholder roles and responsibilities

|  |  |  |
| --- | --- | --- |
| Stakeholder | Role | Deliverable |
| National Environment Commission Secretariat | Lead responsible agency and PMU | Output 2.2 Output 3.3 |
| Gross National Happiness Commission Secretariat | Overall delivery and monitoring of GEF/LDCF financing and project implementation. | Cross-sector |
| Gewog Thromde | Implementing partner and Lead responsible agency | 1.1, 1.2 |
| Department of Geology and Mines | TA support for designing activities, site identification and Hazard mapping | Outputs 1.2, 1.3, 1.4 |
| Department of Engineering Services | TA support for designing activities and interventions | Outputs 1.1, 2.1 |
| Mongar Municipality | Local context support for water sector interventions in Mongar | Output 2.1 |
| Tarayana Foundation | Implementation and Community mobilization for water sector interventions | Output 2.2 |
| Local Communities | Ownership, Management and Feedback for interventions as ultimate beneficiaries | All |
| Department of Disaster Management | TA support for designing interventions | Output 2.3 |
| Department of Forests and Park Services | TA support, Training and institutional integration of CFFM groups (Forest Fire) | Output 2.3 |
| Department of Hydro-Meteorology Services | Technical Inputs for designing interventions | Outputs 3.1, 3.2 |
| Dzongkhag administrations | Local knowledge and context/feedback for activities, integration of climate services evidence for local planning | Outputs 1.1, 1.2, 2.1, 2.2, 3.1, 3.2 |

UNDP offers cross-cutting support across all work streams and outcomes as identified in the project in addition to facilitating the coordination and results based delivery.

# Findings

The PROJECT is a large donor programme working with the RGoB to achieve local level, climate-induced disaster risk reduction and adaptation to climate change. The programme has generated outputs that are likely to contribute in achieving its impact statement of enhancing the ability of the poorest and most vulnerable people to adapt to the impact of climate and climate-induced disasters. The achievement of the programme is related to the high level of ownership of the government systems – especially from the NEC Secretariat. It has showcased an effective model to operationalize local level climate change-induced disaster risk reduction and management processes using a blended approach led by the government systems of *Dzongkhag* and *Thromde* leveland community institutions promoted by NGOs and Gewog and local levels. The programme achieved the use of participatory approaches in programme planning and management.

The design and implementation of climate change adaptation activities could be strengthened, with a more strategic approach to urban resilience, better convergence and increased capacities at provincial/*Dzongkhag* level. Monitoring and learning processes could be improved. Even so, the PROJECT can offer a great deal of cutting edge learning for the adaptation and disaster management communities within South Asia and around the world.

The key findings are grouped under the four broad headings of project strategy, progress towards goals, implementation and management and overall sustainability.



## Project Strategy

The overall objective of this programme is ‘***to enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards to reduce potential losses of human lives, national economic infrastructure, livelihoods, and livelihood assets in Bhutan***’. The programme has three outputs, and a summary of assessment of achievements is provided below.

Bhutan requires crucial support to counter immediate threats posed by climate change to vital economic infrastructure, as well as to strengthen national capacity for climate change adaptation and developing adaptation alternatives for projected prolonged periods of drought in rural areas and urban centers. The proposed project Outcomes and Outputs individually address specific needs as identified under the NAPA, while together they constitute a comprehensive package which leverages Outcomes and Outputs’ complementarity and synergy towards strengthening of overall national and local capacity for disaster and climate change resilience. The overarching goal of the project is thus to safeguard Bhutan’s key economic development infrastructure, to strengthen resilience against climate-induced water scarcity and in general terms to strengthen national and local capacity for natural disaster response and climate resilience. This goal is consistent with and underpinned by, a number of important policies and strategies governing Bhutan’s national development and its specific response to climate change.



### Project Design

|  |
| --- |
| This section of the review attempts to look at:   * Review of the problem addressed by the project and the underlying assumptions. Review of the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document. * Review of the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design? * Review of how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)? * Review of decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes? * Review of the extent to which relevant gender issues were raised in the project design. * Areas recommended for improvement based on potential major areas of concern. |

The project design, as we reviewed has taken into consideration the development priorities of the government, resulting in a buy-in from the government and various stakeholders. Project activities are largely results-driven. There is integration into local planning, according to the key informant interviews at the dzongkhag level. The project priorities and district/thromde objectives overlap. This supports the districts/thromde on their achievement of priorities. There is some evidence to suggest that THE PROJECT has helped build climate change thinking into planning for non-NAPA funds (e.g. Phuentsholing administration incorporating flood resilience planning in Barsa river project with Asian Development Bank support).

The project incorporates and aligns with multiple development priorities of the national government and sub-national administration through the work streams. There is good awareness in administrative circles of how the project sits alongside other local development activities. A consultative approach has been followed in the case of development and identification of project activities in the project, which is evident from the **high level of output ownership** among various stakeholders.

The table below indicates alignment of project priorities with national/sector and international development priorities

Table: 5: Project Design as aligned with relevant national and international development priorities

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Design Particulars** | **Relevant National Priorities/Policies aligned** | **Relevant GEF - Adaptation Strategies aligned** | **Relevant Sustainable Development Goals and Targets** |
| Project objective:  **To enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards to reduce potential losses of human lives, national economic infrastructure, livelihoods, and livelihood assets.** | Bhutan 2020: A vision for Peace, Prosperity and Happiness   * Environment is not treated as a ‘sector’ but rather as a set of concerns that must be mainstreamed in the overall approach to development planning and which must be buttressed by the force of law. * The challenges posed by growing pressures on the natural environment are not to be seen in isolation to other challenges.   RNR-Sectoral Adaptation Plan of Action (2013)  The RNR sector is perceived to be affected more than other sectors as a result of the impact of climate change and climate induced disasters.  Disaster Management Act of Bhutan (2013)   * Focus on CBDRM-based participatory approaches by all agencies under National Disaster Management Authority (NDMA) mandate to prepare Contingency Plans. | Results Framework of the LDCF and the SCCF:  **Integrate climate change adaptation into relevant policies, plans and associated processes**   * Institutional arrangements to lead, coordinate and support the integration of climate change adaptation into relevant policies and associated processes established and strengthened * Policies, plans and associated processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures * Systems and frameworks for the continuous monitoring, reporting and review of adaptation established and strengthened | **Goal 1. End poverty in all its forms everywhere**  By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters  **Goal 13. Take urgent action to combat climate change and its impacts**  **Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss** |
| Outcome 1:  **Risk from climate-induced floods and landslides reduced in Bhutan’s economic and industrial center Phuentsholing and Pasakha Industrial Area.** | Water Policy (2002):   * Recognizes that the sustained flow of good quality water depends on the integrity of the watersheds. It places an emphasis on water resource management within river basins and aquifers, including upstream and downstream water users.   Bhutan 2020: A vision for Peace, Prosperity and Happiness   * Watershed management is a key tool for maintaining biodiversity, soil fertility, the biological productivity of natural systems, and for combatting erosion and other forms of environmental degradation. Effective management of watersheds is considered as a key to achieving sustainable development gains. | **Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change through:**   * Improved institutional and technical capacities and human skills to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures | **Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**  9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all  **Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable**  11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations |
| Outcome 2:  **Community resilience to climate-induced disaster risks (droughts, floods, landslides, windstorms, forest fires) strengthened in at least four dzongkhags.** | Biodiversity Act (2003):   * The conservation and sustainable use of biological resources, the equitable sharing of benefits from the use of resources, as well as the transfer of technology and capacity-building at national and local levels on conservation and the use of biological diversity for resilience.   National Forest Policy (2010)   * Prevent and control forest fires in fire sensitive ecosystems while prescribed forest fires may be used as a management tool by communities for improving ecosystem health   National Environmental Protection Act, NEPA (2007)   * The Act calls for conservation of natural resources to be based on a participatory approach aimed at achieving an equitable sharing of the costs and benefits of conservation among resource users. It also provides for promoting the use of clean energy and alternative technologies in order to reduce use of fuel wood/timber from primary forest.   Disaster Management Act of Bhutan (2013)   * Dzongkhag Disaster Management Committees (DDMC), shall develop, review, update and implement the Dzongkhag Contingency Plan acknowledging CBDRM plans and Hazard, Vulnerability and Capacity Assessment (HVCA) results for completing risk assessments. | **Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change by:**   * Reducing the vulnerability of physical assets and natural systems * Diversifying the livelihoods and sources of income of vulnerable populations * Scaling up of Climate-resilient technologies and practices | **Goal 13. Take urgent action to combat climate change and its impacts**  13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries  13.2 Integrate climate change measures into national policies, strategies and planning  **Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss**  15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world  15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits |
| Outcome 3:  **Relevant information about climate-related risks and threats shared across development sectors for planning and preparedness on a timely and reliable basis.** | Disaster Management Act of Bhutan (2013)   * The success of an effective DM plan lies in the planning process that allows different stakeholders to generate gather, process and analyze required technical information and data. * Dzongkhag officials are encouraged to use and adapt data to help risk planning and consult national agencies and regional offices for obtaining the most-updated technical / scientific information and data to complete risk assessments | **Strengthen institutional and technical capacities for effective climate change adaptation through:**   * Increased awareness of climate change impacts, vulnerability and adaptation * Improved scientific and technical knowledge base for the identification, prioritization and implementation of adaptation strategies and measures | **Goal 13. Take urgent action to combat climate change and its impacts**  13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning  13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities |

The project design also is strategically aligned to the Sustainable Development Goals of Bhutan. The strength of close synergies between UN SDGs (2030), relevant GEF strategic priorities in adaptation for LDCs and locally relevant policy frameworks is testimonial to the design strengths of the project. The project was developed over the period of 2012 -2013, with endorsement from the GEF CEO received in April 2014. At the inception phase in 2014, the project team made an extensive updated review of policies and experience from other projects and initiatives; these are documented in detail in the Prodoc. Stakeholder mapping and the inclusion of gender concerns reflect that safeguards to ensure inclusion of vulnerable and marginal groups in the project was adopted. The Prodoc also indicates that as part of the project preparation phase, environmental and social risks were also screened.

There is a high level of integration of the SDG targets into the 11th national Five Year Plan. 93 SDG targets have been prioritized out of 102, excluding targets related to SDG 14 on Oceans and SDG 17 on Means of Implementation. Therefore, there’s a strong linkage between the project objectives and relevant Eleventh Five Year Plan (2013-2018) objectives through complimentary goals such as GEF-Adaptation goals and UNSDGs (2030). Moreover, at a higher level 15 goals under the SDGs are integrated with the **16 National Key Result Areas (NKRAs)** of the 11th Five Year Plan suggesting reconciliation of national level priorities.

Bhutan has also recently been promoting mitigation and adaptation measures for crop and livestock production through the national strategy on climate change adaptation of the Sectoral Adaptation Plan of Action (SAPA) (MOAF, 2014). Further, during the Paris Climate Summit in December 2015, Bhutan committed to remaining carbon neutral, whereby emissions of greenhouse gases (GHGs) will not exceed the estimated at 6.3 million tons of CO2 sequestered in forests (NEC, 2015).

The project has taken into consideration the stakeholder perspectives in decision making by institutionalizing stakeholder participation in planning, implementation and monitoring of project activities. For example, in PIA, the stakeholders’ views (downstream communities) are on-boarded in designing interventions and technical discussions on structure parameters etc. This has translated to a visible increase in confidence and ownership of project activities in the area.

Some of the work packages have also generated additional positive outcomes, which were not evident during the project design stage (e.g. impacts generated in educational and health outcomes of beneficiaries in Tarayana Foundation’s work package). Accounting for additionality is always contentious and cannot be fully captured in the design stage. Gender mainstreaming is an area where better designed systems could have quantitatively (indices) or qualitatively (scales and perception measurements) mapped the impact of the project fully across various work packages and outputs. The MTR team also felt that the project has potential to make strong impacts on gender-sensitive transfer of lessons and skills in the program across various outputs.

### Results Framework/Logframe

This section evaluates the following aspects and concerns:

* A critical analysis of the project’s Logframe indicators and targets, assess how “SMART” the midterm and end-of-project targets are, and suggest specific amendments/ revisions to the targets and indicators as necessary.
* Are the project’s objectives and outcomes or components clear, practical, and feasible within its time frame?
* Examine if progress so far has led to, or could in the future catalyze beneficial development effects that should be included in the project results framework and monitored on an annual basis.
* Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART ‘development’ indicators, including sex-disaggregated indicators and indicators that capture development benefits.

The Results Based Framework (RBF) indicators are accurately explained along with the source of verification and endline targets in the results based framework. In line with the MTR guidelines, the three outcome indicators and objective indicators were reviewed against Specific, Measurable, Achievable, Realistic and Time-bound (SMART) parameters. The RBF includes 14 indicators in total; two at the outcome level, two mapping the project objectives, and the remaining reflecting the progress against work stream outcomes. The summary below helps to explain this better. The 14 indicators identified in the Prodoc for the outcomes and objectives in Results Based Framework (RBF) are outlined as:

|  |  |
| --- | --- |
| **Project Particulars** | **Indicators** |
| Project Outcome  Project Objective  Outcome 1  Outcome 2  Outcome 3 | Outcome Indicators (2)  Objective Indicators (2)  Outcome Indicators (3)  Outcome Indicators (4)  Outcome Indicators (3) |

Table: 6 Rating of Results Framework Indicators

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Objective: To enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards to reduce potential losses of human lives, national economic infrastructure, livelihoods, and livelihood assets.** | | | | | | | |
| Indicator | Baseline | Endline Target | Rating | | | | |
| S | M | A | R | T |
| Level of capacity of local communities to prepare for and respond to climate-induced risks. | Local disaster mgt institutions **functional** in 16 of 20 dzongkhags | Communities capacity to prepare for and respond to localized climate-induced risks enhanced:  - Existence of functional local disaster management institutions; | **N** | **N** | **Y** | **Y** | **Y** |
| Mock-drills not widely adopted except 1 # of mock-drills under LDCF GLOF project; | - Adequate response to scenario-based early earning mock-drills (4 no. in Years 3 and 4, in 4 dzongkhags) | **Y** | **Y** | **Y** | **Y** | **Y** |
| - Availability of real-time localized weather data (measured in four sample dzongkhags) | **Y** | **Y** | **Y** | **Y** | **Y** |
| - Availability of seasonal water resource inventory (measured in 5-6 gewogs) | **Y** | **Y** | **Y** | **Y** | **Y** |
| SMART: Specific, Measurable, Achivable, Relevant, Time-bound  Green: SMART criteria compliant: Yellow: questionably compliant with SMART criteria; RED: Not compliant with SMART criteria. | | | | | | | |

The objective indicators focus on mapping the institutional capacity to prepare and respond to climate change impacts. However, the subjectivity in the indicators may render it difficult to operationalize. The capacities of communities and functional nature of institutions need operationalization. It is quite possible that DM institutions can remain functional yet result in no incremental gains in capacities of its members (example: Chukha DM).

The indicators to map the capacity building could be improved and elaborated using variables such as (*level of participation, proportion of population that are not aware of disaster preparedness, level of community cohesiveness, existence of community leadership* etc.). Organizational capacities of DM institutions can be better captured using variables that capture *enrollments, management, financial management, or technical skills* etc.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Outcome 1: Risk from climate-induced floods and landslides reduced in Bhutan’s economic and industrial center Phuentsholing and Pasakha Industrial Area.** | | | | | | | |
| Indicator | Baseline | Endline Target | Rating | | | | |
| S | M | A | R | T |
| Reduced damage from floods in the industrial hub of the country, Pasakha. | Heavy damages on some of the industrial units in Pasakha and the BFAL/BCCL residential colony.  Climate-induced floods and landslides impact industrial operations and socio-economic activities | Erosion in Barsa watershed and sedimentation and flooding in Barsa river is reduced due to comprehensive mitigation measures, reducing the occurrence of floods resulting in damages by 25%  Flood protection measures in place protecting lives and safeguarding economic assets from Barsachu flooding. | **Y** | **?** | **?** | **Y** | **Y** |
| Number of active and unstable landslides in Phuentsholing area | Pasakha Industrial Area, Phuentsholing Urban Area and the Phuentsholing-Thimphu Highway are among the most impacted | Four critical landslide sites in Phuentsholing-Rinchending area stabilized and contained within existing boundaries, safeguarding economic assets | **Y** | **Y** | **?** | **Y** | **Y** |
| Vulnerability and risk perception index [AMAT 1.2.15]  o Proportion of men in households that perceive landslides and floods as a major concern;  o Proportion of women in households that perceive landslides and floods as a major concern;  o Proportion of industrials units that perceive floods as a major concern; | GNH Survey 2010 reports that 29% of the surveyed population perceive landslides as a major concern and 26% perceive floods as a major concern.  50.9% of the interviewed Phuentsholing and Pasakha residents perceive landslides as a major concern (58.7% for male and 33.9% for female)  49.6% Pasakha residents perceive floods as a major concern (or 55.4% for male and 36.8% for female) (based on ad hoc preliminary survey during PPG); | Proportion of women in households that perceive landslides and floods as a major concern reduced by 30%  Proportion of industrial units that perceive floods as a major concern reduced by 30% | **Y** | **Y** | **Y** | **?** | **Y** |
| SMART: Specific, Measurable, Achievable, Relevant, Time-bound  Green: SMART criteria compliant: Yellow: questionably compliant with SMART criteria; RED: Not compliant with SMART criteria. | | | | | | | |

There are three indicators that map the Outcome 1 of reduced risks from climate-induced disasters in Bhutan’s economically and industrially important area; Phuentsholing and Pasakha. Capturing the losses and damages of natural disasters is a long and difficult process. This needs further elaboration and operationalization. Thus, the objectivity around measurability and achievability are to be reviewed in the absence of an operational definition or boundary conditions of the loss and damage estimation.

The second indicator dealing with landslide risks also aims to achieve a reduced incidence of landslides within the project period. While the project is definitely making tangible impacts on arresting the landslides by slope stabilization and soil nailing techniques, newer and actively destabilized areas are now emerging, raising concerns on the achievability parameter of this indicator in the given timeline.

Vulnerability (and risk perception) indices are by nature static. This attribute could render them ineffective, unless used to capture snapshots at specific points in time. As static indices they are unable to respond to changes happening within the timeline. A more robust indicator will link a physical estimate (flood frequency) with socioeconomic variables that reflect poverty or deprivation (as proxy indicators for vulnerability).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Outcome 2: Community resilience to climate-induced disaster risks (droughts, floods, landslides, windstorms, forest fires) strengthened in at least four dzongkhags.** | | | | | | | |
| Indicator | Baseline | Endline Target | Rating | | | | |
| S | M | A | R | T |
| Water resource inventories, water harvesting technology and additional water storage capacity available in some the most drought-prone communities of Bhutan | No systematic water resources inventory has taken place due to limited funds and technical capacity  Several villages and urban centers in various dzongkhags experience water scarcity in the wake of declining water availability. | Up-to-date community-level water resource inventory and database in place in at least four dzongkhags, feeding into national water resources inventory/database;  One Municipal water supply system made climate resilient, serving 6,000 beneficiaries.  20 villages/ hamlets have adopted climate-resilient water harvesting approaches, -technology and efficient water management practices, therewith reducing water scarcity for some 420 rural households. | **Y** | **Y** | **Y** | **Y** | **Y** |
| Existence and operationalization of disaster management committees at the local level | The Disaster Management Act (2013) stipulates the creation of disaster management committees and formulation of disaster management plans at national and local levels, but have been established at present in four pilot dzongkhags only.  No community-based forest fire management plan and mechanism to systematically guide effective and coordinated forest fire management at the local level, though forest fire is a recurrent phenomenon. | Local-level disaster management committees (DMCs) established, capacitated and functional in at least four dzongkhags prone to climate-induced disasters;  Climate-induced disaster management plan developed, including for forest fire management, and integrated in local development plans and programmes in four dzongkhags. | **Y** | **Y** | **Y** | **Y** | **Y** |
| SMART: Specific, Measurable, Achivable, Relevant, Time-bound  Green: SMART criteria compliant: Yellow: questionably compliant with SMART criteria; RED: Not compliant with SMART criteria. | | | | | | | |

Indicators for Outcome 2 attempt to map the impacts in three different planes; knowledge (inventorying), technology (practices) and resilience (additional storage). A Knowledge-Attitude-Practice (KAP) tool can offer a logically superior method to capture the behavioral, attitudinal and knowledge changes as impacts of the program. The indicators are SMART though. A possible constraint that may arise in the future is the barrier in combining qualitative insights (from water resource inventories) with quantitative statistics (additional inches/cms. of water storage created); symptomatic of problems of a mixed-methods estimation.

The indicators used to map social capital (existence of operational DM institutions at district level) could be further improved by designing a more comprehensive/holistic indicator set that maps *governance, management, resource use, service delivery, financial and sustainability dimensions*. The current set of indicators though, definitely meet the SMART criteria. Our field visits suggested that community institutions with higher participation ratios, promoting thrift-associations and livelihood oriented (example: Khengkhar) score higher than singularly tasked institutions (DM institutions). The extent of co-financing (in kind/cash) offered by an institution as a proportion of the total costs could also better capture the extent of community resilience.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Outcome 3: Relevant information about climate-related risks and threats shared across development sectors for planning and preparedness on a timely and reliable basis.** | | | | | | | |
| Indicator | Baseline | Endline Target | Rating | | | | |
| S | M | A | R | T |
| Availability and the level of use of localized climate information. | The current network of meteorological stations is limited to 24 stations, of which only 3 are automated. Most cater to GLOF risks | Network with national coverage of minimum # 60 new real-time weather stations and # 45 new flood measurement stations | **Y** | **Y** | **Y** | **Y** | **Y** |
| Number and location of real-time weather observation, forecasting and warning stations that feed data into the NWFFWC; | The NWFFWC is in a nascent stage supported by a small network of meteorological stations and with insufficient capacity to analyze, manage, and disseminate climate information in a timely manner. | NWFFWC operational, with a core team of at least 10 members trained and established for climate data analysis, management and dissemination; | **Y** | **Y** | **Y** | **Y** | **Y** |
| Number of sectors using climate information to make their development policies and plans climate resilient | Demand for and use of localized climate information is yet unclear and undervalued  Due to sector fragmentation little exchange of knowledge, lessons and experiences takes place, existing platforms are shaped around national programmes (like NAPA working group) but do not function adequately outside the framework of these programmes due to limited capacity of NECS for multi-stakeholder process facilitation and sector leadership | Climate data/ information user training provided to at least 100 staff of key data user agencies,  Updated weather forecasting and localized climate information disseminated on a daily basis through web-portal, media and other means  At least three evidence-based policy influencing documents disseminated through NECS  National climate change policy framework in place (CC adaptation and synergies), with gender segregated policies and monitoring framework | **Y** | **Y** | **Y** | **Y** | **Y** |
| SMART: Specific, Measurable, Achivable, Relevant, Time-bound  Green: SMART criteria compliant: Yellow: questionably compliant with SMART criteria; RED: Not compliant with SMART criteria. | | | | | | | |

Outcome 3 is measured against the impacts on physical assets created and the consequent demand that arises from the creation of weather-climate-services infrastructure. As a result, these indicators meet the SMART criteria and are highly objective. The indicators mapping AWS and AWLS infrastructure that is part of a larger node of information gathering points for the NWFFWC are able to map the project progress. However, the indicators on demand generation can be further sharpened to include the *number of data products created, end user categories identified and the resolution/quality of data generated*, which can also provide snapshots of the nature of demand.

### Gender Mainstreaming

The detailed discussion on gender dimensions and the choice of various indicators to map climate resilience and community preparedness for disaster management in the project, indicate that sufficient attention was given to mainstream gender aspects of climate-induced disaster risk management in the project. The project preparation process recognized the special needs of other vulnerable groups such as children, less-abled, elderly, and the poor, in addition to women and the project thus recognizes the need for context-specific adaptation based on local vulnerabilities, drawing on local knowledge and capacities, and involving all stakeholders.

We further probed the element of gender mainstreaming in our Focus Group Discussions with communities in Khengkhar, Disaster Management Groups in Chukha and Village Forest Fire Management Groups near Thimphu. The project has reflected on the divergent gender-responsive needs of beneficiaries by:

1. Mainstreaming gender sensitive approaches in climate adaptation
2. Addressing discrete adaptation needs

Higher rates of women participation are evident in most activities of the project, while empowerment through better resilience and reduced vulnerabilities are the most common impact pathways, the project has adopted.

|  |  |
| --- | --- |
| **Project Details** | **How gender is mainstreamed?** |
| **Outcome 1:** Risk from climate-induced floods and landslides reduced in Bhutan’s economic and industrial center Phuentsholing and Pasakha Industrial Area. | The project recognizes the disproportionate burden and the many impacts women face because of climate change. The project identifies the role and socio-cultural constraints faced by women that make them vulnerable.  Vulnerability and risk reduction in the context of project has been operationalized as indicators that attempt capture the proportion of women who can perceive climate risks over the population. |
| **Outcome 2:** Community resilience to climate-induced disaster risks (droughts, floods, landslides, windstorms, forest fires) strengthened in at least four dzongkhags. | Community resilience in the context of project is operationalized as an inclusive ability of women and other marginal groups to recoup and adapt to the climate-induced disasters.  Women participation and leadership is acknowledged and endorsed in the community institutions created by the project. |
| **Outcome 3:** Relevant information about climate-related risks and threats shared across development sectors for planning and preparedness on a timely and reliable basis. | Maps the specific, disproportionate impacts of climate change on women and attempts to understand how the project can help adapt to the impacts of climate-induced events using access to improved information and data on disasters and weather/climate events.  Further clarity on the equity or inclusiveness of data-products is expected on the demand estimation for weather products. |

The strategy and RBF also discusses the gender inclusiveness of the project effectively. A check-list to ensure gender mainstreaming at various stages of the project implementation is included in the Prodoc. RBF does include gender-disaggregated data points, but very limited to the extent of perception studies on measuring the impacts of climate change and measuring disaster preparedness.

The gender emphasis on capacity building or outreach modules are not very evident from the RBF or Prodoc. The Prodoc however mentions the specific good practices in gender targeting and mainstreaming that could be incorporated in the implementation phase. It has also identified important linkages between water and gender that will help identify the levers that enable gender mainstreaming in the design and establishing community water harvesting, storage and distribution systems.

The PMU and the project stakeholders may consider assigning the role of a **Gender Focal Point** to one of the members in the PWG to oversee the progress in uptake and mainstreaming of gender under different work streams in the project.

### Progress Towards Results

A detailed analysis of individual outcomes and work packages is included in Table 7 below. Our review suggests consistent progress towards achieving the end-of-project targets and results. The untimely monsoon showers in 2016 and the procurement delays have delayed certain work packages though they are within achievable limits.

### Progress towards Outcomes Analysis

Table 7: Progress Towards Results Matrix (Achievement of outcomes against End-of-project Targets)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project Strategy** | **Indicator** | **Baseline Level** | **Status as of 30/06/16** | **End-of-project Target** | **2016 Midterm Assessment** | **Achievement Rating** |
| **Objective:**  **To enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards to reduce potential losses of human lives, national economic infrastructure, livelihoods, and livelihood assets.** | Level of capacity of local communities to prepare for and respond to climate-induced risks.  Availability of climate information and the level of their use for preparedness and reduction of impacts | * Local DMIs functional in 16/20 Dzongkhags * Mock drills not widely adopted * No real-time local weather data available * No CWRI available | * DDMC sensitized on existing legal and administrative DM frameworks * All blocks in Chukha have prepared their DMPs. * Establishment of a NEOC in progress * Establishment of 99 hydro-met stations ongoing | * Community capacity to prepare for and respond to localized climate-induced risks enhanced: * Existence of functional local DMIs; * Adequate response to scenario-based early warning mock-drills (4 no. in Years 3 and 4, in 4 dzongkhags) * Availability of real-time localized weather data (measured in four sample dzongkhags) * Availability of seasonal water resource inventory (measured in 5-6 gewogs | **On Target to be achieved**  Status has shown only incremental improvements over the 30 Jun 2016 status. | **Satisfactory (S)**  The objective is expected to achieve most of its end-of-project targets, with only minor shortcomings**.** |
| **MTR Comments and Rating Justification:**  The project objective is on track to be achieved. Most work streams/activities are on track at the midterm stage. Constraints such as minor delays in land acquisition for installation of hydro-met infrastructure, washing away of drinking water supply lines in flood prone areas in Mongar, difficulties in accessing high resolution rainfall historical datasets for achieving output 1.3 for predictive modeling of landslides, capacity constraints of implementing staff and contractors need to be addressed. Review suggests a high degree of achievement across various outcomes. The project needs to debottleneck system-level constraints (example: make available funding for DMIs in disaster management planning) to enhance capacities in DM planning and implementation. Currently the DM plans at local level are dysfunctional and the work plans for the subsequent periods have not been designed, pending approval of DMPs. | | | | | | |
| **Outcome 1:**  **Risk from climate-induced floods and landslides reduced in Bhutan’s economic and industrial center Gewog and Pasakha Industrial Area.** | **Indicator 1:**  Reduced damage from floods in the industrial hub of the country, Pasakha. | PIA, Gewog Urban Area and the Gewog-Thimphu Highway are the most impacted by climate induced disasters | * Detail survey and design of engineering solutions for landslides and flood at Phuntsholing and Pasakha completed. * Landslides stabilization works for four critical landslides at Phuntsholing are ongoing. * The detailed report for flood management work of PIA is being reviewed. * The works tender will be launched during the rainy season and civil works will begin after the monsoon. | Erosion and sedimentation in Barsa watershed is reduced, reducing the occurrence of floods resulting in damages by 25%  Flood protection measures in place protecting lives and safeguarding economic assets from Barsachu flooding | **Not on Target to be achieved**  There have been minor delays due to procurement and receipt of consultant reports for the engineering works. Progress noted on other activities; landslide stabilization and soil nailing.  Flood proofing yet to begin in PIA.  Consultant’s proposal for sedimentation dam upstream of PIA is non-feasible and costly. Suggest revising the indicator to the Flood protection measures installed protecting lives and safeguarding econ assets from flooding in place. | **Satisfactory (S)**  The outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings |
| **Indicator 2:**  Number of active and unstable landslides in Gewog area  **Indicator 3:**  Vulnerability and risk perception index   1. Proportion of men in HH that perceive landslides and floods as a major concern; 2. Proportion of women in HH that perceive landslides and floods as a major concern; 3. Proportion of industrials units that perceive floods as a major concern; | Past floods have inflicted heavy damage in the area  River dredging as a preventive strategy adopted  Existing large active landslides are common in the Gewog area, despite past stabilization measures  Approx. one-third and a fourth of the population perceive landslide and floods as major risks, respectively.  One third of industries in PIA perceive landslides as major threat | Pre-monsoon data collection completed for the six identified landslides.  Slope stabilization, soil-nailing progressing.   Perception survey completed. | Four critical landslide sites in Rinchending area stabilized and contained within existing boundaries, safeguarding economic assets    Proportion of men and women in HH that perceive landslides and floods as a major concern reduced by 30%    Proportion of industrial units that perceive floods as a major concern reduced by 30% | **Marginally On Target to be achieved**  Community awareness on flood proofing has increased. Local interest in project activities evident. Impact of slope stabilization and flash flood proofing undermined by vandalism and theft on project sites. Potential for improving engineering designs with community inputs |
| **MTR Comments and Rating Justification:**  There are incremental improvements over the 30th June status in progress. The landslide and slope stabilization works along with soil-nailing activities are progressing as per plan. The soil-nailing technology has generated considerable interest from community and academia. There are early signs of PIA stakeholders (private businesses) joining forces with the project for dredging on Barsa river basin for flood control. Focus Group Discussions with the community indicate heightened levels of awareness on floods and disaster management. Mock drills are however not organized in the region. Inputs from the community on flood proofing (regarding side wall specifications) if incorporated, will increase ownership. New land movements noted in the Rinchending area and non-cooperation of downstream, trans-boundary community stakeholders must be seen as threats that could undermine the impacts of existing intervention. While the ongoing flood stabilization works at Pasakha will protect the industrial areas from flooding, once complete, periodic dredging, during the dry season when the water level is low, must be continued for the investment to be effective. IMSRN’s (the firm that was hired to design the mitigation actions) proposal to build a sedimentation dam upstream of Pasakha industrial area ( so as to control the sedimentation upstream and reduce dredging costs) had to be shelved after the Project Board decided against as the design was never implemented in Bhutan and also owing to limited funds within the project. Since river dredging will have to continue even after the project’s intervention, the project’s target- reduced annual cost of riverbed dredging in Pasakha Industrial Area by 30 % - will not be achieved or compromised. We also propose that the indicators for End of Project Objectives (EPO), may be revised appropriately from 30% **reduced costs of dredging** to Flood protection measures in place protecting lives and safeguarding economic assets from Barsachu flooding**.**  An interesting point to record here is the change in perception levels recorded via a survey undertaken in PIA and Phuentsholing Thromde. Approximately more than half of the interviewed respondents (54.1%) believe that the occurrence of floods has decreased over the years. This is presumably influenced by the fact that since the disastrous floods of 2000, no flood of such magnitude and damaging scale has been experienced in the region. On the other hand, a large majority – nearly 70 percent – of the respondents perceived increase in the occurrence of landslides. Landslides have a higher frequency of occurrence and are etched in public memory over continued periods of time. Vulnerability/ risk perception was generally higher in the case of male respondents but the perception on the occurrence of floods and landslides was basically similar among both male and female respondents. 30% of the private businesses as stakeholders identify landslide as a major threat, while 20% perceived floods as a major cause of concern. | | | | | | |
| **Outcome 2:**  **Community resilience to climate-induced disaster risks (droughts, floods, landslides, windstorms, forest fires) strengthened in at least four dzongkhags.** | WRIs, water harvesting technology and additional water storage capacity available in some the most drought-prone communities of Bhutan | No systematic WRI initiative undertaken  Several villages in Dzongkhags experience water scarcity | WRIs for dry season completed for Mongar and Tsirang Dzongkhags. 20 villages have adopted climate resilient water harvesting systems. Self-help water user committees have been formed in these communities for long term sustainability of the water harvesting systems. The water harvesting systems have resulted in reduced hours spent on fetching water and less water related disputes in the communities. | Up-to-date community level WRIs and database in place in at least four dzongkhags, feeding into national water resources inventory/database;  20 villages/ hamlets have adopted climate-resilient water harvesting approaches, -technology and efficient water management practices, therewith reducing water scarcity for some 420 rural households.  One Municipal water supply system made climate resilient, serving 6,000 beneficiaries; | Community Based Water Resource Management (CBWRM) has been adopted in 20 villages. It has met its target and has been generating demand for additional work. The work package has created a replicable, scalable model for CBWRM incorporating gender, climate priorities. | **MS**  **Moderately Satisfactory**  The outcome is expected to achieve its end-of-project targets with significant shortcomings |
| Existence and operationalization of disaster management committees at the local level | DMPs call for establishment of DMCs  Recurrent Forest fires in the project area | 13 Village Forest Fire Management groups (under the Department of Forests) have been formed in order to build resilience to forest fires | Local-level disaster management committees (DMCs) established, capacitated and functional in at least four dzongkhags prone to climate-induced disasters;    Climate-induced disaster management plan developed, including for forest fire management, and integrated in local development plans and programmes in four dzongkhags. | DMIs are in place. 13 VFFM groups have also been set up. But lack of funds have led to idling of groups for DM, with no work plans for 2017-2018 |
| **MTR Comments and Rating Justification:**  The CBWRM activity package under the Outcome 2 (outputs 2.1 ,2.2) has been a huge success so much so that it has generated additional demand from neighboring communities and Gewogs. The stakeholders have pooled in contribution (in-kind) and show confidence in sustaining the activity, in the case of scaling down of project activities in the target area. The model has been tested to be scalable and replicable with positive benefits including, skill building of participating members in WRM planning, designing of interventions and financial inclusion (by way of thrift groups promoted). A detailed documentation of the model is necessary to understand the different spin-offs from the model.  The review insights require us to **flag the functionality aspects of DM institutions**. Though the output 2.3 is definitely achievable within the project timeline, the sustainability and efficacy of these institutions will need to be reviewed jointly with the Department of Disaster Management. Focus Group Discussions with DM institutions indicate that functionality is not guaranteed even as the DM institutions are set up and have members with interest. The DM activities of the institutions have come to a standstill, due to a lack of financial resources for implementation. This if not addressed on a priority basis, will eliminate the chance of organizing awareness and mock-drill sessions, undermining the impact and purpose of these community organizations and intervention. We also acknowledge that this may be a temporary hurdle as the Department of Disaster Management is reviewing the Dzongkhag DM plans and approvals of DM plans and financial resources are expected soon. Focus Group Discussions with VFFM groups reveal that there is high level of independence and competence built in as a result of exposure to training and good extension support from the Department of Forests. Minor hiccups such as resource allocation within the VFFM groups need to be addressed in consultation with the community members. | | | | | | |
| **Outcome 3:**  **Relevant information about climate-related risks and threats shared across development sectors for** | Availability and the level of use of localized climate information. | The current network of meteorological stations is limited to 24 stations, of which only 3 are automated. Existing infrastructure for climate risk | Establishment of 99 automated real time hydro-met stations is ongoing.  These hydro-met stations will feed information to the National Weather and Flood Forecasting and Warning Centre (NWFFWC). The NWFFWC has been set up and is now operational. NWFFWC provides periodic weather and flood warnings. The project has also trained 3 members on climate data analysis, management and dissemination. | Network with national coverage of minimum # 60 new real-time weather stations and # 45 new flood measurement stations created.  NWFFWC operational, with a core team of at least 10 members trained and established for climate data analysis, management and dissemination.  Climate data/ information user training provided to at least 100 staff of key data user agencies, e.g. disaster management, agriculture, forestry, hydropower, civil aviation, road transport, and tourism, and local government institutions.    Updated weather forecasting and localized climate information disseminated on a daily basis through web-portal, media and other means    At least three evidence-based policy influencing documents disseminated through NECS. National climate change policy framework in place (CC adaptation and synergies), with gender segregated policies and monitoring framework | Incremental improvement over the 30th June status.  AWLS and AWS stations are being established. A centralized platform for information transmission is being established.  The activities are on track. A demand-analysis of data products and end-users be conducted as the next step. | **Satisfactory (S)**  The outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings |
| **MTR Comments and Rating Justification:**  The activities and outputs under this module are on track. There is significant, progress noted over baseline even in the wake of delays over land acquisitions and installations. The impacts will be optimized if the flood proofing work in PIA is also covered by the activity streams under Output 3.1. A demand analysis for data products under the project will help customize interventions for sector level use. It can also improve the uptake of data products and information under Output 3.3. As the information sharing between nodes and hub commences, a blue print for integration of data NWFFWC and dissemination will be required. This is currently not included in the planning cycle. Capacity building of NWFFW and interfaces establishment with media/telecom regulatory policies will be required to realize the full impact of Outcome 3 and the overall project objective. | | | | | | |

|  |  |  |
| --- | --- | --- |
| Green= Achieved | Yellow= On target to be achieved | Red= Not on target to be achieved |

Indicator Assessment Key

### Remaining barriers to achieving the project objective

A complex project as NAPA II may face numerous systemic and implementation constraints that can adversely affect the impact of the project. In Table 8 below, we have attempted to map the barriers to various outputs affecting project objectives and the risks they pose to realizing the full impact of investments made under the project.

Table 8: Barriers to achieving project objectives and impacts

|  |  |  |
| --- | --- | --- |
| Deliverable | Barriers | Risks to Program Impact |
| Output 1.1:  PIA protected from climate-induced floods through watershed management measures, river bank protection works and development of flood buffer zones | * Dredging potentially impacting flood buffer zones adversely * Delay in consultant reports cascading into extended timelines * Mock-drills and community mobilization to be initiated to increase awareness, ensure ownership and sustainability of technical interventions before 2017 monsoon | * Delay in Outcome 1 timelines * Increased Investment Costs for Output 1.1 * Full impact of investments made in flood management not realized |
| Output 1.2:  Climate-induced landslide risk in four critical areas in Rinchending area reduced through Integrated slope stabilization measures | * Scouring risks of existing investments/intervention * Vandalism and theft in project sites * Environmental impacts of HDPE bags used for the intervention | * Significant risks to financial, institutional sustainability if community ownership and awareness not strengthened for output 1.2 |
| Output 1.3:  Integrated geo-hazard assessment and mapping carried out in four critical landslide- and flood-prone areas in Bhutan, using data standards compatible with the national database | * Review and validation are progressing and on track * National workshop scheduled for Q4 2017 | * N/A |
| Output 1.4:  Thresholds for landslide slope failure determined in different geological zones, through research correlating geological instability with rainfall data from weather stations | * Hourly rainfall data not available * Granularity and validity of data constraints high-resolution estimation * Downscaled data from climate models may compromise accuracy of forecasts | * Can undermine realization of full impact of the project objective in disaster preparedness and resilience |
| Output 2.1:  Climate-resilient water harvesting, storage and distribution systems designed, built or rehabilitated in at least four dzongkhags and one municipality | * Demand mismatch with the funds and resources for scale up * NGOs/CSOs that deliver significant impacts on sustainability and community participation handling disproportionately lower budgets | * Reduced community ownership would make it both, less broad-based and sustainable. * Top-down approaches could undermine the basic spirit of CBDRM strategy promoted by Outcome 2. |
| Output 2.2:  Community-level water resource inventory completed, maintained, and used for water resource management planning in at least four dzongkhags | * Inability to QC at Dzongkhag level for materials and services procured * Annual Maintenance/Service Contract not part of the contracts or negotiated positions * Lack of capacities for technicians on O&M of project assets | * O&M costs of implementation and absence of AMCs may increase wear and tear of assets. * Lower capacity at Dzongkhag can impair the effectiveness of community-water resource planning, and implementation. |
| Output 2.3:  Disaster management institutions at various levels established and trained in four dzongkhags for better preparedness and response to climate-induced disasters | * Delays in approval of DM (Gewog) and fund infusion * Enumeration of disabled and vulnerable not undertaken * Limited resources may produce sub-optimal outputs for scale up | * Inability to implement the DMPs in Gewogs will impact institutional sustainability of CBDRM initiatives. |
| Output 3.1:  Enhanced quality, availability and transfer of real-time climate data in all dzongkhags for climate resilient development planning and local disaster management | * Capacity constraints at Dzongkhag level to assimilate and process climate data * User requirements for Dzongkhag level climate services need clarity | * Lack of capacities at Dzongkhag level can adversely affect the possibility of using evidence-based approaches in climate adaptation and DRM |
| Output 3.2:  Increased effectiveness of National Weather and Flood Forecasting and Warning Center (NWFFWC) through improved capacity to analyze, manage and disseminate localized climate information in a timely manner | * Different server platforms from service providers create compatibility issues * Adequate technical expertise at national level for processing, accessing and relaying information, need capacity for convergence * Land acquisition for AWS and integration into a national grid | * Convergence of data products is critical to establish the effectiveness of climate service and DRM investments made |
| Output 3.3:  Policy makers and development professionals have systematic access to evidence-based information on climate risks and hazards through cross-government knowledge sharing and coordination mechanisms | * User survey for data products, preferences and applications yet to be designed and implemented * Availability of high resolution historical data sets is a constraint for meaningful trend analyses and drafting of inferences. | * Inability to incorporate user preferences for weather and climate services data for DRM could lead to decrease in adoption of information on climate risks and hazards |

### Project Implementation and Adaptive Management

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| --- |
| This section attempts to investigate:   * Management Arrangements * Work planning * Finance and co-finance * Project-level monitoring and evaluation systems * Stakeholder engagement * Reporting * Communications |

We interviewed key stakeholders of the project and held consultations with the Project Management Unit to understand the implementation and adaptive management mechanisms in the project. The stakeholders and implementation partners (IPs) expressed satisfaction on the existing project management functions and mechanisms.

**Transparency and Consultative approaches in decision making are widely appreciated by stakeholders and IPs.** The roles and responsibilities are understood and accepted. Work planning incorporated feedback and stakeholder perspectives. With progress in implementation, there has been increased demand creation in the project for financing new activities and work packages. The PB has put in a multi-criteria based objective filter to evaluate and review such requests for additional work packages.

### Management Arrangements

### Project Board (PB)

Project Board (PB) is established to provide high-level guidance and oversight to the project. The PB is chaired by the Government Secretary of the NEC and made up of senior representatives from all key national implementing agencies, UNDP and other key partner agencies. The PB is responsible for high-level management decisions and policy guidance required for implementation of the project, including recommendations and approval of project plans, budget and revisions. The PB decisions are made in accordance to standards that ensure efficiency, cost-effectiveness, transparency, effective institutional coordination, and harmony with overall development policies and priorities of the Royal Government of Bhutan, UNDP and their development partners.

The PB is constituted and meets regularly. Meeting minutes for all the four meetings made available to us suggest that the PB has been effectively providing important directional oversight to the project. In addition to the directional comments, PB has also has been extremely successful in advising the team on important technical implementation aspects on consulting procurement and prioritization of interventions keeping project cost considerations in view.

### Technical Advisory and Project Working Groups

At the operational level the TAG and PWGs offer implementation and monitoring support. The TAG comprises of a multi-disciplinary team of technical experts from various government agencies and implementing partners, to provide technical advice and support to the project ensuring technical guidance for civil construction works and coordination between various government departments. The PWG offers operational support by way of project progress review and in-house M&E support.

Two TAG meetings were convened till date for which minutes of the first TAG meeting was made available for the review. Minutes of the meeting indicate rich technical deliberations that are aimed at improving and exploring technical options for optimizing the impact of investments made under the program. The documents also suggest strong coordination between line departments and possible capacity enhancements via participation in collective thinking and technical deliberation processes. The meeting minutes are detailed and record discussions exhaustively.

### UNDP

As the GEF implementing agency, UNDP has offered substantive support services to the project, including administrative issues, financial reporting, procurement support, and technical advisory delivered through the regional technical advisor based in the Asia-Pacific Hub in Bangkok. Progress reports have been comprehensive and timely produced. The project implementation review (PIR) though exhaustive in its coverage, leaves room for capturing insights into program implementation and strategic management. The internal ratings do not reflect the challenges to implementation and achievement of impacts. There is also evidence that risk management matrix can be further improved to track and capture risks. The delays in starting up the project have been pointed out in the project progress reports, but there are significant constraints in fulfilling the intended the results on this project (example: the risks arising from lack of appropriate Quality Control mechanisms and capacity constraints), so that appropriate management responses can be taken in advance in communication with the PB for risk mitigation.

### Implementation Partners

This includes a host of government agencies coordinated by the National Environmental Commission Secretariat and the Gross National Happiness Commission. In addition to the GNHC and NECS, other implementing partners include; Ministry of Economic Affairs, Ministry of Works and Human Settlement, Ministry of Home and Cultural Affairs, Ministry of Agriculture and Forests, Phuentsholing Thromde, Mongar Municipality, Tarayana Foundation.

The implementation partners are part of the Project Working Group and hold regular, quarterly meetings to review the project progress and initiate requisite corrective actions. Meeting minutes of 9 consecutive PWG Review and Planning Workshops were shared with the reviewers. The minutes indicate effective deliberations and stock-taking to address project management and coordination challenges. Detailed reviews, action taken reports and action points are included in the notes. The review notes can also, possibly include sections that highlight emerging challenges over an advance quarter (with activity and spending forecasts). **Separate discussions with the implementing partners highlighted the robust level of trust and transparency in the PMU-Implementing partner interactions.** There is a strong-focus on results based planning and activity scheduling across outputs in the project. The PMU and project implementing partners review progress against the objectives and targets set in the logframe/results framework. Activities and roles are mapped against the results framework for work planning and budgeting of resources in implementation. Quarterly review and reporting formats incorporate and reflect upon the progress achieved against targets from the Results Framework. **Our Key Informant Interviews with project stakeholders from implementing partners and beneficiaries suggested that there was a high level of awareness on the objectives and outcome of the project.**

### Project Management Unit (PMU)

The PMU is hosted by the NECS. It is responsible for overall coordination with the various national implementing agencies for the delivery of project outputs in a timely and effective manner. It also facilitates project-related planning activities such as preparation of annual work plans and is responsible for overall project monitoring and reporting. **Mr. Thinley Namgyel** is the Project Director; **Ms. Sonam Lhaden Khandu** (Project Manager); and **Mr. Netra Sharma** the Project Support Officer. The table below indicates the list of project management meetings that were convened by the PMU supporting implementation.

|  |  |
| --- | --- |
| **Project Management Details** | **Dates** |
| **Project Board Meetings** | |
| First Project Board Meeting | 11th June, 2014 |
| Project Inception Workshop | 12th June, 2014 |
| Second Project Board Meeting | 21st November, 2014 |
| Third Project Board Meeting | 29th September, 2015 |
| Fourth Project Board Meeting | 11th August, 2016 |
| **Quarterly Review and Planning Workshops** | |
| First Review and Planning Workshop | 7th to 9th October, 2014 |
| Second Review and Planning Workshop | 29th Nov to 31st Dec, 2014 |
| Third Review and Planning Workshop | 7th and 8th April, 2015 |
| Fourth Review and Planning Workshop | 8th and 9th July, 2015 |
| Fifth Review and Planning Workshop | 1st and 2nd October, 2015 |
| Sixth Review and Planning Workshop | 6th and 7th January, 2016 |
| Seventh Review and Planning Workshop | 12th and 13th April, 2016 |
| Eighth Review and Planning Workshop | 6th and 7th July, 2016 |
| Ninth Review and Planning Workshop | 4th and 5th October, 2016 |
| **Technical Advisory Group Meetings** | |
| First TAG Meeting | 24th July, 2015 |
| High Level Stakeholder Information Meeting | 25th September, 2015 |
| Project Review Meeting with Hon’ble Vice-chair of NEC | 11th March, 2015 |

### Work Planning

There were delays in starting up the project. The CEO endorsement of the project was received on 24th March 2014, the project start date was 18th April 2014 with the inception workshop taking place in June 2014. Seasonal factors such as monsoon showers, extended procurement timelines, delays in procuring reports from the consultants have all cascaded into losses in activity timelines. The smooth coordination and trust between partners has helped the project advance in work streams and stay on track to achieving the targets outlined in the Prodoc.

The review and planning group meetings convened under the project, has been effective in planning, coordinating and implementing the plan reflecting the overall project goals and objectives. For the post-MTR phase, no changes are recommended in the implementation planning process. **It will be in the long-term interest of the project and stakeholders to convene both national and regional outreach events capturing the impacts and successful CBWRM models that the project could deliver. An impact analysis of the program will also be helpful to position further for larger collaborative partnerships with development financiers.**

### Financing and Co-financing

The project has a significant share of co-financing from various sources including development partners, sovereign government allocations, in-kind contribution from stakeholders (community contribution in construction of water harvesting structures etc.). A breakdown of project financing is given below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Details** | **GEF Grant (US$ Million)** | **Co-financing (US$ Million)** | | | | |
|  | **Y1** | **Y2** | **Y3** | **Y4** | **Jul 2014-Jul 2015** | **Jun 2015-**  **Jul 2016** |
| **Project Outcome 1** |
| Construction of National Highways |  |  |  |  | 5.80 | 5.80 |
| Phuentsholing City Expansion | 1.751 | 1.964 |
| TA support from Norway for EWS | 0.819 | 0.819 |
| **Total (Outcome 1)** | **8.37** | **8.58** |
| **Project Outcome 2** |
| Mongar Water Sources Expansion |  |  |  |  |  |  |
| Water Resources Inventorying |  | 0.318 |
| JSP/Tarayana Rural Fund |  |  |
| Tarayana Livelihood Program | 0.282 | 0.125 |
| Tarayana in-kind co-financing | 0.052 | 0.052 |
| DDM-CBDRM support | 0.085 | 0.078 |
| **Total (Outcome 2)** | **0.42** | **0.57** |
| **Project Outcome 3** |
| TA on GLOF and EWS (Finland) |  |  |  |  | 0.325 | 0.118 |
| DHMS Department budget | 0.893 | 0.923 |
| **Total (Outcome 3)** | **1.218** | **1.041** |
| **TOTAL (Annual)** | **2.48** | **5.25** | **2.39** | **1.37** | **10.00** | **10.19** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Budget Split** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Total** |
| **GEF** | **2.48** | **5.25** | **2.39** | **1.37** |  |
| **Co-financing** | **15.58** | **15.07** | **14.74** | **9.15** |  |
| **TOTAL (US$ Million)** | **18.062** | **20.327** | **17.130** | **10.511** | **66.031** |

A detailed outcome-wise breakup of the GEF grant is not available for tallying with co-financing data. The total amount of GEF Grant disbursed as of 30 June 2016 (U$S), per the latest available PIR report Sep 2016 is $ **2,882,867.17**

The original budget envisages a co-financing share that is five to six times the GEF budget approved for the project. Approximately two-third of the co-financing is mobilized for the National highway construction and city expansion components in Phuentsholing.

Collating data from the nine Review and Planning Workshop reporting, we arrive at an estimated **US$ 20.19 million** that has been earmarked as co-financing through the various implementation partner budgets[[3]](#footnote-4). Details of co-financing is not available and not tracked. Bilateral partnerships with Finland and Norway yield US$ 4.71 million over the period of project implementation. Tarayana Foundation has also mobilized co-financing (including in-kind contribution of US$ 0.156 million) close to US$ 0.407 million for the project. Various project review and planning reports show robust utilization ranges of 85~90% for the project activities. Co-financing data was sourced from GHNC, Dept. Of Budget, NEC, Department of Engineering Services and Department of Roads, RGoB. The co-financing data collection was arrived at by segregating contributions by source. **The MTR team also wants to flag the considerable delay in sourcing co-financing data from various government departments that has contributed to delayed timelines in MTR finalization**.

### Project level Monitoring and Evaluation Systems

Various mechanisms for concurrent M&E and reporting are embedded within the project management systems. This also includes the various project milestones such as:

1. *Inception workshops and Reports (IR):*

The IR assisted the project team to understand and take ownership of the project’s goals and objectives, as well as finalize preparation of the project's first annual work plan based on the project's strategic results based framework (RBF). This included a review and validation of the indicators, means of verification, assumptions to finalize the Annual Work Plan (AWP) with precise and measurable performance indicators. The IR also helped to establish a common platform for stakeholder engagement and collaborative planning.

1. *Project Implementation Review (PIR)*

The PIR is an annual monitoring process mandated by the GEF and conducted in an online/web-based format. A Project Implementation Report is furnished between July-June. The PIR attempts to capture external risks, communication of success stories, environmental and social grievances in the project area. It also contains basic project financial data with the latest expenditure statistics from the previous quarter.

1. *Quarterly Progress Reports*

Short reports outlining main updates in project progress that are provided quarterly to the UNDP Country Office, who will share these with the UNDP-GEF regional office.

1. In addition to these regular and periodic reports, the project has provision to produce **Special Thematic Reports** that will focus on specific issues or areas of activity.
2. *Independent evaluations*
   1. *Mid Term evaluation*
   2. *Terminal evaluation*

The independent third-party evaluation for mid-term will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. The Terminal Evaluation will focus on the delivery of the project’s results as initially planned (and as corrected after the Mid-Term Evaluation, if any such correction took place). It will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals.

A total indicative cost of **US$ 244,000** excluding project team staff time and UNDP staff and travel expenses has been earmarked for the M&E expenses in the project. This project has particularly high monitoring and evaluation demands. Monitoring protocols are yet to be developed for certain impact indicators (example: livelihood impacts from the project).

There is no gender disaggregation of the indicators; however, there are opportunities for disaggregation of some of them (example, the reports capture data on gender-wise training availed by project stakeholders and awareness generated). More parameters in terms of participation in community institutions for DM and resource use (water users’ association etc.) can be mapped to estimate the

**The review team believes that inclusion of a forecast for the upcoming quarter against previous quarters can help the project manager plan for risks and expenditure revisions in advance. It will also be helpful for the PMU to keep track of the co-financing component in the project. Currently this is not tracked, except for the expenditure utilization shared by the concerned implementing partner.**

### Stakeholder Engagement and Partnerships

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| This section intends to explore the following evaluation questions:  **Project management:** Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?  **Participation and country-driven processes:** Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?  **Participation and public awareness:** To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives? |

The project has generated strong stakeholder interest. Proxy indicators to measure the effectiveness of engagement would include; output-ownership by IPs and stakeholders and the additional demand generated by various work packages. The level of stakeholder engagement varies with the nature of work packages and interventions planned. IPs including *Tarayana Foundation* and *Gewog Thromde*, *Mongar Dzongkhag* could generate sufficient interest in the work packages and engage various stakeholder groups effectively. The project has also helped organize several training and capacity building programs for the stakeholders on a range of topics that is expected to impact the project delivery and quality of outputs significantly.

While stakeholder engagement has been generally good during the first half of the project, developing and operationalizing partnerships will be crucial for the project, given the emphasis on sustainability in interventions.

Under Outcome 1, the discussions with Association of Bhutanese Industries is progressing positively. There is scope for partnership in the flood proofing work package under Output 1.1 and 1.2 in the project. Scientific flood plain management and buffering activities, as envisaged in the project, can help bring down the annual dredging costs of private businesses significantly. **The project management will need to put extra effort to showcase the value adds from a partnership (in terms of ecosystem services; increased water availability, lower flood risks and operating costs – such as transport costs and reduced socio-economic vulnerability of its employees staying in close vicinity to the business enterprises).**

Under Outcome 2, the project has to its credit a superlative, functional model of stakeholder engagement that is both replicable and scalable. Documentation of impacts and political economy aspects of the model is required for promotion and wider adoption/recommendation in other programs implemented in Bhutan. In case of DMIs that are dysfunctional due to a lack of financial resources, the project has the flexibility to innovate around systems for stakeholder engagement, such as **Special Purpose Vehicles (SPVs), Single Window Service (SWS) Delivery Systems** that help overcome the financial and governance constraints. We have further captured three unique dimensions of stakeholder engagement in an adaptive management context that will offer insights into local-level adaptation planning (Annexure).

Capacity building is an area that can leverage gains from stakeholder engagement under Outcome 3 or the project in general. A total of 32 capacity building initiatives (including sponsorships for competitive tests and higher education for selected candidates) was recorded in this phase of the project spending an amount of US$ 0.55 million. A total of 551 males and 206 females from various stakeholder groups have undergone expert training on various aspects of climate change and disaster management till date.

### Reporting and Communication

In an earlier section (3.3.4) we discussed the various types of reporting arrangements in the project that help further the M&E goals. The various reporting systems (quarterly and annual) in the project has helped collate vast amounts of information on location specific adaptation opportunities. We strongly believe that an area of further improvement could be one where there is an incorporation of feedback loops. Currently the CBDRM institutions and CBWRM institutions (Khengkhar) act as the only conduits of community-centric feedback in reporting. These loops need to be amplified to understand the feasibility of opportunities and activities. For example; the FGD with community members in PIA revealed that increasing the flood protection wall on either side of the embankment was not the key, but on the right bund. These inputs have the potential to impact the success or failure of investments that the project decides to employ in flood proofing program.

External communication: This is another area where the project needs to fortify its resources is in the documentation and dissemination of success stories and models employing external or internal resources. The PMU is already employing social media for further disseminating the lessons and success stories from the project.

Internal communication in project management is perceived to be easy, trust worthy and transparent. Our interactions with implementing partners revealed that decision making and planning processes were the most transparent in the project.

### Sustainability

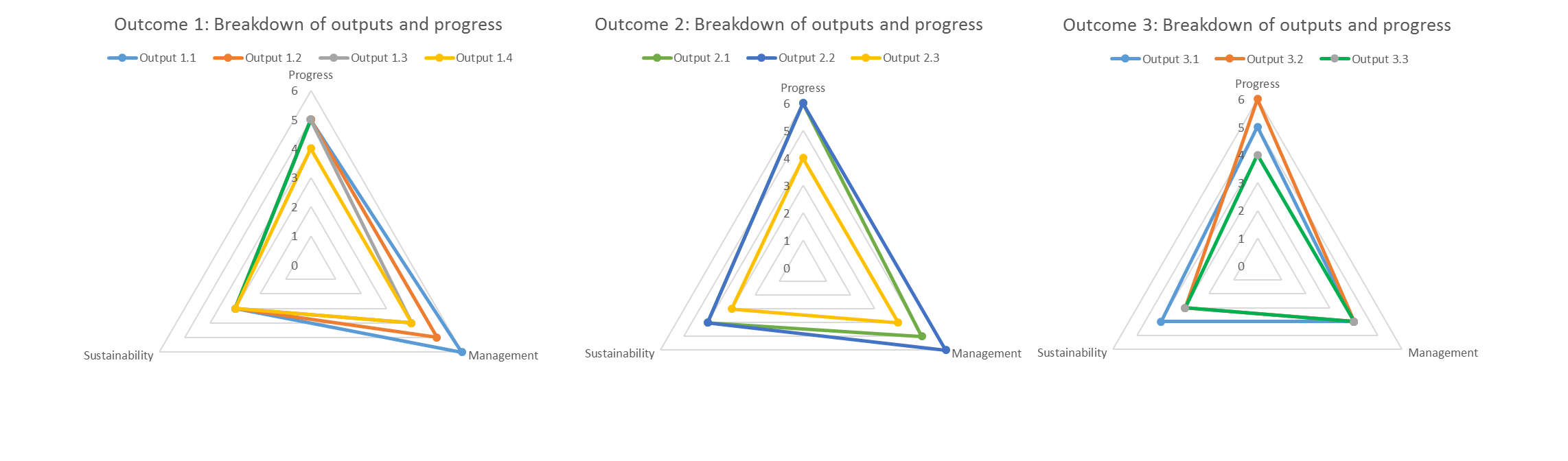
|  |
| --- |
| This section will explore:   * Financial risks to sustainability * Socio-economic to sustainability * Institutional framework and governance risks to sustainability * Environmental risks to sustainability |

We operationalize sustainability as the ability of a project to maintain its operations, services and benefits during and beyond its projected life time. Sustainability should also be seen within time and changing social, economic and political contexts.

Our evaluation suggests that the program will have higher sustainability outcomes because of the nature of strategic infrastructure it could institute or establish for Bhutan. Hydromet services and landslide stabilization techniques along with road planning and hazard early warning systems are to stay, given the longevity of infrastructure projects and their utility for economic development of Bhutan.

We believe that the challenge to sustainability of project outcomes will be partly attributed to “*network effect*”, with demand creating more users and utilization or benefits from the infrastructure set up by the project. As more users and sectors rely on the *Hydromet Services* and *Early Warning Systems*, there will be regular and systematic improvements in the infrastructure and services. A pre-condition to improving sustainability in the project is to build capacities of the program and staff to operate and maintain the infrastructure.

Mapping Sustainability of project outcomes



An attempt to map sustainability, adaptive management and progress of the three project outcomes yielded these insights:

* **Sustainability of project activities is least where there is an increased focus on infrastructure and weaker feedback loops.** Outcome 1 of the project deals with improving the flood risk resilience of Phuentsholing and PIA areas. The activities are heavily inclined towards technical assistance and civil construction such as landslide stabilization and flood proofing. The corollary of this insight, stronger potential for sustainability of actions in Outcomes 2 and 3 with strong community-project linkages, also holds true.
* **Outcome 2 (Output 2.2) has scored higher in progress, as Tarayana Foundation has got the target villages saturated with the intervention, which is highly demand-driven**; construction of water harvesting structures and promotion of Community Based Water Resource Management (CBWRM) practices including slope stabilization with green cover.
* **Output 3.1 and 3.2 (increased capacities of NWFFWC and availability of quality hydromet data) also show progress and sustainability as these services can become demand-drivers for economic growth and development.** The progress in installation of hydromet units (AWS and AWLS) and the establishment of NWFFWC has catalyzed achievements under outputs 3.1 and 3.2. These are strategically essential services or assets for the nation and will always be on demand.

### Financial Risks to Sustainability

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| Likelihood that benefits will continue to be delivered after project closure: **Moderately Likely** |

Royal Government of Bhutan has demonstrated commitment to fight climate change as a signatory of Paris Accord in 2016 and also championing an economically viable, environmentally sustainable development approach. The various policy documents discussed in the earlier sections (Vision 2020, National Forest Policy, Water Policy etc.) also acknowledged the pivotal role of climate adaptation in sustaining economic growth. However, the financing requirement for plugging the adaptation gap in Bhutan cannot be covered under a single initiative or program. It calls for a concerted, holistic approach.

While the current project has considerable co-financing, financial dependence on external donors beyond the project timelines may not be advisable. It is, therefore, highly unlikely that sufficient resources will be available to support extend or scale up the project results following closure with further GEF project. However, the success of the development model or project activities can spur interest from international climate and development finance sources including:

1. Competitive international climate finance sources (Green Climate Fund, Pilot Program on Climate Resilience)
2. Competitive international and regional urban development programs that focus on climate proofing urban growth and infrastructure against climate-induced disasters and
3. Regional multilateral (European Commission, World Bank and Asian Development Bank) and bilateral donors (SDC, NORAD etc.) whose priorities overlap with the key sectors of RGoB and UNDP in Bhutan.

From a project perspective, available resources are spread thin, considering the scope and extent of activities planned. And, there have been essentially no synergies developed with key co-financing partners. These shortcomings diminish the likelihood that benefits generated on the project will be sustained after GEF funding ceases.

### Socio-economic Risks to Sustainability

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| Likelihood that benefits will continue to be delivered after project closure: **Likely** |

Bhutan has traditionally been an egalitarian society in which differences between rich and poor were never pronounced. The erosion of traditional perception and understanding of social systems in natural systems carries potentially disturbing consequences for the environment.

The acknowledgment of Bhutan’s vulnerability to climate induced disasters and the role of the project in addressing the climate and socio-economic risks, reducing vulnerabilities is paramount. We have also attempted to demonstrate how the project objectives and outputs feed into the SDG 2030 indicators that are adopted by Bhutan. **134 of 143 relevant indicators in the 15 realms (excluding oceans and means) are mainstreamed into Bhutan’s economic and welfare programs and Five Year Plans**. **The UNDP-GEF project has the potential to contribute and support the government achieve SDGs set out by the indicators therein.**

A substantive proportion of the financing is also utilized for building the local capacities of government and staff. This, undoubtedly has a catalytic effect on the growth prospects of the state by carving out a cadre of technically trained staff with the capability to undertake scenario planning in economic and environmental development.

Realization of the project benefits including, better optics and tools for prioritization of adaptation investments in fragile zones with marginal and weaker sections will add to the project sustainability (example: landslide threshold identification and DM institutions in fragile zones that prioritize adaptation and DRR practices for women and the elderly).

Some of the successful project interventions including community-based water resources management have demonstrated the reduction in vulnerability by achieving reduction in water-borne diseases, better enrolment in schools, providing newer livelihood opportunities to men and women and reduced the drudgery faced by women in inhospitable terrains (example: Tarayana Foundation’s work in Khengkhar village).

This induces us to believe that the likelihood of uptake of outputs from the project is positive. If the project fails to translate the climate vulnerability reduction achievements in the welfare perspective, sustainability risks may remain high.

### Institutional and Governance Risks to Sustainability

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| Likelihood that benefits will continue to be delivered after project closure: **Likely** |

As indicated under the discussion of financial risks to sustainability, there have been positive developments in terms of establishment of strategic, weather and climate services information infrastructure in the country. Newer community-linked models of development in watershed have shown sustainability of demand-driven initiatives.

The project demonstrated and provides a strong institutional framework and governance structure for guiding efforts at climate adaptation and disaster risk reduction, moving forward. The National Weather Forecasting and Flood Warning Center has been established as the nodal center for collating the weather and climate information and converting them to useful weather products, facilitating inter-sectoral collaboration towards reducing climate-induced risks.

The project does not offer a divergent perspective to governance and local institutional mechanisms for climate/risk governance. The project promotes a structure that is politically and administratively aligned with the existing governance structure of Bhutan.

Embedding the project approaches in a larger governance and climate risk reduction perspective, will offer unique insights to sustainability of institutions. The project introduces elements of scenario-based planning to foresee and plan for risk mitigation and vulnerability reduction in disaster prone areas. These can help local governments to adopt contingency planning in the events of hazards and prepare its citizenry using advanced information on weather and climate-induced disasters.

### Environmental Risks to Sustainability

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| Likelihood that benefits will continue to be delivered after project closure: **Likely** |

The Government has set its policy priorities clear and straight by explicitly expressing the need to address climate vulnerability for conserving Bhutan’s ecosystem.

The project is yet to demonstrate how the outputs lead to scenario-planning and could save the ecosystem from the harmful effects of unplanned growth and save precious lives. The government is highly likely to stay invested in the sector and focus on vulnerability reduction as 69% of its population depends on natural resources and agriculture that are in-turn dependent on rainfall (climate) for growth and prosperity. Natural Resources also offer the maximum value for investment returns in welfare oriented development strategies. In line with the green growth approach promoted by the government, environmental risks to project is minimal and the likelihood of continued benefits from the project is high.

# Conclusions and Recommendations

Whilst judging the success of the project is beyond the scope of this MTR, the project’s strengths in implementing community level disaster management activities which reach stakeholders is underlined. The project is on track in achieving the project outcomes and realizing the full impact of investments made by GEF and implementing partners. The project is aligned well with national and local priorities, but will need management response mechanisms to handle demands for engagement and scaling up from local administrations and stakeholders. The key conclusions we wish to highlight from the MTR are:

**C1: Community Engagement in the project has led to positive sustainability outcomes**

Strong community engagement has shown positive spin-offs in project sites. This has included among others: Increased school attendance for kids, reduced drop-out rates of girls, improved health status, reduced drudgery for women and increased collective aspirations. Investments in community engagement has also led to realization of co-benefits in job creation and additional days of labor/livelihoods support. **Our review shows that approximately 60% of the savings from thrift/self-help groups promoted under the work package are utilized for creating livelihood avenues**.

**C2: Dedicated Quality Control and Capacities at Dzongkhag level critical to project success and sustainability**

Varying levels of capacities and quality of deliverables may undermine the impact of PROJECT deliverables. The absence of QC systems at project level may also, as pointed out in the barriers analysis, lead to cost-overruns and resource wastage. PMU data should be able to capture quality details and facilitate TAG support, with PMU oversight, as required. Alternatively, TAG supervision of weaker Dzongkhags may also be explored.

Procurement systems are operating to support delivery at the community level, but procurement risks remain high, and Phase II will need to include greater experience sharing around procurement, including effective internal and external audit and validation systems.

**C3: Scaling up activities for urban DM offers opportunity to explore non-climate finance**

In the absence of a mechanism for tracking co-finance, it is advisable to support project expansion in Gewog through government revenues or international/domestic financing. However, the efforts till date were focused largely on leveraging climate financing. A new approach that focuses on urban development and green growth in an urban context can be explored. This can potentially address major disaster events and economic shocks [Resilient Cities Framework]. Bilateral funding, employing an Economic Corridor Approach, can also be explored in Jaigaon-Gewog border. Potentially increases the role of formal and informal institutions in Transboundary DM.

**C4: Internal QC systems as well as pathways to share Contract-Procurement Management Good Practices must be activated and strengthened**

Trilateral consultation sessions with Consultant-RGoB-Contractor must be standardized and the consultant must avail his services till the on-boarding of the contractor is completed. Insisting on a standardized monitoring and reporting framework for contractors can help the project managers and IPs achieve project objectives and forecast delays.

**C5: No Cost Extension of the project must be sought and utilized for outreach and knowledge management to realize the full impact of the program**

Project Extension, if available, could be best invested in KM and Outreach (Impacts for Business Development). This can also help the PMU conserve the project deadlines and let spill only a minimal part of the extension into implementation.

**C6: Work packages under THE PROJECT are best placed to offer bankable individual concepts for leveraging national and international climate finance**

Project results can help create a National Adaptation Strategy for enhanced access to Adaptation Fund/Multi-lateral financing resources. Projectising successful models from the NAPA-II project could target Enhanced Direct Access from sources such as GCF. Significant amounts of capacities required for Climate finance readiness under GCF.

Our key recommendations from the findings presented in the section above are:

|  |  |
| --- | --- |
| Recommendations | |
| **R1** | **Engage community institutions in DM** to reduce risks and ensure successful achievement of Outcome 1.  Possible avenues of engagement include:   * Community engagement in trans-boundary DM through Friendship Associations and informal, CSO level dialogues in Gewog Thromde * Transboundary business associations * Broadening of agenda of current dialogue mechanisms |
| **R2** | **Regularly review and report the risks to investments and assets. Review of indicators to fully capture the capacity addition in flood protection measures recommended.**  This can help ensure that assets created by the project remain stable and functional in the face of recurring land movements and climate-induced risks.   * Land movements, if left unchecked, in the vicinity of *Rinchending Goenpa* has the potential to impact slope stabilization works undertaken by the project downstream on *Om Chu*. * Scientific dredging to be planned and implemented in PIA for flood plain buffering * Capacities of Dzongkhag level CBDM institutions can be built to monitor and report risks such as land movements near project areas * Revision of indicator from 30% reduction in cost of dredging to *Flood protection measures in place protecting lives and safeguarding economic assets from Barsachu flooding*. |
| **R3** | **Harmonize work streams for maximizing impact of project investments**  This can help integration and replication for scaling up the project impacts. For example, the community water harvesting and storage model under Outputs 2.1.5 – 2.1.10 have emerged as a replicable model that combines risk reduction, and water harvesting with community institutions for DM and livelihoods support.   * Outputs 3.1 and Output 1.2 by way of integrating flood plain buffering with AWLS sensor installation can yield better impacts. * Capacity building and mock-drills be offered to communities along the Pasakha river (PIA) for optimal outputs (1.2) |
| **R4** | **Promote hybrid models of last-mile service delivery through strong stakeholder linkages.**   * CSO-based Last Mile Service Delivery models be explored for optimizing impacts (reach and penetration of gov. sponsored programs under Outcome 2. |
| **R5** | **Measure and quantify impacts of community engagement for capturing co-benefits of the intervention and further scaling up.**   * Co-benefits of water harvesting interventions such as reduction in drudgery and economic value generated for women, labor, female education enrollment, health impacts, ecosystem services, capital and credit availability and financial literacy be captured for impact assessments of Outcome 2 |
| **R6** | **Share and promote adoption of good practices in Contract and Procurement**  Progress under the work packages for activities 2.1.1, 2.1.2, and 2.1.3 were adversely impacted by quality control issues with contractor/service provider being unable to deliver outputs as promised.   * Our review of the contractor-client interaction in Mongar as a part of the review of outputs 2.1.1.-2.1.3 shows the possibility of improvement in the current relationships and optimize the impacts of the intervention. * Good practices such as tripartite review meetings between client, contractor and consultants in Phuentsholing has helped iron out constraints in time-sensitive civil construction works * Opportunities to empanel, and award contracts to qualified contractors meeting QA standards in the project could be explored, if complying with RGoB procurement protocols. * As an example, community members in the PIA flood plains had suggestions on the required height of the wall for effective flood proofing. A feedback loop integrating community-consultants-contractors with PMU can ensure peer scrutiny, community audit and QC along with necessary buy-in. |
| **R7** | **Develop a Knowledge Management Strategy**  The KM strategy will help identify avenues for learning, transfer of lessons and capacity building in the project under Outcome 2   * KM Strategy will assist the operationalization of awareness generation and capacity building activities under various Outcomes * It can further ensure the sustainability and adaptability of program learnings and benefit future projects * The project generates considerable knowledge at various levels (example: training programs undertaken by officials at ADPC, RIMES etc.). Consolidating the knowledge accessed and shared under the project and converting them to appropriate products incorporating local knowledge can help develop a customized, local training program for RGoB. |
| **R8** | **Adopt a CBDR approach in Capacity building based on a Training Needs Analysis**  A project as complex as this would generate considerable demand for capacity building across work streams. However, it is also very pertinent to identify the ‘responsibilities and respective capabilities’ for customizing targeted sections.   * Capacity building of Dzongkhag level officials (Project Management) and field level staff (technical and O&M) to be taken up on priority and integrated into Water Sector interventions (Outputs 2.1.1-2.1.5). Capacity building initiatives be linked to Training Needs Assessment outputs * Capacity is being built for DHMS and DGM on Early Warning Systems and weather forecasting. Considering the multiple sectors they cater to and the range of forecasting products they must develop, a **Weather and Climate Services blue print** can be prepared. * Capacity building at national level for line departments (DHMS, DGM) be undertaken with the NEOC and NWFFWC to emphasize on convergence of EWS products originating from different projects (e.g. GLOF alerts, Flood alerts, Storm-Rainfall alerts) * End user studies be undertaken to understand the product requirements (seasonal forecasts, medium range and long range forecasts) for different user categories. Trainee feedback and client feedback must for QC. |
| **R9** | **Request No Cost Extension for the project**   * **A No Cost Extension (six months) of the project is recommended.** This will help to compensate for the delays in inception stage and help achieve the outputs and outcomes outlined in the project. * The No-Cost-Extension may be best utilized to capture lessons and impacts for sharing and dissemination. |

This review is carried out by Oxford Policy Management. The Project Manager is Ajith Radhakrishnan. For further information, contact ajith.radhakrishnan@opml.co.uk

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Annexure to the

Mid Term Report

**ANNEX 1: MTR ITINERARY**

|  |  |  |
| --- | --- | --- |
| 14-11-2016 | Monday | Delhi-Paro-Thimphu |
| 15-11-2016 | Tuesday | FN: Project Manager, DRR at UNDP CO AN: PMU Meeting |
| 16-11-2016 | Wednesday | FN: Visit to DHMS, NFWWFC AN: Visit to Project Sites – AWLS and AWS installations |
| 17-11-2016 | Thursday | Thimphu – Bumthang – Mongar |
| 18-11-2016 | Friday | Meet Mongar Project Manager, Dzonghak, Site Visits |
| 19-11-2016 | Saturday | Visit Khengkhar, Community Rainwater Harvesting units |
| 20-11-2016 | Sunday | Visit Moshi Landslide Areas and Plantations  Halt at Samdrup Jongkhar |
| 21-11-2016 | Monday | Samdrup Jongkhar to Phuntsoling |
| 22-11-2016 | Tuesday | Meeting with Project personnel  Visit Soil Nailing Sites, Meeting with CST, Visit to PIA |
| 23-11-2016 | Wednesday | Phuntsoling to Thimphu  Meet Darla CBDRM institution  Meet CFFM groups, Thimphu |
| 24-11-2016 | Thursday | Thimphu |
| 25-11-2016 | Friday | Presentation of Initial Findings, Feedback solicitation from PMU |
| 26-11-2016 | Saturday |  |
| 27-11-2016 | Sunday |
| 28-11-2016 | Monday | Mission Wrap-up meeting |
| 29-11-2016 | Tuesday | Travel to Delhi |
| 05-12-2016 | Monday | Submission of Final Draft Report |
| 08-12-2016 | Thursday | Feedback solicitation |
| 09-12-2016 | Friday |

**ANNEX 2: LIST OF PERSONS INTERVIEWED**

|  |  |  |
| --- | --- | --- |
| # | Agency | Name of Person |
| Implementing Partners |  |
| 1 | Department of Disaster Management | Keshap Moktan |
| 2 | Department of Forests and Park Services | R.B. Mongar |
| 3 | Department of Geology and Mines | Tashi Tenzin |
| 4 | Department of Geology and Mines | Yonten Phuntsho |
| 5 | WRCD, National Environment Commission | Tshewang Lhamo |
| 6 | Tarayana Foundation | Roseleen gurung |
| 7 | Tarayana Foundation | Jamyang Phuntsho |
| 8 | Department of Engineering Services | Gita Maya Sunwar |
| 9 | Department of Hydromet Services | Dema yangzom |
| 10 | Mongar Thromde | Dzongda |
| 11 | District Engineer | Mr. Ram Bdr. Darjee |
| 12 | Project Engineer | Tshering Phuntsho |
| 13 | Tarayana Foundation (Kenkhar) | Mr. Passang |
| 14 | Kenkhar Community 1 | FGD 1 (15 community members) |
| 15 | Kenkhar Community 2 | FGD 2 (15 community members) |
| 16 | Moshi Primary School | Sherab Lhendup (Principal) |
| 17 | Phuntsholing Thromde | Gautam Moktan |
| 18 | Phuntsholing Thromde | Wangchuk thaye (Executive Secretary) |
| 19 | Phuntsholing Thromde | D.C Dhimal (Project Coordinator) |
| 20 | PIA Residents | FGD 3 Pasakha BFAL residents |
| 21 | Green Public Procurement | Yeshey Penjor |
| 22 | PMU/Board Member | Chime Payden |
| 23 | Helvetas | Tashi Pema |
| 24 | Khasakha Thimphu Forest Fire Group | FGD 4 (8 community members) |

**ANNEX 3: LIST OF DOCUMENTS REVIEWED**

1. Project Document
2. Project Inception Report
3. Environmental and Social Screening Summary
4. Project Implementation Review Reports
5. Project Board Meeting Minutes (Meetings 1-4)
6. Review and Planning Workshop (1-9)
7. Field Reports (NAPA II Writeshop Report, Tour Reports, Training Reports)
8. Consolidated Training Summary Report
9. Quarterly Progress Reports (Q1 2015 to Q2 2016)
10. Technical Advisory Committee Meeting Minutes
11. GEF Guidance Mid Term Review
12. Bhutan Water Policy 2007
13. National Irrigation Policy (Revised Draft) 2011
14. Bhutan Vision 2020
15. National Forest Policy (Draft) 2010
16. Food Act of Bhutan 2005
17. Dzongkhag Disaster Management Plan 2014
18. Web resources – District profiles,
19. Tarayana Foundation resources,
20. RGoB online resources, DHMS website, NECS website
21. Asian Disaster Preparedness Center, Resources

**ANNEX 4: EVALUATION MATRIX**

Review Questions and Proposed Methodology

The main research question of the Review is: ***to what extent the project is helping enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards reducing potential losses of human lives, national economic infrastructure, livelihoods, and assets in Bhutan?***

In the next table, we present the main research sub-questions and the review team’s overall approach to assess to what extent has the project achieved its main objective, by taking into consideration the different data sources. The research sub-questions set out below draw on the TORs and our kick-off meetings and aim to capture the top priority issues.

| Key review questions | Documents | Stakeholder interviews | Data | Fieldwork |
| --- | --- | --- | --- | --- |
| TOR question: Effectiveness. To what extent does evidence suggest that programme outputs are contributing towards desired outcomes and the programme has made a credible contribution to disaster risk reduction? | | | | |
| To what extent has the programme successfully increased government capacity to respond to climate-induced disasters?   * To what extent has the project activities led to reduction in climate-induced risks? * Has the project resulted in mapping geo-hazards and vulnerability? * Does the project lead to capacity building in risk mitigation? | * Annual/Quarterly reviews | * Interviews with government agencies, development partners and informed sector commentators | * M&E data (project reports, reviews), * MIS data | * District officials. Stakeholders * Site-visits |
| To what extent has the programme increased local capacity to respond to climate change risks?   * To what extent DRM has been integrated in local level development priorities/plan? * How effective are the new community- institutions for NRM and DRM? Are the benefits sustainable? | * Project Reports * CBO documents * Annual reviews | * Project staff, Government (ministry, district, Dzongkhag staff) Donors | * M&E data (project reports, reviews), * MIS data | * District officials. * Focus groups, beneficiary interviews |
| To what extent has the programme strengthened local action to increase disaster preparedness?   * Has adaptive capacity of communities been increased by sharing of Hydro-met/Agro-met advisories? Have the agencies set out a clear assessment of the climate risks facing that locality? * Have the project activities led to improving the quality, analysis and dissemination of climate information across climate-sensitive development sectors on a timely and reliable basis? * Have the activities had impact on these risks? Will the benefits be sustained? Will they have impact on future, as well as current, climate risks? | * Annual reviews | * Interviews with government agencies, development partners and informed sector commentators | * M&E data (project reports, reviews), * MIS data (meta-analysis of mapping of activities against targets), * Analysis of a sample of Weather infrastructure | * District officials. Focus groups |
| TOR question: Efficiency. How well has the project led to converted inputs into outputs? | | | | |
| To what extent are the programme operating modalities:   * Well designed and implemented * How well does the programme structure/assurance framework enable us to manage fiduciary risk?   The programme operating modalities we will look at are:   * Project strategy * Reporting, monitoring and evaluation * Donor coordination and reporting systems * Communications * Budgeting, financial approvals * Procurement * Accounting * Capacity building | Project report review (including fiduciary risk document, annual review) | Project staff interviews (technical, finance and management)  Interview with stakeholders (ministry, districts and communities)  Discussion with development partners | M&E data (project reports, reviews),  MIS data  Case studies by the projects (if any) | District officials/ village official |
| To what extent has:   * Project assumptions/outputs contributed to achieving outcomes and outputs? * Project addressed country priorities? * Gender-mainstreaming been incorporated? | Annual reviews, project reporting | Interviews with government agencies, development partners and beneficiaries | M&E data (project reports, reviews),  MIS data | District officials |
| Management Arrangements:   * Have changes been made thus far effective? * Are responsibilities and reporting lines clear?   Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.   * Has the quality of implementing partner and support by UNDP been adequate?   Work Planning:   * Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved. * Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results? * Examine the use of the project’s results framework/ logframe as a management tool and review any changes made to it since project start.   *Finance and co-finance:*   * Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions. * Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions. * Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds? * Is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?   Project-level Monitoring and Evaluation Systems:   * Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive? * Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?   *Stakeholder Engagement:*   * Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders? * Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation? * Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?   *Reporting:*   * Assess how adaptive management changes have been reported by the project management and shared with the Project Board. * Assess how well the Project Team and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?) * Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.   Communications:   * Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results? * Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?) | Gov reports, meeting minutes and  Relevant inception documents  Quarterly Progress Reports  Results Based Framework  PIR Reports, Progress Reports and MTR presentations  Prodoc, Meeting minutes  Project Board meeting minutes  Prodoc, Results Based Framework, Inception Report  PB Meeting minutes  Quarterly Progress Reports  Prodoc, Minutes of Project Board Meeting, Success stories and progress reports  Prodoc, Inception report, Quarterly progress reports  GEF reporting requirements  Quarterly progress reports, PIR, inception report  Prodoc, Progress Reports and Implementation reviews, Inception report  Facebook posts | Interview with government officials and project staff, PMU  Interview with government officials and project staff  Interview with government officials and project staff  PMU interviews, Interactions with stakeholders/implementing partners  Interaction with Implementing partners  Estimation from Key Informant Interviews, FGDs  PMU, Key Informant Interviews, Discussion with project implementing partners  FGDs with stakeholders. Key Informant Interviews  PMU, Implementing partners, PB members, Facebook posts for NAPA II project, audience reach  Implementing partners and PMU  Discussions with PMU members, PB representatives  PMU and implementation partners, Writeshop reports  Implementation partners, PMU  --do- | M&E data and MIS data  Progress reports  Expenditure reports in progress reports  Budget numbers from planning documents  Methodology and tools from the  PIR reports, Inception Report  Budget data from Prodoc (project budget) for management arrangements  Participation rates, no of meetings, gender representation  Reporting requirements, frequency, data and  Frequency, nature of reporting, scope  Content analysis, Frequency and nature of reporting | District officials/ village official/ other stakeholders |
| How effective are the M&E systems in the programme with respect to the capture of activity and output level data. | Review of annual reports/ other synthesis report (if any) | Discussion among the review team and triangulation with UNDP and government officials | QPRs, MIS, UNDP initiation plan, | -Site-level data recording |
| What are the key recommendations as to how programme operating modalities, governance structure, planning and decision making mechanisms, and donor mechanisms could be improved in next phase? Where has the programme been innovative? | Review of annual reports/ other synthesis report (if any) | Discussion among the review team and triangulation with UNDP and government officials | QPRs, MIS, UNDP initiation plan, | -Site-level data recording |
| Economy: To what extent is the programme sustainable? | | | | |
| *Financial Risks to Sustainability*   * What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project’s outcomes)? | Project reporting | Donors, UNDP, government | MIS data | Dzongkhag officials |
| Were the procurement systems effective at national and local level? How could procurement systems be improved in phase 2? | Prodoc, Procurement guidelines in RGoB | KIIs with Implementation Partners | Progress reports, PB reports | - |
| What are the key socio-economic, institutional and environmental risks to sustainability? | Donor reviews, fiduciary risk documents | UNDP, government | MIS data | District officials |

**ANNEXURE 5: UNDP-GEF Midterm Review Terms of Reference**

1. **INTRODUCTION**

This is the Terms of Reference (ToR) for the UNDP-GEF Midterm Review (MTR) of the *full* sized project titled ***Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions*** *(*PIMS 4760) implemented through the *National Environment Commission Secretariat*, which is to be undertaken in *2014*. The project started on the *18th April, 2014* and is in its *third* year of implementation. In line with the UNDP-GEF Guidance on MTRs, this MTR process was initiated before the submission of the second Project Implementation Report (PIR). This ToR sets out the expectations for this MTR. The MTR process must follow the guidance outlined in the document *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* .

**2. PROJECT BACKGROUND INFORMATION**

*Bhutan is among the countries most vulnerable to climate change in the Asia-Pacific region because of its vulnerable mountain terrain and volatile ecosystems. The country is exposed to multiple hazards, in particular glacial lake outburst floods resulting from glacial melting, flash floods, landslides, windstorms, forest fires, localized changes in rainfall patterns and increasing droughts during dry season. Climate change is projected to significantly magnify the intensity and frequency of these hazards, as has already been evidenced by for example the glacial lake outburst flood of Lugge Tsho in 1994 and more recently the high intensity cyclone Aila which caused major damages in Bhutan in 2009. The National Adaptation Programme of Action, Second National Communication and National Human Development Report 2011 give an account of a number of recent, climate-related disaster events that have impacted national and local economies and livelihoods.*

*This project has been conceived with the objective to enhance national, local and community capacity to prepare for and respond to climate-induced multi-hazards to reduce potential losses of human lives, national economic infrastructure, livelihoods and livelihood assets. The project has been designed to address the immediate and urgent climate change adaptation needs prioritized through the update of the NAPA undertaken in 2011, involving review and updating of the earlier NAPA produced in 2006. It has three broad outcomes.*

*The first outcome will focus on demonstrating effective practical measures to reduce flood and landslide risks in Phuentsholing and the adjoining industrial estate of Pasakha, which are the economic and industrial hubs of the country as well as among the most critical areas that are recurrently besieged by floods and landslides. This outcome will also be devoted to systematic assessment and mapping of geo-hazard risks in four other critical flood- and landslide-prone areas in the country in order to build the information base for planning flood and landslide risk mitigation in those areas, as well as in other areas that are vulnerable to similar risks.*

*The second outcome is aimed at enhancing community resilience to climate-induced risks. This will include designing and building or rehabilitating systems for water harvesting, storage and distribution in selected villages and towns which face water scarcity, community-level water resources inventory to create the information base for water resource management, and strengthening disaster management institutions at national and local levels with training and development of community-based disaster management plans.*

*The third outcome is dedicated to improving the quality, analysis and dissemination of climate information across climate-sensitive development sectors on a timely and reliable basis to aid climate change adaptation planning and to enhance preparedness and response to extreme weather events. This will involve expanding and upgrading the network of meteorological stations for real-time weather observation and forecasting, and strengthening the National Weather and Flood Forecasting and Warning Center with the capacity to analyze, manage and disseminate climate information in a timely manner.*

**3. OBJECTIVES OF THE MTR**

The MTR will assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The MTR will also review the project’s strategy, its risks to sustainability.

**4. MTR APPROACH & METHODOLOGY**

The MTR must provide evidence based information that is credible, reliable and useful. The MTR team will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Environmental & Social Safeguard Policy, the Project Document, project reports including Annual Project Review/PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based review). The MTR team will review the baseline GEF focal area Tracking Tool submitted to the GEF at CEO endorsement, and the midterm GEF focal area Tracking Tool that must be completed before the MTR field mission begins.

The MTR team is expected to follow a collaborative and participatory approach[[4]](#footnote-5) ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), the UNDP Country Office(s), UNDP-GEF Regional Technical Advisers, and other key stakeholders.

Engagement of stakeholders is vital to a successful MTR.[[5]](#footnote-6) Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to Phuntsholing Thromde, Mongar Municipality, Department of Geology and Mines, Department of Engineering Services, Tarayana Foundation, Department of Forests and Park Services, Department of Disaster Management, Department of Hydromet Services, and the National Environment Commission Secretariat; executing agencies, senior officials and task team/ component leaders, key experts and consultants in the subject area, Project Board, project stakeholders, academia, local government and CSOs, etc. Additionally, the MTR team is expected to conduct field missions to Thimphu, Mongar, Trashigang, Phuntsholing, Chukha*,* including the following project sites *Khenkhar, Mongar, Wamrong, Phuntsholing, Pasakha, Chukha and Khasakha*.

The final MTR report should describe the full MTR approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the review.

**5. DETAILED SCOPE OF THE MTR**

The MTR team will assess the following four categories of project progress. See the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for extended descriptions.

1. **Project Strategy**

Project design:

* Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
* Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?
* Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?
* Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?
* Review the extent to which relevant gender issues were raised in the project design. See Annex 9 of *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for further guidelines.
* If there are major areas of concern, recommend areas for improvement.

Results Framework/Logframe:

* Undertake a critical analysis of the project’s logframe indicators and targets, assess how “SMART” the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.
* Are the project’s objectives and outcomes or components clear, practical, and feasible within its time frame?
* Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women’s empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis.
* Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART ‘development’ indicators, including sex-disaggregated indicators and indicators that capture development benefits.

1. **Progress Towards Results**

Progress Towards Outcomes Analysis:

* Review the logframe indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*; colour code progress in a “traffic light system” based on the level of progress achieved; assign a rating on progress for each outcome; make recommendations from the areas marked as “Not on target to be achieved” (red).

Table. Progress Towards Results Matrix (Achievement of outcomes against End-of-project Targets)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Strategy** | **Indicator**[[6]](#footnote-7) | **Baseline Level**[[7]](#footnote-8) | **Level in 1st PIR (self- reported)** | **Midterm Target**[[8]](#footnote-9) | **End-of-project Target** | **Midterm Level & Assessment**[[9]](#footnote-10) | **Achievement Rating**[[10]](#footnote-11) | **Justification for Rating** |
| **Objective:** | Indicator (if applicable): |  |  |  |  |  |  |  |
| **Outcome 1:** | Indicator 1: |  |  |  |  |  |  |  |
| Indicator 2: |  |  |  |  |  |
| **Outcome 2:** | Indicator 3: |  |  |  |  |  |  |  |
| Indicator 4: |  |  |  |  |  |
| Etc. |  |  |  |  |  |
| **Etc.** |  |  |  |  |  |  |  |  |

**Indicator Assessment Key**

|  |  |  |
| --- | --- | --- |
| Green= Achieved | Yellow= On target to be achieved | Red= Not on target to be achieved |

In addition to the progress towards outcomes analysis:

* Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review.
* Identify remaining barriers to achieving the project objective in the remainder of the project.
* By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

**iii. Project Implementation and Adaptive Management**

Management Arrangements:

* Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.
* Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
* Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas for improvement.

Work Planning:

* Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
* Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?
* Examine the use of the project’s results framework/ logframe as a management tool and review any changes made to it since project start.

Finance and co-finance:

* Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.
* Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
* Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
* Informed by the co-financing monitoring table to be filled out, provide commentary on co-financing: is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?

Project-level Monitoring and Evaluation Systems:

* Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
* Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?

Stakeholder Engagement:

* Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?
* Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
* Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

Reporting:

* Assess how adaptive management changes have been reported by the project management and shared with the Project Board.
* Assess how well the Project Team and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)
* Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

Communications:

* Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
* Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)
* For reporting purposes, write one half-page paragraph that summarizes the project’s progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.

**iv. Sustainability**

* Validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
* In addition, assess the following risks to sustainability:

Financial risks to sustainability:

* What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project’s outcomes)?

Socio-economic risks to sustainability:

* Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project? Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

* Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.

Environmental risks to sustainability:

* Are there any environmental risks that may jeopardize sustenance of project outcomes?

**Conclusions & Recommendations**

The MTR team will include a section of the report setting out the MTR’s evidence-based conclusions, in light of the findings.[[11]](#footnote-12)

Recommendations should be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table should be put in the report’s executive summary. See the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for guidance on a recommendation table.

The MTR team should make no more than 15 recommendations total.

**Ratings**

The MTR team will include its ratings of the project’s results and brief descriptions of the associated achievements in a *MTR Ratings & Achievement Summary Table* in the Executive Summary of the MTR report. See Annex E for ratings scales. No rating on Project Strategy and no overall project rating is required.

Table. MTR Ratings & Achievement Summary Table for (Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions)

|  |  |  |
| --- | --- | --- |
| **Measure** | **MTR Rating** | **Achievement Description** |
| **Project Strategy** | N/A |  |
| **Progress Towards Results** | Objective Achievement Rating: (rate 6 pt. scale) |  |
| Outcome 1 Achievement Rating: (rate 6 pt. scale) |  |
| Outcome 2 Achievement Rating: (rate 6 pt. scale) |  |
| Outcome 3 Achievement Rating: (rate 6 pt. scale) |  |
| Etc. |  |
| **Project Implementation & Adaptive Management** | (rate 6 pt. scale) |  |
| **Sustainability** | (rate 4 pt. scale) |  |

1. **TIMEFRAME**

The total duration of the MTR will be approximately *25 days* over a time period of *6 weeks* starting *13/10/2016,* and shall not exceed five months from when the consultant(s) are hired. The tentative MTR timeframe is as follows:

|  |  |
| --- | --- |
| **TIMEFRAME** | **ACTIVITY** |
| *(26/09/2016)* | Application closes |
| *(30/09/2016)* | Select MTR Team |
| *(03/10/2016)* | Prep the MTR Team (handover of Project Documents) |
| *(04-06/10/2016) 3 days* | Document review and preparing MTR Inception Report |
| *(19/10/2016) 1 day* | Finalization andValidation of MTR Inception Report- latest start of MTR mission |
| *20/10/2016 - 01/11/2016 (12 days)* | MTR mission: stakeholder meetings, interviews, field visits |
| *02/11/2016* | Mission wrap-up meeting & presentation of initial findings- earliest end of MTR mission |
| *(03-07/09/2016) 5 days* | Preparing draft report |
| *(08/11/2016) 1 days* | Incorporating audit trail from feedback on draft report/Finalization of MTR report |
| *(09/11/2016)* | Preparation & Issue of Management Response |
| *(10/11/2016)* | Expected date of full MTR completion |

Options for site visits should be provided in the Inception Report.

1. **MIDTERM REVIEW DELIVERABLES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Deliverable** | **Description** | **Timing** | **Responsibilities** |
| **1** | **MTR Inception Report** | MTR team clarifies objectives and methods of Midterm Review | No later than 2 weeks before the MTR mission: (06/10/2016) | MTR team submits to the Commissioning Unit and project management |
| **2** | **Presentation** | Initial Findings | End of MTR mission: (10/11/2016) | MTR Team presents to project management and the Commissioning Unit |
| **3** | **Draft Final Report** | Full report (using guidelines on content outlined in Annex B) with annexes | Within 4 weeks of the MTR mission: (16/11/2016) | Sent to the Commissioning Unit, reviewed by RTA, Project Coordinating Unit, GEF OFP |
| **4** | **Final Report\*** | Revised report with audit trail detailing how all received comments have (and have not) been addressed in the final MTR report | Within 1 week of receiving UNDP comments on draft: | Sent to the Commissioning Unit |

\*The final MTR report must be in English. If applicable, the Commissioning Unit may choose to arrange for a translation of the report into a language more widely shared by national stakeholders.

1. **MTR ARRANGEMENTS**

The principal responsibility for managing this MTR resides with the Commissioning Unit. The Commissioning Unit for this project’s MTR is *UNDP Bhutan Country Office.*

The commissioning unit will contract the consultants and ensure the timely provision of per diems and travel arrangements within the country for the MTR team. The Project Team will be responsible for liaising with the MTR team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.

1. **TEAM COMPOSITION and QUALIFICATION**

The proposed assignment shall be carried out by **an international consulting firm,** to be recruited in accordance with the UNDP’s Guidelines on the hiring of consulting firm and implemented over a period of up to **six weeks** as indicated in the relevant section of this ToR. The International consultancy firm is required to form a team composition of one **lead International expert** and **one National expert.**

The consultants cannot have participated in the project preparation, formulation, and/or implementation (including the writing of the Project Document) and should not have a conflict of interest with project’s related activities.

The consulting firm will be responsible for the final deliverables in terms of the inception report, draft reports, and final report.

* 1. The consulting firm shall have prior experience in conducting similar assignments, and should possess the following:

1. Should be a registered consultancy firm
2. Previous experience in conducting midterm review of projects related to climate change in the region.
3. Experience working with the GEF or GEF-evaluations;

9.2 The team leader/International Consultant should possess the following attributes:

1. Recent experience with result-based management evaluation methodologies;
2. Experience applying SMART indicators and reconstructing or validating baseline scenarios;
3. Competence in adaptive management, as applied to (*Climate Change Adaptation*);
4. Experience working with the GEF or GEF-evaluations;
5. Experience working in (*south east asia*);
6. Work experience in relevant technical areas for at least 10 years;
7. Demonstrated understanding of issues related to gender and (*Climate Change Adaptation*); experience in gender sensitive evaluation and analysis.
8. Excellent communication skills;
9. Demonstrable analytical skills;
10. Project evaluation/review experiences within United Nations system will be considered an asset;
11. A Master’s degree in Environmental Science, Climate Change Adaptation, Sustainable Development, Energy Management, Development Studies or relevant discipline, or other closely related field, or other closely related field.
    1. The local consultant should possess the following attributes:
12. Recent experience with result-based management evaluation methodologies;
13. Experience applying SMART indicators and reconstructing or validating baseline scenarios;
14. Competence in adaptive management, as applied to (Climate Change Adaptation);
15. Experience working with the GEF or GEF-evaluations;
16. Work experience in relevant technical areas for at least 5 years;
17. Demonstrated understanding of issues related to gender and (Climate Change Adaptation); experience in gender sensitive evaluation and analysis.
18. Excellent communication skills;
19. Demonstrable analytical skills;
20. Project evaluation/review experiences within United Nations system will be considered an asset;
21. A Master’s degree in Environmental Science, Climate Change Mitigation, Sustainable Development, Energy Management, Development Studies or relevant discipline, or other closely related field.

The selection of consultancy firm will be based on the following criteria:

| **Criteria** | **Weight** | **Max. Point** |
| --- | --- | --- |
| **Technical**  The technical assessment will be based on the following criteria:   1. Expertise and experience of the consulting firm [Note: will be assessed based on expertise available and similar assignments undertaken by the firm]; 2. Technical competency of the team leader [Note: will be assessed based on the criteria listed in the experience under team composition and qualification] 3. Technical competency of the l [Note: will be assessed based on the expertise available with the firm as listed in team composition and qualification] 4. Quality of technical proposal | 60 | 15  15  15  15 |
| **Sub-total A. (Technical)** |  | **60** |
| Financial | 40 | 40 |
| **Sub-Total B.(Financial)** |  | **40** |
| **Total (A+B)** |  | **100** |

1. **PAYMENT MODALITIES AND SPECIFICATIONS**
2. 10% of payment upon approval of the final MTR Inception Report
3. 30% upon submission of the draft MTR report
4. 60% upon finalization of the MTR report
5. **APPLICATION PROCESS**[[12]](#footnote-13)

**Recommended Presentation of Proposal:**

1. A brief background of the applicant firm and a letter of intent;;
2. Evidence of past experience in undertaking similar assignments (from past clients);
3. **Brief description of approach to work/technical proposal** and a proposed methodology on how they will approach and complete the assignment; (max 1 page)
4. **Financial Proposal** that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem, etc), supported by a breakdown of costs,

All application materials should be emailed to [procurement.bt@undp.org](mailto:procurement.bt@undp.org) This email address is being protected from spam bots, you need Javascript enabled to view it by ***5.30 pm on 26 September, 2016.*** Incomplete applications will be excluded from further consideration.

**Criteria for Evaluation of Proposal:** Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 60%and the price proposal will weigh as 40% of the total scoring. The proposal receiving the Highest Combined Score that has also accepted UNDP’s General Terms and Conditions will be awarded the contract.

**ToR ANNEX A: List of Documents to be reviewed by the MTR Team**

1. PIF
2. UNDP Initiation Plan
3. UNDP Project Document
4. UNDP Environmental and Social Screening results
5. Project Inception Report
6. All Project Implementation Reports (PIR’s)
7. Quarterly progress reports and work plans of the various implementation task teams
8. Audit reports
9. Finalized GEF focal area Tracking Tools at CEO endorsement and midterm
10. Oversight mission reports
11. All monitoring reports prepared by the project
12. Financial and Administration guidelines used by Project Team

The following documents will also be available:

1. Project operational guidelines, manuals and systems
2. UNDP country/countries programme document(s)
3. Minutes of the (***Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions*** Board Meetings and other meetings (i.e. Project Appraisal Committee meetings)
4. Project site location maps

**ToR ANNEX B: Guidelines on Contents for the Midterm Review Report**[[13]](#footnote-14)

|  |  |  |  |
| --- | --- | --- | --- |
| **i.** | Basic Report Information *(for opening page or title page)*   * Title of UNDP supported GEF financed project * UNDP PIMS# and GEF project ID# * MTR time frame and date of MTR report * Region and countries included in the project * GEF Operational Focal Area/Strategic Program * Executing Agency/Implementing Partner and other project partners * MTR team members * Acknowledgements | | |
| **ii.** | Table of Contents | | |
| **iii.** | Acronyms and Abbreviations | | |
| **1.** | Executive Summary *(3-5 pages)*   * Project Information Table * Project Description (brief) * Project Progress Summary (between 200-500 words) * MTR Ratings & Achievement Summary Table * Concise summary of conclusions * Recommendation Summary Table | | |
| **2.** | Introduction *(2-3 pages)*   * Purpose of the MTR and objectives * Scope & Methodology: principles of design and execution of the MTR, MTR approach and data collection methods, limitations to the MTR * Structure of the MTR report | | |
| **3.** | Project Description and Background Context *(3-5 pages)*   * Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope * Problems that the project sought to address: threats and barriers targeted * Project Description and Strategy: objective, outcomes and expected results, description of field sites (if any) * Project Implementation Arrangements: short description of the Project Board, key implementing partner arrangements, etc. * Project timing and milestones * Main stakeholders: summary list | | |
| **4.** | Findings *(12-14 pages)* | | |
| **4.1** | Project Strategy   * Project Design * Results Framework/Logframe | |
| **4.2** | Progress Towards Results   * Progress towards outcomes analysis * Remaining barriers to achieving the project objective | |
| **4.3** | Project Implementation and Adaptive Management   * Management Arrangements * Work planning * Finance and co-finance * Project-level monitoring and evaluation systems * Stakeholder engagement * Reporting * Communications | |
| **4.4** | Sustainability   * Financial risks to sustainability * Socio-economic to sustainability * Institutional framework and governance risks to sustainability * Environmental risks to sustainability | |
| **5.** | Conclusions and Recommendations *(4-6 pages)* | | |
|  | **5.1** | | Conclusions   * Comprehensive and balanced statements (that are evidence-based and connected to the MTR’s findings) which highlight the strengths, weaknesses and results of the project |
| **5.2** | | Recommendations   * Corrective actions for the design, implementation, monitoring and evaluation of the project * Actions to follow up or reinforce initial benefits from the project * Proposals for future directions underlining main objectives |
| **6.** | Annexes   * MTR ToR (excluding ToR annexes) * MTR evaluative matrix (evaluation criteria with key questions, indicators, sources of data, and methodology) * Example Questionnaire or Interview Guide used for data collection * Ratings Scales * MTR mission itinerary * List of persons interviewed * List of documents reviewed * Co-financing table (if not previously included in the body of the report) * Signed UNEG Code of Conduct form * Signed MTR final report clearance form * *Annexed in a separate file:* Audit trail from received comments on draft MTR report * *Annexed in a separate file:* Relevant midterm tracking tools (*METT, FSC, Capacity scorecard, etc.)* | | |

**ANNEX 5: CASES ON ADAPTIVE MANAGEMENT IN PLANNING AND IMPLEMENTATION**

**Adaptive Management in Community Action: Khengkhar**

The water source for Khengkhar Gewog under Mongar Dzongkhag is located 27 km away from the village. Non-availability of water has posed many problems for the communities in Khengkhar including: losses in farm yield, vulnerability to water-borne diseases, increased drudgery for women and losses in attendance rates for school-going kids are some of the consequences of this constraint.

NAPA II interventions in Khengkhar has helped mobilize communities and design water harvesting solutions using adaptive management approaches. ***Tarayana Foundation***, an implementing partner for NAPA II project mobilized the village communities by way of extensive consultation, using a participatory approach (Output 2.2). The approach helped evaluate the problems systematically and explore options and choices. The communities decided to protect sources and use a network of water harvesting structures with traditional filters tapping the gravitational flow.

Source protection, along with plantations in the region are expected to reduce sedimentation and preserve water quality. Watershed protection and management through fencing (15 acres) and plantations were carried out in all water sources. This is also seen as a risk mitigation mechanism for reduced water availability in winter and offseason months.

With the success in water access and watershed management, there is increasing demand from neighboring villages for scaling up of the project given the current water shortage issues and similar pre-project status in Jurmey (320 households with a need for 4 water reservoirs) and Pimphu (19 households with needs for pipelines to complement the existing pumps and reservoirs). Around 200 households surrounding Morong have also voiced for need of similar project initiatives.



**Adaptive Management in Planning: Gewog**



Acres of agricultural land and domestic products (including rice, farm animals, vegetables and spices) were destroyed by the floods and landslides in the Gewog this year, significantly impairing the livelihoods of affected communities. NAPA II investments in landslide stabilization and flood management (outputs 1.1, 1.2) have important trans-boundary implications, as the many rivers converge before they drain to the plains of India.

Project delivery mechanisms and strategies play a highly significant role in determining the impact of interventions. NAPA II has employed an Adaptive Management (AM) process to achieve delivery of outputs. **Adaptive Management is a structured, iterative process of robust decision making with an aim to reducing uncertainty over time and accounting for future risks in implementation.**

The adaptive management process, NAPA II has put in action in *Thromde* involves (a) ***Engaging the key stakeholders in the decision making process*** including line departments, local expert institutions such as College for Science and Technology (CST) and local monastery (b) ***Identifying the problem to be addressed and specifying objectives and tradeoffs that capture the values for stakeholders*** –included evaluating various options for slope stabilization and gully plugs in different locations (c) ***Identifying the range of decision alternatives*** (soil nailing, gabion structures, check dams) from which actions are to be selected (d) ***Projecting the consequences of alternative actions and identifying key uncertainties and risks*** (e) ***Accounting for future impacts*** of present decisions.

**ANNEX 6: FIELD VISITS**

Description of Plates:

1. *Source of Drinking water supply scheme damaged by floods, Mongar*
2. *Check dam atIndo-Bhutan border*
3. *Transect walk, Khengkhar*
4. *Land movement on Karbandi Monastery, Gewog*
5. *FGD @ Pasakha Industrial Area*
6. *Dredging impacting flood plains in PIA*
7. *FGD @ Darla*
8. *FGD @ Khasakha, Thimphu*
9. *CFFM Discussions @Khasakha, Thimphu*
10. *AWS, Thimphu*

**ANNEX 7: STAKEHOLDER ENGAGEMENT STRATEGIES IN THE PROJECT**

We highlight three distinct models of stakeholder engagement under outputs 2.1, 2.2, and 2.3 to contrast and distil an optimal solution set.

**ANNEX 8: COMMENTS AND CHANGES MADE TO COMPLY WITH CORRECTIONS SUGGESTED**

**1.** Sirintharat Wannawong (SW): Counting 48 months from prodoc signature date.

2. Ajith Radhakrishnan (AR) Corrected.

3. Ugyen Dorji (UD): Source?

4. AR: PIR (Sep 2016) – Latest made available to MTR. See info on Pg 2 (Basic Project and Finance Data) indicating disbursal in June 16.

5. Jessie Mee (JM): Though no rating is expected here (as done), narrative is expected. Please provide in the “achievement description” column.

6. AR: Agree. Done.

7. JM: Please select a single rating for each category/criterion. This is not acceptable for this and the four following ratings.

8. AR: Agree. Done.

9. JM: The rating for sustainability cannot be higher than the lowest rating of the four dimensions. Please give only that single rating.

10. AR: The ratings are now adjusted against the UNDP guidelines. On sustainability, the scale is 1-4.

11. JM: Please make it clear that this is being used as a short name for the project under review.

12. AR: Done

13. UD: Which second phase of implementation?

14. AR: Addressed. The intent was to mention post-MTR phase of the project.

15. JM: Looks like the pages are out of sequence. Page numbers would be good to add.

16. AR: Done

17. JM: Which “documents”? Please make it clear which docs were reviewed by the MTR team, and refer to the (required) annex with the full list.

18. AR: Addressed. See Annexure

19. UD: The project Manager has on onboard since the PPG phase of the project, i.e January 2012 The project document was signed only in 18th April 2014, foll0wiing CEo endorsement on 24th of March, 2014 .

20. AR: Addressed.

21. JM: The support of UNDP for overall project Quality assurances needs to be highlighted.

22. AR: Done. Changed.

23. JM: Without section numbering, the structure of this report becomes extremely unclear. Please improve this, e.g. by using the numbering I have shown here (though of course use whatever system you prefer).

24. AR: Done; Changed

25. JM: This section is entirely insufficient. Please see the MTR Guidance and revise/expand accordingly. See additional comments below.

26. AR: Addressed. Narrative included and comments addressed.

27. JM: Please use the correct terminology.

28. AR: From ProDoc. No change.

29. JM: This is the section on project strategy, which must focus on the project’s intentions as articulated in the ProDoc. Discussion and analysis of results should not be included in this section, and “impact” – unless fully demonstrated with solid evidence – should not be discussed in the MTR (that is for the TE to assess).

30. AR: Agree. Changed.

31. SW: Please refer to Jessie’s comments. We should simply lay out project strategy as articulated in the Prodoc. We don’t need to give assessment of project strategy here. This paragraph still discuss assessment.

32. AR: Done. Revised with text borrowed from Pro Doc

33. JM: Per the TOR, this section should:

34. Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.

35. Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?

36. Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?

37. Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?

38. Review the extent to which relevant gender issues were raised in the project design. See Annex 9 of Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects for further guidelines.

39. If there are major areas of concern, recommend areas for improvement.

40. It is far too short and has not addressed these questions.

41. AR: Addressed as suggested. Revised sections and have added additional narrative and analyses as suggested.

42. SW: The narrative below only answer the third questions. The rest of the questions are still not answered.

43. AR: All points are addressed. Section revised to include a brief narrative on design, gender and improvements. Gender is separately discussed in section 3.1.3.

44. JM: Further to the previous comment, this report overall lacks analysis and discussion of gender. Please incorporate throughout.

45. AR: Done. Incorporated analyses and discussion.

46. JM: These footnotes should be removed from the final report; they are guidance to the MTR consultants only.

47. AR: Format copied from the guidance note. Done.

48. JM: This column must also include text: the MTR team’s assessment of the current status of the progress, i.e. actual data as verified by the MTR team. This is different from and in addition to the justification given in the last column.

49. Please revise accordingly.

50. AR: Done, Revised accordingly

51. JM: These rating should be at the level of the Objective/Outcome, not at the level of the indicator. Please revise.

52. AR: Done, revised.

53. JM: This does not sound like full achievement of the EOP target. Please explain your ratings.

54. AR: Explanation included. Revised

55. JM: Again, this is not the same as the EOP targets – no mention of the % change floods/costs. So “achieved” does not seem appropriate based on the data presented here. Provide more, better data and improve the analysis.

56. AR: This is the status available from Progress reports. Slope stabilization and flood proofing in progress. Cannot ascertain impact on damage reduction at this point.

57. UD: I feel that this target will not be achieved by the end of the project.

58. AR: Agree completely. Color coding changed accordingly.

59. JM: Where is the 2016 status of these indicators? That is required.

60. AR: Done. Analysis based on 2016 status.

61. JM: Please confirm that all of this has been achieved. The 2016 data do not make that clear, nor does the “justification” from the MTR team.

62. AR: Changed. Done.

63. JM: Are these the same as the “committees” (DMCs) described in the indicator and its target? This is unclear.

64. AR: Explained and changed.

65. JM: Again, this 2016 level does not sound like the indicator’s end-of-project target has been “achieved” as indicated by the green fill. Please improve.

66. AR: Improvements made.

67. JM: Please note that, per the TOR, the following subsections / topics are required:

* Management Arrangements
* Work planning
* Finance and co-finance
* Project-level monitoring and evaluation systems
* Stakeholder engagement
* Reporting
* Communications

68. The highlighted topics are missing or currently insufficient, and must be provided. Please see the MTR Guidance to better understand the expectations for this section.

69. AR: Revisions made. Done.

70. JM: This analysis is entirely insufficient and far too short. Per the TOR, please revise the section to:

71. Undertake a critical analysis of the project’s logframe indicators and targets, assess how “SMART” the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/ revisions to the targets and indicators as necessary.

72. Are the project’s objectives and outcomes or components clear, practical, and feasible within its time frame?

73. Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women’s empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis.

74. Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART ‘development’ indicators, including sex-disaggregated indicators and indicators that capture development benefits.

75. Please see the MTR Guidance for more information on what is expected.

76. AR: Incorporated Analysis, Revisions made.

77. UD: Please check if this was co-financing. The RPW would report expenditure of the GEF funds and not Government co-financing.

78. AR: Updated with the numbers shared by Tshering. We are seriously handicapped with the lack of sufficient information on co-financing, as reported.

79. UD: Figure missing here

80. AR: Included

81. UD: Moderately likely??? (3.4.1)

82. AR: Yes.

83. SW: Not sure how Jessie’s comment is incorporated here. Jessie’s comment is:

84. This appears to be the first mention of this information, not good practice in “Conclusions” section.

85. The MTR Guidance describes this section as follows:

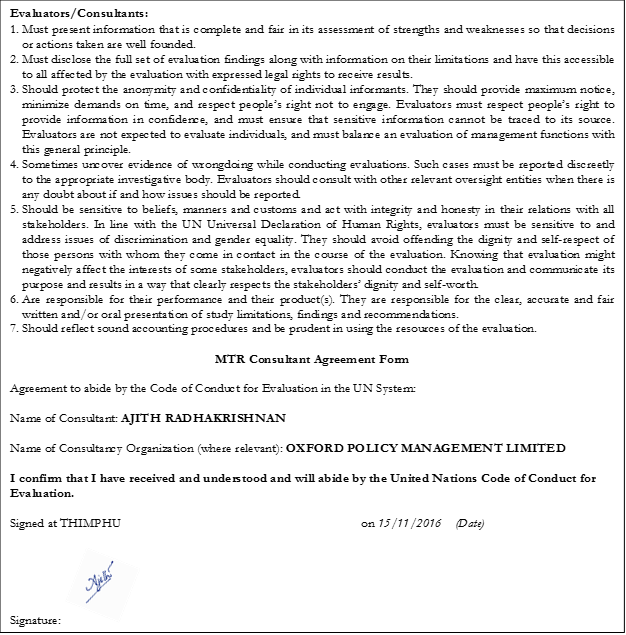
86. The MTR team will include a section of the report setting out their conclusions considering the findings.38 The conclusions should be comprehensive and balanced, and highlight the strengths, weaknesses and results of the project. They should be well substantiated by the evidence gathered and clearly connected to the MTR’s findings. They should respond to MTR questions from the ToR and provide insights into the identification of and/or solutions to important problems or issues pertinent to project stakeholders, including UNDP and GEF (page 22). Please improve.

87. AR: This is not the first mention of this insight. Please refer page 50. This is a dominant theme that has emerged from the MTR and was presented to the Board in November, which took due notice and appreciated the conclusion. Hope the analysis is balanced and succinct.

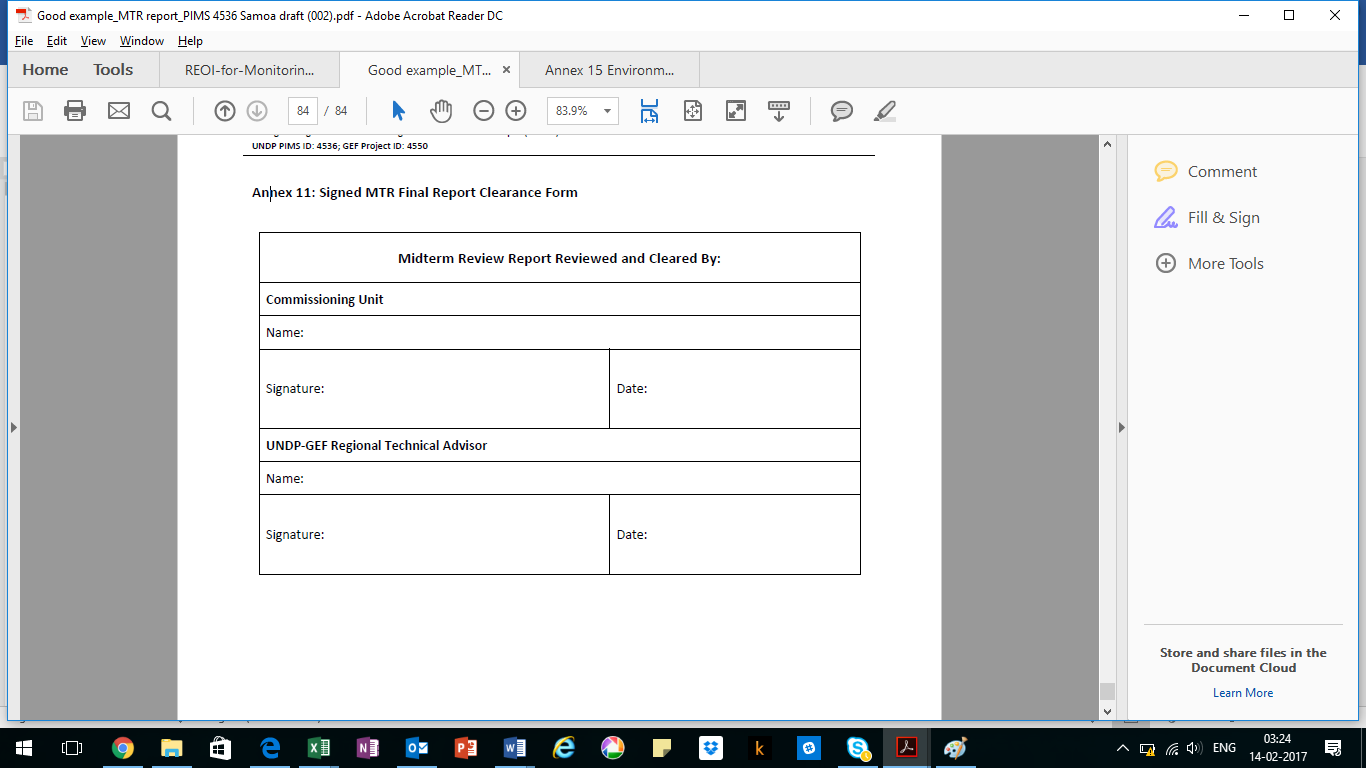
88. SW: Please add MTR TOR as Annex 5.

89. AR: Done.

**Annex 9: Signed** **UNEG Code of Conduct for Evaluators/Midterm Review Consultants**



ANNEX 10: **SIGNED MTR FINAL REPORT CLEARANCE FORM**



**ANNEX 11:** **INTERVIEW QUESTIONS FOR KEY INFORMANTS**

* Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
* Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design? Have you established any linkages with other projects?
* How is stakeholder participation ensured in the project design, implementation stages? How is gender representation ensured?
* What have been the major achievements so far? Challenges, opportunities and way forward? What are some of the co-benefits you have observed?
* Do you think that the project’s objectives and outcomes or components clear, practical, and feasible within its time frame?
* Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.
* How do you handle demands for action from government and local stakeholders? Is there a need analyses/prioritization in the project?
* Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
* Review the quality of support provided by (UNDP) and recommend areas for improvement
  + Types of support (Quality control/design/implementation support)
  + Project Management Communication
  + Feedback and review (how frequent/how content-driven)
* Any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
* How is work planning done? Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?
* Review any changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
* Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
  + What are the financial and management reports that you need to furnish?
  + What is the periodicity of these reports?
  + Are performances linked to review of these reports?
* Is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?
  + How are strategic areas identified for co-financing?
  + Does stakeholder consultation support decision making?

**Project-level Monitoring and Evaluation Systems:**

* + What is currently reviewed?
  + Do they involve key partners? Is it participatory?
  + Do they use existing information? (In comparison with baselines)

**Stakeholder Engagement:**

* + Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?
  + Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? What is the role of national government and stakeholders? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
  + Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

**Reporting:**

* What is the reporting structure now?
  + Kinds of reports, periodicity, scope
  + Reporting lines (Team-Board)
  + Compliance with GEF reporting lines
  + Knowledge management opportunities – how do you capture good practices, case studies and lessons for sharing?

**Communications:**

* How strong is the internal communication? What are the options to collect feedback?
* How often do you interact with stakeholders? What are the means?
* Do you publish project lessons or information on vernacular languages?

**Sustainability**

* How do you identify risks to sustainability?
* What is the likelihood of financial and economic resources not being available once the GEF assistance ends?
* Are there any social or political risks that may jeopardize sustainability of project outcomes?
* What is the risk that the level of stakeholder ownership?
* Are lessons learned being documented and shared with appropriate parties who could learn and potentially replicate and/or scale it?

**ANNEX 12: KAP QUESTIONS FOR CBDM INSTITUTIONS AND FGD STAKEHOLDERS**

|  |  |  |
| --- | --- | --- |
| **DRAFT**  **Organisation/Staff/Knowledge/Attitudes/and/Practices/(KAP)/Survey**  *Adapted from HHI's Hong Kong Study* | | |
| **Q#** | **Question** | **Response Options** |
| **Perceptions of Organizational Preparedness** | | |
| **1** | Does your organization have any disaster drills? | Yes No |
| **2** | How many drills have you participated in during the last year? |  |
| **3** | What was the scale of the largest disaster drills / exercise you have been involved? | Department level  Agency / Institution level  Multiple agencies (inter-agency) Other, please specify: |
| **4** | If a major disaster hits your area and you are off duty, how will your supervisors (director or police commander etc.) contact you for your assistance if the phone and internet are not working? (select all that apply) | Via landline phone  Via radio or TV announcements  They won’t; I am expected to automatically report in person to my office/HQ I don’t know |
| **5** | What are your organization’s roles and responsibilities during a disaster? (select all that apply) | Collate and disseminate data on casualties arising due to the disaster  Assisting people in need of immediate medical assistance and transporting people in need of medical assistance to hospital  Providing volunteers to give medical assistance  To reinforce regular ambulance personnel  Deploying volunteers to assist in operations such as search and rescue, crowd control, registration of victims, casualty handling, evacuation and feeding of disaster victims, etc.  Providing whatever flying services may be required for life-saving, flying of relief supplies, aerial photography, surveillance, casualty evacuation and reconnaissance Supply temporary toilets and dustbins, collection of refuse and maintenance of hygiene in temporary and relief centres  Clearance of dangerous or fallen trees and refuse from open/surface drains  Providing meteorological advice to other departments/agencies  Will arrange for the carrying out of autopsies  Providing food, blankets and other emergency items  Decide whether and if so, at what time schools and kindergartens will be closed  Providing emergency medical services during a natural disaster  Informing all airline companies of the issuance of severe weather warnings/signals Advising Government departments on potential dangers due to natural disaster aftershocks and on measures to deal with them  Originating all weather-related warnings and general precautionary announcements to the public  Other. Please specify: |
| **6** | Who is responsible for the overall coordination of all agencies operating at the scene of a disaster during rescue and recovery phases? | The Senior Police Officer on-site (aka Police Field Commander)  First emergency responder to arrive at the scene  The highest ranking person of all agencies present at the scene  The Senior Fire Officer on-site (aka Rescue Commander)  Other, specify  I don't know |
| **7** | How would you rate your institution’s preparedness? | Excellent  More than adequate  Adequate  Less than adequate  Poor |
| **Individual / Personal Preparedness** | | |
| **8** | I have received training in: (select all that apply) | First aid  CPR (certified)  Basic life support  Advanced life support  Trauma life support  Disaster triage  Appropriate donning, doffing, and disposal of level C PPE  Decontamination  Hazardous material medical response, involving chemical, biological, radioactive, and nuclear substances Psychological first aid Other, please specify:  None of the above |
| **9** | When was the last time you provided first aid to anyone? | 2015  2014  2013  2012  2011  2010  Before 2010  I have never provided first aid to anyone. |

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|  |  |  |
| --- | --- | --- |
| **10** | When was the last time you practiced mock drill (either in a class or real emergency)? | 2015  2014  2013  2012  2011  2010  Before 2010  I have never performed CPR on a person or in class |
| **11** | Have you ever responded to any of the following events in your area or elsewhere? (select all that apply) | Earthquakes  Typhoon  Flooding  Major fire  Infectious disease outbreak  Chemical terrorism  Conventional bombing  Stampede  Civil unrest  Large-scale conflict  Mass shooting  Others, please specify:  None |
| **12** | Over the next five years, which of the following hazards do you think will be the most likely cause of major disaster in your area? | Earthquakes  Typhoon Flooding  Major fire  Infectious disease outbreak  Chemical terrorism  Conventional bombing  Stampede  Civil unrest  Large-scale conflict  Mass shooting  Others, please specify:  None |
| **13** | Do you want to receive more training in: (select all that apply) | Basic life support  Advanced life support  Trauma life support  Field triage  Appropriate donning, doffing, and disposal of level C PPE Decontamination  Hazardous material medical response, involving chemical, biological, radioactive, nuclear and explosive substances Psychological first aid Other, please specify:  I don’t know what most of these terms mean |
| **14** | Your preference on training formats are: (select top 2 choices) | Classroom based short lectures (1-2 hour session)  Hands-on training and workshops (1-2 days)  Written material  Online learning and online simulations  Disaster drills  Other, please specify: |
| **15** | As a responder, how do you rate your current preparedness in responding to a disaster? | Excellent  More than adequate  Adequate  Less than adequate  Poor |

1. The UNDP-GEF project; *Addressing the Risks of Climate-induced Disasters through Enhanced National and Local Capacity for Effective Actions* is popularly recognized by stakeholders as **NAPA II project** [↑](#footnote-ref-2)
2. This includes Project Document , Project Inception Report; Environmental and Social Screening Summary; Project Implementation Review Reports; Project Board Meeting Minutes (Meetings 1-4); Review and Planning Workshop (1-9); Field Reports (NAPA II Writeshop Report, Tour Reports, Training Reports); Consolidated Training Summary Report; Quarterly Progress Reports (Q1 2015 to Q2 2016); Technical Advisory Committee Meeting Minutes; GEF Guidance Mid Term Review; Bhutan Water Policy 2007; National Irrigation Policy (Revised Draft) 2011; Bhutan Vision 2020; National Forest Policy (Draft) 2010; Food Act of Bhutan 2005; Dzongkhag Disaster Management Plan 2014; Web resources – District profiles; Tarayana Foundation resources; RGoB online resources, DHMS website, NECS website; Asian Disaster Preparedness Center, Resources

   [↑](#footnote-ref-3)
3. The RPW reports for first, second and third meetings do not have utilization reports for the implementation partners. The summation is based on available data from GNHC. Despite our best efforts to procure data from GNHC, expenditure related information was not available. [↑](#footnote-ref-4)
4. For ideas on innovative and participatory Monitoring and Evaluation strategies and techniques, see [UNDP Discussion Paper: Innovations in Monitoring & Evaluating Results](http://www.undp.org/content/undp/en/home/librarypage/capacity-building/discussion-paper--innovations-in-monitoring---evaluating-results/), 05 Nov 2013. [↑](#footnote-ref-5)
5. For more stakeholder engagement in the M&E process, see the [UNDP Handbook on Planning, Monitoring and Evaluating for Development Results](http://www.undg.org/docs/11653/UNDP-PME-Handbook-(2009).pdf), Chapter 3, pg. 93. [↑](#footnote-ref-6)
6. Populate with data from the Logframe and scorecards [↑](#footnote-ref-7)
7. Populate with data from the Project Document [↑](#footnote-ref-8)
8. If available [↑](#footnote-ref-9)
9. Colour code this column only [↑](#footnote-ref-10)
10. Use the 6 point Progress Towards Results Rating Scale: HS, S, MS, MU, U, HU [↑](#footnote-ref-11)
11. Alternatively, MTR conclusions may be integrated into the body of the report. [↑](#footnote-ref-12)
12. Engagement of the consultants should be done in line with guidelines for hiring consultants in the POPP: <https://info.undp.org/global/popp/Pages/default.aspx> [↑](#footnote-ref-13)
13. The Report length should not exceed *40* pages in total (not including annexes). [↑](#footnote-ref-14)