



MINUTES OF MEETING

*“Reducing Climate Change-induced Risks and Vulnerabilities from
Glacial Lake Outburst Floods in the Punakha-Wangdi and Chamkhar Valleys”*

11th Project Board Meeting

Date: February 10, 2012

Venue: Meri Phuensum Resort, Punakha

The 11th Project Board (PB) Meeting for the Project: Reducing CC-induced Risks and Vulnerabilities from GLOFs in the Punakha, Wangdue and Chamkhar Valleys was held on February 10, 2012 – at the Meri Phuensum Resort, Punakha. The PB meeting started with site visits to the Early Warning System siren towers and GOLF evacuation site in Samdingkha and the Wangdue Early Warning System Control room. The Chairman, Dasho Sonam Tshering, Secretary, Ministry of Economic Affairs in his opening remarks extended a warm welcome to all the Board members and briefly highlighted on the progress of the project and also expressed the importance of the present board meeting to discuss on topics such as extension of the project period for one year. The chairperson also emphasized on the importance of reflecting on the lessons learnt from the preceding years as the project plans to carry out the final year of project activities in 2012.

Following the chairperson’s opening address, the Resident Representative (RR), UNDP Ms. Claire Van der Vaeren, in her address to the PB members reflected on the challenges of Climate Change induced disasters for Bhutan and the positive impact of the project in terms of creating public awareness both at the national and international level. Having featured on the Discovery Channel in the documentary “Himalaya Meltdown”, the project has been able to connect to a larger audience.

Following the adoption and formal endorsement of the 10th PB meeting minutes, various presentations were made by Department of Geology and Mines (DGM), Department of Disaster Management (DDM), Department of Hydro-Meteorological Services (DHMS) and UNDP.

I. Presentation by Department of Geology and Mines (outcome 2)

1. Karma, Team Leader, GLOF mitigation project, Lunana

Mr. Karma, Team Leader, presented the overall technical achievements of the project. The chairman asked about where the excavated materials are being dumped. The team leader clarified that the excavated materials are being dumped in the identified dumping sites during the engineering and safety investigation carried out in 2008.

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On the issue of whether to excavate remaining 2.95m of the subsidiary lake-I, the team leader informed the members that further technical assessment/studies must be conducted during the last field season considering technicalities of achieving the target of lowering the main lake by 5m. The Team Leader also presented the key issues like low turnout of workers in 2011. He however, mentioned that unlike in the preceding years, there was no major problems related to transportation and medical issues.

2. Dr. Suresh Mothey, Project Doctor

Following the team leader's presentation, the project Doctor presented on the health and safety aspects of the project in 2011 following the independent assessment conducted in 2010. Doctor Suresh Mothey started his presentation with an acknowledgement to the project for sending him and his colleagues for a high altitude and emergency remote care training at the Cork University Hospital in Ireland. Doctor Suresh then highlighted the strict implementation of recommendations of the health and safety assessment, such as medical screening processes for laborer recruitment and setting up of medical camps at Rodophu and Tarina. He also briefly outlined the importance and actions taken by the medical transit camps established along the route to the project. The Rodophu medical camp sent back five laborers who suffered from acute mountain sickness. Among them, one was seriously ill and the medical team travelled about 4 hours to get to the place at the highest pass enroute to the project to rescue the patient. The Doctor informed the floor that without the medical assistance provided, the patient could not have made it, as he was by himself and almost unconscious by the time the medical rescue team managed to locate and rescue him.

At the project site, Doctor Suresh informed the members that the laborers were allowed to work continuously for maximum 30 minutes in the ice cold water at a time; workers were also encouraged to carry packed lunch at site and consumption of alcohols was discouraged. The medical team at the site ensured that all project members had access to adequate waste disposal sites and proper latrine usage was encouraged. Doctor Suresh also elaborated that the project medical facility also benefited the local communities and other government officials who visited the project site area. For instance, an officer from the National Land Commission (NLC) was given medical care at the project infirmary and the medical team assisted evacuation of the patient from Lunana. Finally, Doctor Suresh recommended acquiring a light portable oxygen cylinder and provision of indoor games such as chess for the workers in 2012.

3. Dowchu Drukpa, Project Manager, GLOF Project, DGM

The third presentation from the DGM component was presented by Mr. Dowchu Drukpa, Project Manager of GLOF Project, DGM. He presented to the board on overall physical and financial achievements, including a financial overview distributed to the project board members (enclosed as annex); challenges, constraints and lessons learnt in 2011; appraisals and issues for necessary directives and approval by the Project Board.

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Discussions and approval:

- The Project Manager submitted to the Project Board a request for a no cost extension approval of the project until mid 2013 (30 June 2013).

The justifications submitted by the project management for the no cost extension of the project are:

- Under outcome 1, the draft Disaster Management bill of 2008 has been delayed several times, but was finally approved by Cabinet in 2011 and the National Assembly in January 2012, for expected enactment by mid/end-2012. This delay – and lack of mandate for disaster management institutions - has caused challenges and delays in implementing project activities. The project has, however, been successful in piloting the institutional approach that the DM Act is expected to bring about, but because of delays the local disaster management planning will only be completed by end 2012. The enactment of the bill by end 2012 is expected to support, sustain and replicate the institutional mechanisms piloted by the project (local and district disaster management focal points and committees) beyond the project, and it would therefore be important to allow completion of activities.
 - Under outcome 2, the first working season in 2008 was spent on preparing the engineering and safety plan, and actual mitigation works started only from 2009. Harsh weather conditions and limited access to the work site have caused delays, and to meet the target of 5 meters lowering of Thorthormi lake, an additional working season from June - October in 2012 is required. Reporting of the mitigation works would be finalized by end 2012.
 - Under outcome 3, responsibility for implementation of outputs 3.1 and 3.5 were transferred from DGM to DHMS, and further delays occurred in tendering of the EWS. While the EWS installation is finalized, due to the delays, related awareness activities can only be completed during 2012.
 - Under outcome 4, compilation and dissemination of project lessons has started. End-of-project lessons will draw on the expected completion of most project activities in 2012. An international conference will be convened in 2012 or early 2013, and terminal evaluation conducted in 2013 (commissioned latest from April-June 2013).
 - Resources are available for a no-cost extension until mid-2013, which will allow the project to meet all targets under all outcomes. The Annual Work Plan prepared for January 2012- June 2013 covers this remaining project period.
- PB members enquired whether it would be possible to complete the remaining targets within the extended period or if more time would be required to achieve 5m level reduction of the Thorthormi lake. To this, the project management responded that keeping in mind uncertain factors like weather and availability of workers, it is expected that the remaining task of 1.38m water level reduction of the lake can be achieved in

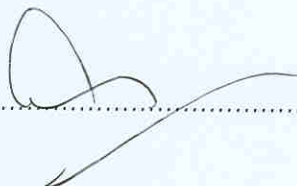
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2012. Members also suggested to go beyond 5m of lake level reduction if it is possible and permissible within the 2012 excavation work. The PB members after much deliberation including justification from the project management unanimously agreed to extend the project period to 30 June 2013. ADA informally agreed to the PB decision, and requested UNDP to send a formal request for the no-cost extension. UNDP confirmed that the Project Board decision would be conveyed to the GEF-LDCF and a formal request sent to ADA.

- The project manager submitted a proposal to the members for site visit by the PB members to the project site in Lunana. Members stressed that even though it would be beneficial for the PB members to visit all project sites at least visit once during the project implementation, remoteness of the project location, time and cost factor should be taken into account. Two proposals were submitted by the Project Manager. The first option suggested was to hire a chopper for a visit of 1 or more days. Members, and especially the health representative, informed the floor that making overnight halt at Lunana is not recommended considering the health impact of ascending from lower altitude to around 4500m asl within a short time. However, travelling back and forth by helicopter on the same day would be ok. The second option suggested was trekking to the site, however since most of the PB members hold important official posts, hiking is not feasible as it will take almost a month for the trip. The members discussed at length, and it was suggested that if a helicopter can be used for other aspects of the project, such as the technical review, it could be combined with visit of the project board.
- On the field gear provisions to be provided to the workers as per the 10th PB meeting resolution, the Project Manager (DGM) informed the members that the project could not provide sleeping bags to the workers in 2011 due to limited time for procurement. To this members noted the constraints and granted approval to provide sleeping bags to the workers for the 2012 field season. As practiced in the preceding years, the project board also approved Nu.50,000/- as expenses related to religious ceremony at the project site by the representative from the central monastic body.
- On the utilization of possible fund balance of approximately US\$0.170 million under outcome 2 (refer financial overview enclosed as annex) at the completion of mitigation works by the end of 2012, the board instructed the project that the first priority should be to cover up the negative balance of the early warning component under the Department of Hyro-Met Services. Re-appropriation of funds from outcome 2 (DGM) to outcome 3 (DHMS) was endorsed by the project board, and the amount of USD 60,000 discussed and agreed within the project management and UNDP following the meeting. The project board further advised that additional balance funds could be used for the international conference planned under the project. UNDP clarified that the budget re-appropriation would be made within the GEF-LDCF funds and not affect the ADA-contributions.

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- With regard to the technical evaluation/ scientific assessment of the project, the project management suggested that this should be done in combination for the three project outcomes by independent technical consultants (international and national). The project requested UNDP to carry out the recruitment of the consultants. It was suggested that a helicopter could be used to facilitate site visits of the technical review team to Lunana as trekking would be costly in terms of number of days required.
- Members emphasized the importance of evaluating the glacier lake environment to have a more holistic understanding of the dynamics of the area. Re-measurement of electrical resistivity lines especially at the barrier between Raphstreng Tso and Thorthormi Lake were strongly recommended by the members to understand if any changes can be seen since the measurements of 2008.

Summary of key decisions and approval

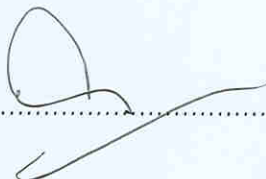
- No cost extension of the project approved by the Project Board until 30 June 2013
- Nu.50,000/- approved as expenses to cover religious performance expenditure by the representative of the central monastic body
- PB approved to provide sleeping bags to the workers in 2012 field season
- Budget re-appropriation from outcome 2 (DGM) to outcome 3 (DHMS) of USD 60,000
- Technical review of the project to be conducted in mid 2012 by independent technical consultants which will be hired by UNDP in coordination with the implementing partners
- Balance funds to be re-appropriated for the international conference planned under the project.

II. Presentation by the Department of Disaster Management (Outcome 1 and 3):

The Project Manager, DDM presented the physical and financial progress for the year 2011 including the Annual Work Plan (AWP) of 2012-2013.

- DDM informed the meeting that the rolling out of the Community Based Disaster Risk Management (CBDRM) in Gewogs and Chiwogs of Bumthang Dzongkhag completed. The implementations of CBDRM remaining 4 Gewogs in Punakha namely Shengana, Guma, Barp and Toep and Chiwogs of 7 Gewogs under Wangdue Phodrang have been planned. Two Dasho Dzongdags of Punakha & Wangdue has been requested to expedite the process and complete it before June 2012.
- DDM expressed its appreciation and gratitude to DGM for carrying out the demarcation of hazard zone and identification of safe GLOF evacuation site along Punakha tsangchu basin (***Samdingkha in Punakha to Hesothangkha in Wangdue Phodrang***) in 2010 and recently along Chamkhar Chu basin from Khangtang to Jalikha. Identified hazard zonation and safe evacuation site have

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been handed over to Dzongkhag and all communities were sensitized on it. Request was also made to DGM for identification of safe GLOF evacuation site and hazard zonation for upstream of Samdingkha and downstream of Hesothangkha till Lhamoyzingkha.

- The Board was also informed on the awareness campaign carried out by the DDM in collaboration with DHMS and DGM on GLOW EWS, Hazard zone and GLOF safe evacuation site in Punakha-Wangdue valley. It was informed that awareness and mock drill on GLOF EWS and other related activities in the upper region of Lunana will be done this year from June to September, and implementation of mock drill on Automatic EWS in Punakha –Wangdue valley in collaboration with DoHMS and Dzongkhags.

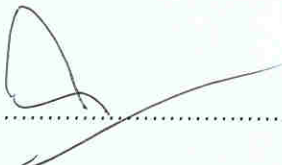
The following issues were discussed and endorsed by PB:

➤ **Budget re-appropriation from outcome 3 to outcome 1 (USD 61,942)**

DDM apprised the meeting of the need for budget re-appropriation of **USD 61,942** from outcome 3 (DDM) to outcome 1 (DDM) for the following activities (refer financial overview enclosed as annex), which was endorsed by the Project Board:-

- **Roll out CBDRM planning process (USD 7942):-** DDM informed that under Outcome 1, the CBDRM planning process is ongoing in Punakha and Wangdue Phodrang. The training of Trainers completed to carry out the CBDRM planning process at Dzongkhag of Punakha, Wangdue and Bumthang. The collection of data and information related to Hazard, Vulnerability and Capacity completed in all Gewogs and Chiwogs in Bumthang and in some Gewogs and Chiwogs in Punakha and Wangdue. Data is necessary for formulation of the Community Based Disaster Management Plan at Gewog and at Dzongkhag level. To complete the training and collection of data in remaining Chiwogs of Punakha and Wangdue, the budget re-appropriation of USD \$ 7,942 was made.
- **Review CBDRM training and planning process (USD 8,000):** DDM is carrying out CBDRM planning process to formulate Community based preparedness and response plan on disaster management and to build community awareness on disaster management. To assess the effectiveness of CBDRM, the DDM requested the budget incorporation of USD \$ 8000 to hire a Consultant to review the CBDRM training and planning process.
- **Formulate DRM guidelines for Dzongkhag and Gewog (USD 10,000):** The budget re-appropriation of USD 10,000 was requested to hire a Consultant to formulate and facilitate preparation of DRM guidelines, rule and regulations, SOPs and standards.
- **Capacity development program (Budget for ex-country travel (USD 36,000):-** The budget re-appropriation of USD 36,000 and approval was sought for regional workshop/training/field visit on disaster management and climate change adaptation for capacity development of DDM, MoHCA and pilot Dzongkhags officials.

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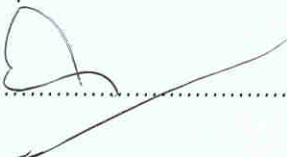



- The Project Manager, DDM submitted that the program would help the project implementation team and relevant officials in pilot Dzongkhag and sectors to experience, first hand, community based DRM activities and other DRR initiatives being undertaken by communities/ local governments in the region.

On the above issue, the Project Board supported the proposal and endorsed the re-appropriation of funds within DDM from outcome 3 to 1. UNDP clarified that the re-appropriation would be done for GEF-LDCF-funds and not affect ADA-contributions. DDM has achieved most of the targets planned under outcome 3 as per the requirement of the project document, and therefore the re-appropriation is not expected to affect the achievement of targets negatively. The proposal on capacity development to enhance the capacity of DDM and district officials involved in the project was also supported, as disaster management and climate risk management are new fields where capacity development is required, and since other implementing partners have availed similar opportunities under the project.

III. Presentation by the Department of Hydro-met Services (outcome 3):

1. The Project Manager of the GLOF EWS, DHMS presented the physical and financial progress of the GLOF EWS System component including the Annual work Plan (AWP) of 2012.
 - DHMS informed the meeting that the Installation, testing and commissioning of the GLOF EWS system was completed by end of August 2011 and was taken over from the contractor by the Department on 9th September 2011 upon completion of trainings on operational of control room and remote stations maintenance of the GLOF EWS System by the Contractor.
 - DHMS apprised that GLOF EWS system is operational and is transmitting data, but still there are few technical problems with Total Precipitation Gauge (TPG) at *Thanza* and *Thorthormi Tsho* AWLS, which the contractor has agreed to rectify the problems in the coming summer 2012.
 - DHMS also reported that the expenditure for 3rd (July-September 2011) and 4th Quarter 2011 (Oct-Dec 2011) were mainly incurred for the DHMS Counterparts who travelled to Lunana and Punakha Wangdi for supervision of works, organizing in country hands on trainings and final payments to Contractor.
 - DHMS also reported excess use of funds (refer financial overview) than could be covered by co-financing from PHPA, however since this co-financing was intended for other purposes, it was requested that the project cover the funding gap if possible. Since balance funds are available under outcome 2 (DGM), the Project Board endorsed and directed re-appropriation of funds from outcome 2 (DGM) to outcome 3 (DHMS). The project board asked the Project Director, Project Managers and UNDP to discuss and agree on the amount required, which was settled at USD 60,000 after the meeting (refer financial overview enclosed).
 - DHMS also informed the PB that DHMS received Nu. 20.0 million co-financing from PHPA in September 2011 for the GLOF EWS component, out of which Nu. 6.012 million were already spent as of December 2011.

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- DHMS also apprised the PB that the following activities will be implemented for the component in AWP 2012.
 - o Construction of Control Room Extension Office at Wangdue Flood Warning Office.
 - o Organise study visit to Flood Forecasting Warning Centers in the region to Develop Standard Operating Procedures for GLOF EWS.
 - o Travel to Lunana for the rectification of TPG, Thanza and shifting of AWLS on Thorthormi Outlet to Lake side, installation of additional AWLS/AWLS stations on Tarina and Mochhu head waters.
 - o To train 2 or 3 dedicated DOE staff for GLOF EWS hardware and software training at Sutron Training Centre, USA
 - o Technical Evaluation of GLOF EWS along with evaluation of other components of the project.

2. The following issues were put forward to the PB for information:

a. Annual Maintenance Contract (AMC):

DHMS informed the PB that the Contractor has already quoted AMC rate in the bid submitted amounting to Nu.4.8 million for 3 years. AMC will include field visit, iridium communication charges, supply of critical spares and customer online services by Sutron. First Year AMC will commence soon after the one year guarantee period i.e. from the 9th September 2012. DHMS informed that an AMC will be signed with the Contactor and covered by the PHPA co-financing of the project component.

PB noted the submission.

b. Payment for Iridium Charges:

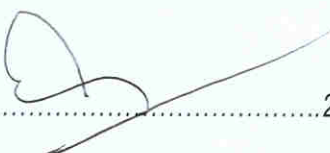

DHMS informed the meeting that the Project Management has discussed with M/s Sutron to make a payment for iridium communication charges on an annual basis rather monthly. Annual Iridium Communication cost + Annual Internet Back up (BEGAN) charges amounts to US\$ 2,153.71 equivalent to Nu. 600,115.5. They informed that one year communication charge will be booked under the PHPA co-financing fund.

PB noted the submission.

c. Shifting of Control Room to Thimphu within the National Weather Flood Forecasting and Warning Centre (NWFFWC) in future:

DHMS also informed the meeting that GLOF EWS was designed in such a way that the Control Room can be anywhere in the world and thus proposed to shift the control room to Thimphu due to poor internet connectivity in Wangdue and limited technical capacity of staff at Wangdue to carryout minor ICT related problems.

PB noted the submission but directed that shifting should not incur extra expenditure to the project. It was also recommended that if possible some functions should be maintained at the district level.

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d. Use of balance of PHPA fund

DHMS also apprised the meeting that upon making payments to Contractor and implementing remaining activities, still there will be some fund balance under the PHPA co-financing of the project. DHMS propose to procure additional AWS/AWLS to install on head water of Mochhu and Tarina lake side on Phochhu to provide good coverage of hydro-met network, data of which will be useful for hydropower operation as well as for other uses in future.

PB noted the submission.

e. Security and Safety of Equipment installed

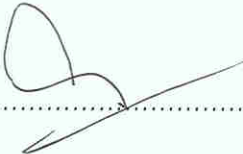

Some of the PB members informed the meeting that siren towers and water level equipment are located in inhabited areas and the physical security is a great concern, and proposed that the physical infrastructures be handed over to the beneficiaries.

After deliberation in the meeting, the Chairman of the PB, requested the Dasho Dzungda of the respective Dzongkhags of Punakha, Wangdi and Gasa to discuss the matter with communities. DHMS and DDM were also asked to inform the communities while organizing awareness workshops and mock drills of GLOF EWS with communities and other stakeholders.

IV. Presentation by UNDP (outcome 4)

UNDP made a presentation of project outcome 4 related to knowledge management. Four project factsheets developed in October 2011 by UNDP with inputs from the implementing partners and the Adaptation Learning Mechanism case study were distributed to the PB members. These materials were already distributed at various events in Bhutan and internationally, and presentation on the project made by both UNDP and the Project Managers. The number of documentaries (5) produced about the project was highlighted as a sign of the great interest in the project nationally and globally. In order to further extract lessons from the project, and for the technical review, the need for sharing of all relevant project documentation, reports, etc. was highlighted.

UNDP informed that a regional knowledge sharing workshop on GLOF risk reduction would be convened by UNDP-BCPR, UNISDR and GFDRR in Kathmandu from 21-23 March 2012, where the project would be requested to present experiences from Bhutan. As per the project document, an international conference should also be scheduled in Bhutan to present lessons of the project and discuss plans for replication and upscaling. The timing and venue of this workshop was discussed and the PB chairman requested the project management to bring this up at the next PB meeting. In the context of the 11th FYP and next UN Development Assistance Framework, the UNDP RR emphasized the importance of information/lessons learnt to be integrated in strategic plans by mid-2012, and therefore she requested the project management to carefully consider timing of events (technical review, international conference).

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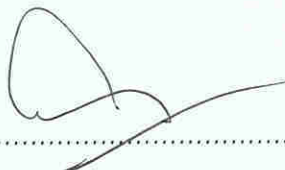
UNDP also informed that considering the no-cost extension of the project, the terminal evaluation of the project will be conducted in the first half of 2013 (latest from April-June 2013).

- Project implementing partners were requested by the PB chairman to share relevant documentation with UNDP.
- A concept note regarding the organization of an International Conference on GLOF in Bhutan should be presented for discussions at the next PB meeting. It was noted that the MoAF and NEC may also be planning a similar conference and hence it should be properly coordinated to avoid duplication.

Attachments

1. List of participants
2. Meeting Agenda
3. Financial overview, February 2012

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11th Project Board Meeting: List of Participants (February 10, 2012)

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AGENDA FOR THE 11TH PROJECT BOARD MEETING

"Reducing Climate Change-Induced Risks and Vulnerabilities from Glacial Lake Outburst Floods in the Punakha-Wangdue and Chamkhar Valleys"

Venue : Meri Phuensum Resort, Punakha

Date : 10th February 2012 (Friday)

Morning (Site Visit to GLOF EWS):

- | | | |
|---|-------------|--|
| 1 | 08:00-9:00 | Breakfast at Meri Phuensum, Punakha |
| 2 | 09:00-12:00 | Site visit to control room and other facilities related GLOF EWS , Wangdi-Punakha valley |
| 3 | 12:00-13:00 | Lunch at Meri Phuensum Resort, Punakha |

Afternoon (PB Meeting):

- | | | |
|---|-------------|---|
| 1 | 13:00-13:10 | Opening by Dasho Sonam Tshering, Secretary, MoEA (Chairperson) |
| 2 | 13:10-13:15 | Rectification/Adoption of minutes of 10 th PB meeting |
| 3 | 13:15-13:40 | Presentation by Project Team Leader and Project Doctor |
| 4 | 13:40-14:00 | Presentation by Dowchu Dukpa, Project Manager |
| 5 | 14:00-14:20 | Presentation by Karma Dupchu, GLOF Project Manager, Department of Energy on GLOF early warning system |
| 6 | 14:20-14:40 | Presentation by Chencho Tshering, GLOF Project Manager, DDM, MoHCA |
| 7 | 14:40-15:40 | Discussions |
| 8 | 15:40 | Tea /snacks and depart Punakha |

Reducing Climate Change induced Risks and Vulnerabilities from GLOF
Financial Review February 2012

Project outcome and activities	Implementing partner	Source of funds / Donor	Overall planned budget in Project Document	Share of outcome per source of funds (ADA/GEF-LDCF)	Planned budget in Project Document per source of funds	USD reported 2008	USD reported 2009	USD reported 2010	USD reported 2011	USD balance	USD budgeted 2012-13	Remarks (budget re-appropriations and pending activities)
OUTCOME 1: Improved national, regional, and local capacities to prevent climate change-induced GLOF disasters in the Punakha-Wangdi and Chamkhar Valleys	DDM	GEF-LDCF	295,000	83.05%	245,000	5,450	116,294	74,121	61,377	12,758	74,700	USD 25,000 re-appropriated from DDM outcome 3 to outcome 1 (corrected in balance available) CBDRM training and planning process, DM bill, NDRMF update, DRM guidelines. PB decision to re-appropriate funds from DDM outcome 3 to outcome 1
	DGM	GEF-LDCF		16.95%	50,000	0	0	0	2,779	47,221	34,500	Database, website National project workshop 2012
OUTCOME 2: GLOF risk from Thorthomi lake reduced through an artificial lake level management system	DGM	GEF-LDCF	2,703,012	82.80%	2,238,012	25,294	251,578	674,601	447,335	839,204	598,850	2012 lake mitigation works and technical review.
		ADA		17.20%	465,000	0	306,269	0.00	92,582	66,149	60,543	PB decision to re-appropriate USD 60,000 from LDCF to DHMS outcome 3.
OUTCOME 3: Vulnerable communities in the Punakha-Wangdi Valley are able to receive GLOF early warnings in time to reduce human and material losses	DHMS	GEF-LDCF	823,430	81.48%	670,966	0	17,913	88,055	625,088	39,017.55	45,500	USD 21,072 were transferred by DDM to DOE under outcome 3 (corrected in balance funds available). PB decision to re-appropriate USD 60,000 to from outcome 2 (DGM) to this outcome.
		ADA		18.52%	152,464	0	0	1,113	175,708	24,357.81		Due to exchange rate fluctuations, the ADA-contributions received in 2009 and 2010 were higher than expected. Additional funds were therefore allocated to this outcome to cover the funding gap.
	DDM	GEF-LDCF	254,072	63.40%	161,072	0	0	9,076	39,864	66,059.52	0	USD 21,072 were transferred by DDM to DOE under outcome 3 (corrected in balance funds available). USD 25,000 re-appropriated from DDM outcome 3 to outcome 1 (corrected in balance available)
		ADA		36.60%	93,000	0	0	0	0	93,000	84,500	Hazard zonation maps, EWS evacuation routes, response plans and mockdrills, and
OUTCOME 4: Learning, evaluation and adaptive management	DDM / UNDP	GEF-LDCF	57,200	34.97%	20,000	0	0	0	2,719.41	17,281	12,000	Lessons learned factsheets and report, participation in relevant regional/int. workshop/conferences, International GLOF conference 2012
		ADA		65.03%	37,200	0	0	0	0	37,200	37,200	
Monitoring & Evaluation	UNDP	GEF-LDCF	60,000	100%	60,000	0	0	20,545	4,838	34,617	30,000	Terminal evaluation, M&E
	UNDP	UNDP	0	0	0	816	2,854	2,934	0	0	2,250	Monitoring 2012
Facilities and Administration (7%)	UNDP	ADA	52,336	-	52,336	0	21,439	0	18,780	12,117	12,757	7% Facilities and Administration fee is charged to the actual ADA-contribution reported by Implementing Partners
unrealized loss/gain GEF-LDCF		GEF-LDCF	-	-	-	11,890	17,858	2,567	3,243	-	-	Realized gain/loss is due to fluctuations in exchange rates between USD and Bhutan
unrealized loss/gain ADA		ADA	-	-	-	0	16,269	730	2,647	-	-	Ngultrum. Loss is indicated with "-" and the amount.
unrealized loss/gain UNDP		UNDP	-	-	-	0	0	0	0	-	-	
TOTAL		All	4,245,050	100%	4,245,050	43,450	682,220	873,743	1,476,962	1,162,230	992,800	ADA-contribution may vary depending on exchange rate fluctuations

Total GEF-LDCF	GEF-LDCF	-	81.15%	3,445,050		367,927	868,965	1,187,244	930,901	795,550	
Total ADA	ADA	-	18.85%	800,000	-	311,439	1,843	289,718	184,108	195,000	ADA-contribution of EUR 600,000 was in project document budgetet as USD 800,000, however the actual contributions received for 2009 (USD 311,439), 2010 (USD 140,056.02) and 2011(206,043.96) amount to in total USD 657,539 which is higher than expected thanks to exchange rate fluctuations.
Total UNDP	UNDP	-	-	-		2,854	2,934	-	-	2,250	UNDP funds not budgeted in the project document, however allocated to supplement M&E