



MINUTES OF MEETING

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

10th Project Board Meeting

Date: June 6, 2011

Venue: Conference Hall, DoE, Ministry of Economic Affairs, Thimphu

The 10th 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 June 6, 2011 at Department of Energy (DoE) Conference Hall, Thimphu. The Chairman, Dasho Sonam Tshering, Secretary, Ministry of Economic Affairs in his opening remarks extended a warm welcome to all the Board members. Dasho reminded that the meeting was important especially because it is being held just prior to the 2011 working season in Lunana.

This was followed by the discussion on the minutes of the 9th PB meeting. The floor was open for members to make any comments on the last Board meeting minutes which has been signed and shared with all the members. Since there were no comments from the members, the Chairman informed the floor that the 9th PB meeting minutes is approved.

After adoption of the agenda by the members, presentations were made by Project Managers from Department of Geology and Mines (DGM), Department of Disaster Management (DDM) and Department of Energy (DoE).

1. Presentation by the Project Manager, DGM

Mr Dowchu Drukpa, Project Manager, DGM presented on the following aspects of the GLOF risk mitigation project in Lunana:

i. Financial Review

The financial review and budget status of the project—which was circulated to the PB members before the meeting—was presented by the project manager at the meeting. Based on the review, the project manager submitted to the board that the DGM component will have sufficient budget in case if time extension is required for the work at Thorthormi Lake. Time extension of the project looks more likely given that 2011 field work has been delayed

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due to inaccessibility to project site at Gangla Karchu (5200m) pass. The formal approval for extension of the project will be sought after the field work in 2011 or during the next PB meeting. The UNDP representative also informed the floor that as long as there is no financial implication i.e requiring additional funds, extension of project would not be an issue.

ii. **Follow up on Health and Safety Recommendations:**

- Following consultations with the Ministry of Health after the 9th PB meeting, it was agreed to retain Dr Ugyen Dophu as Board Member from MoH and to appoint the Project Doctor as a member of the Technical Support and Advisory Committee (TSAT). Dr. Rinzin, who was part of the multi-disciplinary team in the past two years has been transferred and the new Doctor in Gasa is now the Project Doctor.

- On procurement of drugs and equipments for Lunana project, the list has been prepared in consultation with the former Project Doctor (Dr Rinzin). Since DGM does not have the technical competency to purchase medical items, DGM officially requested MoH to assist the project in procurement of those items to be procured through the project (items that are not under MoH EDL lists). MoH has in principle agreed to procure and supply the drugs to the project with the understanding that the bills will be cleared by the project. However, the project doctor has informed that DVED, MoH has indicated their inability to procure the items. In view of this and the limited time available, the Project Manager (DGM) proposed to procure the items from Siliguri after seeking approved from MoEA. The Standard Operation Procedures (SOPs) for emergency - prepared by the project management team in consultation with the project medical personnel were also presented to the board.

PB decision:

- *Procurement of drugs to be carried out immediately after securing necessary approval from the PB chairperson.*
 - *SOP for emergency should be further revised with inclusion of contact person details including telephone number and shared with the members for comments. PB Members suggested that while the establishment of a Medical Committee is an important step in addressing emergencies at the site, the Project Doctor should be a key member of this committee and any decision that the committee makes should be in line with the advice of the Doctor.*
- With regard to inclusion of additional medical personnel in the project team, MoH was kind enough to nominate an additional Basic Health Worker (BHW) in addition to the already appointed Doctor and a Health Assistant (HA). The 3 members from MoH were trained in high altitude medicine and remote emergency care at the Cork University Hospital, Ireland from 15-23 April 2011 in line with directives of the 9th PB meeting.

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- On the recommendation to establish medical transit camps (during journey) at Rodophu and Tarina and one day mandatory acclimatization halt at Rodophu, the Project Manager (DGM) informed the meeting that the issue was deliberated during the multi-disciplinary coordination meeting held on 30th May 2011 and a road map has been finalized and team members (1 medical personnel and 2 project staff have been identified) will be stationed at the two medical transit camps.
- Project has reviewed the existing Occupational and Health Standards (OHS) of the Ministry of Labor and Human Resources (MoLHR) and will ensure to adhere to the OHS practices
 - *PB decision: The Project Team should consult with MoLHR on the OHS and get their inputs/feedback to ensure that OHS measures are adequately covered*
- On the recommendation to provide additional field gears such as improved rain gear and gum boots, the project manager informed the members that procurement of rain gear and gum boots were done in line with RGoB procurement processes. Regarding sleeping bag, mattress and jacket for the workers, the project manager reported that procurement of these items were not carried out as it will not only set precedence in future projects, as discussed in the last PB meeting, but will have high cost implication to the project. The Director General, DGM informed the floor that Bhutan & Partners—a Dutch based NGO—has agreed to donate jackets to the project workers for 2011.
 - *PB decision: Since the project has already procured blankets for the workers, the PB approved, in principle to provide sleeping bag and mattress subject to budget availability. The Project Team was instructed to work out the budget and other details and submit to the PB Chairperson for further course of action and approval.*
- As agreed during last PB meeting, the project manager informed the floor that restocking of ration for the workers will be continued and workers will be issued rations from two locations at Damji and Laya.
- On the issue of medical screening of the workers, the project has already finalized the mechanism of the screening process in close consultation with the project doctor, MoH and Jigme Dorji Wangchuk National Referral Hospital (JDWRH).

PB response, endorsement and approval (Sl. No. i & ii): Overall members found the follow up on the health and safety arrangements satisfactory and endorsed the proposals submitted by the Project Management Team. However, concerns were raised on the Standard Operating Procedures (SOPs) for emergency. Members felt the SOPs require further fine tuning; detailed information of the emergency contact persons including contact numbers should be included in the SOPs. The refined SOPs should be shared with the members before finalization. On the issue of providing sleeping bag and mattress to the workers, since the project has already procured blanket to the workers, PB in principle approved to provide sleeping bag and mattress subject to budget availability and directed the project management (DGM) to work out the budget and check if this is a feasible proposal and submit to the PB Chairperson for further course of action and approval. The Project Team was also instructed to ensure that the workers be sent to the site in groups/teams with the appointment of team leaders for each group/team and to monitor the conditions of workers during journey to the site.

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iii. **Follow up on Midterm Review Recommendations:**

- The Project manager presented that the GLOF project workshop scheduled to be held in April 2011 could not be carried out due to project officials being fully engaged in health and safety recommendation follow up. He however informed the members that the workshop will be carried out sometime in November or December 2011 after the team returns from the field.
- The webpage for the project has been already designed by hiring a local IT consultant. The webpage should be online by end of June 2011.
 - *PB endorsed the GLOF project workshop schedule change and workshop is now postponed to be held sometime in November or December 2011.*

iv. **Work Plan for 2011:**

- The revised updated work plan for 2011 was also presented to the members. The Project Board was also informed of the multi-disciplinary team members for 2011. The project manager informed the meeting that the Terms of Reference for each member was discussed, revised and finalized during the team coordination meeting held on 30 May 2011.
- The project manager informed the meeting that as soon as the route between Laya and Lunana becomes accessible, the project will mobilize project team and workers movement at the earliest.
- Based on progress during 2010 season, the target for lowering the lake level in 2011 is set at 1.4m assuming the excavation work can be started by first of July 2011. Further the options to continue the work at site till mid-October was also presented. However project officials will keep track of the weather conditions and accordingly release workers from the site after completion of 2011 field work.
 - *PB endorsed the revised work plan and target for 2011 field work and instructed the project team to try and gain as much time as possible.*

v. **Issues for PB approval and endorsement**

- In line with the 7th PB meeting, the project Manager submitted to the PB the ration handling and transportation loss for 2010 field season. The average loss for 2010 is about 1% compared to average loss of 2% in 2009.
 - *Average loss of 1% handling and transportation loss was endorsed by the Project Board.*
- Budget re-appropriation (up-scaling of 2011 AWP) of US\$ 25,984/- (Nu.1.15 million) under materials and good was submitted to PB for approval. This up-scaling is mainly because of extra ration procured based on decisions of the 9th PB meeting and to gain as much working time at the site as possible. The work plan was revised (from 3 to 4 months) and additional ration items were procured soon after the 9th Project Board meeting.

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- The Project manager also submitted to the Board the requirement of Nu.50,000/- as expenses to carry out religious ceremony by the Dratshang Lhuntshog representative as practiced in the past years.
- Further since Laya is now connected to B-mobile, the Project Team submitted a proposal to provide the store in-charge at Laya with a Nu. 500 mobile voucher every month (during active project period) since he has to be in constant touch with Head Quarters and Project Officials. The project manager informed the meeting that both the Gasa Dzongkhag representative and Damji store in-charge are currently provided Nu.500/- per month mobile recharge card based on approval from the PB.

○ The above three proposals were endorsed and approved by the PB

vi. Updates from the Field:

The project manager updated the Board on route conditions between Laya and Lunana, based on reports from Gasa Dzongkhag representative. The route is still not accessible at Ganglakarchu pass (covered with over 5 feet thick snow). It is likely the route may become accessible within 2-3 weeks. The project manager also informed Board members that more than 80% of the project goods have already been trans-shifted to the Laya Takshimakha store.

PB endorsement and approval (Sl. No. iii, iv & v): Change in the project workshop scheduled has been endorsed by the members based on project management's submission. The work plan was also endorsed by the PB members with directives to start field work as soon as the route opens. Members also endorsed and approved the three proposals under item no.v as proposed by the project management (DGM).

vii. Field Monitoring Visit to Lunana:

At the request of UNDP, the Project Manager had inquired from firms in Nepal about the possibility of hiring a helicopter to take some of the PB members to the project site for a field monitoring visit. The Project Manager presented to the Board that such a visit would cost approximately US\$ 50,000. In addition, it was also pointed out that flying to Lunana is weather-dependent and the cost of hiring a helicopter might increase depending on weather conditions at the time of the visit.

PB members thought that the field monitoring visit would be very expensive. Given the shortage of funds for the Early Warning component of the project, the PB members thought it would instead be good if the balance funds could be allocated to the EWS component, if possible and of course with the understanding that this should not be at the cost of activities under other components.

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2. Presentation by Department of Disaster Management (DDM)

The Project Manager, DDM presented the physical and financial progress report for the DDM component under each output (*presentation attached as annexure for ready reference*) including the Work Plan for 2011.

He informed the Board about the on ongoing *Qualitative-Based Survey (QBS) of awareness, preparedness and response capacities related to climate change induced risks and vulnerabilities* in three pilot Dzongkhgs and at National level to set up the base line data. The consultant presented the preliminary findings of the survey. He also informed the board on the successful review of DM Bill by International experts and recruitment of national legal consultant for redrafting of the DM Bill.

The Director, DDM updated the Board on the current status of redrafting of DM Bill based on the International Experts findings and recommendations. He said that the DDM has hired a National legal consultant to re-draft the DM Bill, which would be submitted to the Cabinet for endorsement either on 12th or 19th July, 2011 for further submission to the National Assembly for adoption during the winter session.

Issues:

Budget re-appropriation for DM Bill - Translation and Printing:

The DDM requested the Board for budget re-appropriation from outcome 3 to outcome 1 under DDM component for printing and translation of the DM Bill and for revision of National Disaster Risk Management Framework (NRDFM) 2006.

On this issue, the Board directed the DDM to study the fund position and request for re-appropriation. The Board also reminded that in doing so, DDM should ensure that the re-appropriation does not affect implementation of other activities under Outcome 3 .

3. Presentation by Department of Energy (DoE)

The Project Manager, DOE presented the physical and financial progress of the GLOF EWS System component including the Annual Work Plan (AWP) of component for the 2011

- DOE informed the meeting that installation of GLOF Early Warning System in lower region of Punkha-Wangdi was completed in January 2011 including the setting up of the Control Room at the Flood Warning Office, Wangude. He apprised the meeting that the DoE is currently in the process of testing the system. DoE also informed that the installation of GLOF EWS in upper region of Lunana will be done in between June to August 2011. He also informed that most of materials/equipments have already been transported to Laya but onward transportation from Laya to Lunana has been delayed due to bad weather conditions in between Laya and Lunana.

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— DoE also informed the meeting that the expenditure for EWS component have been reported, which included payment for supervision of works during the installation and payments for running bills submitted by the Contractor . DOE reported that total expenditure of the project component as of May 2011 was Nu. 27.029 million, which roughly amounts to 70% fund utilization of the component.

The following are some of issues discussed and endorsed by the Board:

a. Time extension of the Contract for the Installation of GLOF EWS System

DOE informed the meeting that the transportation of EWS equipment by the Contractor was hampered by heavy rain in the month of August and September 2010 which washed away bridges and foot path between Gasa and Laya. The Contractor has submitted a request for time extension. After reviewing the case and based on supporting documentation received from Gasa Dzongkhag Administration, the time extension of 50 days (10 August to 28th September 2010) was approved by DOE . After consideration of the above extension, the contract between DoE and the Contractor (M/s UD Enterprise) will now terminate on 18 August 2011 (the earlier termination date was 29 June 2011).

PB noted the submission made by DOE

b. Fund Deficit for EWS Component:

DoE informed the meeting that the EWS component still has a total fund deficit of around Nu. 12.91 million. Considering the Nu. 10.00 million co-financing from Punatsangchhu Hydropower Project Authority the net fund deficit for the EWS component is around Nu. 2.91 million. DOE requested if the above fund deficit could be covered from savings from the other two components. Considering the fund deficit, DOE also informed the meeting that DOE will not able to sign the Annual Maintenance Contract (AMC) with the Firm after the warranty period (1 year), which will be necessary for the continuous operation of the system.

Considering that the installation of GLOF EWS will be completed by August 2011, the PB directed the Project Team to review the fund status and consider re-allocation of savings to the early warning component.

c. Services of ICT Officer for Technical backstopping of EWS:

DoE apprised the meeting that since the GLOF EWS is an ITC-based online system , a dedicated ITC Officer is necessary to provide technical blacktopping services for those staff working in Control Room in Wangdi to tackle software and hardware related problems. He informed that Mr. Sangay Tashi, ITC officer was engaged during the installation of hardware and software at the Control Room. Since the Hydro-met Services Division under DOE has no dedicated ITC officer, Mr. Sangay Tashi under ICT Unit of PPD, MoEA will have to continue providing his services to DOE to ensure back-up services to the EWS component.

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PB noted the submission.

d. **Extension of Wangdi Control Room Building and Procurement of Furniture:**

DoE apprised the meeting that the Control Station of GLOF EWS has been integrated with the Flood Warning Office, Wangdue. He informed the meeting that there is a need to construct an additional room in front of the building to store spare parts., The total estimated cost of the extension is Nu. 0.70 million . DoE informed the meeting that the installation of GLOF EWS tender does not cover the supply of furniture for control room such as office chairs, file racks and steel cupboard to store critical spares parts and tool kits. DoE submitted a proposal to procure furniture, if there were funds available.

The PB directed DoE to keep the cost estimate and drawings ready so that construction can start as soon as the fund is secured.

The Board also instructed the Project Team to take note of all the above submission by DOE and explore possibilities of funding these through savings from other project outcomes . The above proposals should be considered only if there are funds available through other components of the project. Otherwise, the DOE will have to secure funds from sources outside the project.

Attachments

1. List of participants
2. Meeting Agenda
3. Standard Operating Procedures (SOPs) for emergency and safety arrangements
4. Financial Review of GLOF Project



Bakhodir Burkhanov
Deputy Resident Representative
UNDP, Thimphu , Bhutan

Signed by: 1. GNH Commission:  2. UNDP:  3. PB Chairperson: 

Attachment-1

List of Participants 10th Project Board Meeting

Sl. No.	Name	Designation/Agency	Email
1	Dasho Sonam Tshering (Chairperson)	Secretary, Ministry of Economic Affairs	sting@druknet.bt
2	Bakhodir Burkhanov	DRR, UNDP	bakhodir.burkhanov@undp.org
3	Christian Mazal	Resident Representative, ACO	thimphu@ada.gov.at
4	Sonam Yangley	Director General, DGM, MoEA	
5	Sangey Tenzin	Director General, DoR, MoWHS	sangeyt@druknet.bt
6	Sonam Jigme	Dasho Dzongdag, Gasa Dzongkhag	sjigme@gmail.com
7	Kuenzang N. Tshering	Dasho Dzongda, Punakha Dzongkhag	
8	Namgay Wangchuk	Director, DDM, MoHCA	
9	Karma Raptan	Head, Env. Unit, UNDP, Thimphu	Karma.raptan@undp.org
10	Anne Erica Larsen	UNDP, Thimphu	Anne.Larsen@undp.org
11	Ramesh Chhetri	ACO, Thimphu	thimphu@ada.gov.at
12	Chencho Tshering	Project Manager, GLOF Project, DDM	chencho@mohca.gov.bt
13	Dowchu Dukpa	Project Manager, GLOF Project, DGM	dawchu@gmail.com
14	Karma Chophel	Head, Water Resources Division, NEC	
15	Karma Dupchu	Project Manager, GLOF Project, DoE	kdupchu@druknet.bt
16	Tshering Penjor	GNH Commission	tsheringp@gnhc.gov.bt
17	Tshewang Lham	GNH Commission	
18	Jamyang Chophel	Dy.Project Manager, GLOF Project, DGM	
19	Karma Toeb	DGM, MoEA	
20	Dr. Suresh Mothey	Project Doctor, Lunana Project	



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AGENDA FOR THE 10TH PROJECT BOARD MEETING

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

Venue : Department of Energy Conference Hall, MoEA, Thimphu

Date : June 6, 2011 (Monday)

- | | | |
|----|-------------|---|
| 1 | 10:00-10:10 | Opening by Dasho Sonam Tshering, Secretary, MoEA
(Chairperson) |
| 2 | 10:10-10:15 | Rectification/Adoption of minutes of 9 th PB meeting |
| 3 | 10:15-10:40 | Presentation by Dowchu Dukpa, Project Manager <ul style="list-style-type: none"> • Health and safety recommendation status • Overall updates and plan • Issues for discussion and approval |
| 4 | 10:40-11:20 | Discussion |
| 5 | 11:20-11:40 | Tea Break |
| 6 | 11:40-12:00 | Presentation by Karma Dupchu, GLOF Project Manager,
Department of Energy on GLOF early warning system |
| 7 | 12:00-12:40 | -Presentation by Chencho Tshering, GLOF Project Manager,
DDM, MoHCA

-Presentation by consultant on Qualitative Based Survey
(QBS) |
| 8 | 12:40-13:30 | Discussions |
| 10 | 13:30 | Lunch |

Reducing Climate Change-Induced Risks and Vulnerabilities from Glacier

Lake Outburst Floods in the Punakha-Wangdue and Chamkhar Valleys

GLOF Risk Mitigation Project, Lunana

STANDARD OPERATING PROCEDURES (SOP) FOR EMERGENCY

The following SOPs shall be strictly followed by the project officials for handling all emergency cases during the implementation of the GLOF Risk Mitigation Project at Thorthormi Lake in Lunana.

1. In case of emergencies during journey (to & from project site), the following procedures shall be adapted:

As soon as the project officials are being notified of any emergencies to project employees (staff and workers), there shall be prompt coordination between the store incharges in Laya and Damji, medical transit camp in Rodophu and DGM Head Quarter in Thimphu. Depending on the magnitude of emergency, appropriate measures should be taken to provide medical attention at the earliest and plan for evacuation if required. Mode of evacuation shall be discussed within the involved project officials (including the medical personnel) present at the site and must be communicated to Project Director at telephone No.323096/322879 or +975-17602175 for further course of action and necessary arrangements.

SOP for Emergency during journey to/from project site			
	<i>Action</i>	<i>Responsibility</i>	<i>Contact details</i>
1	Medical attention to emergency <i>If an emergency comes to the notice of any other project official, they should immediately contact the project medical personnel</i>	Project doctor (and HAs)	Project doctor/HA: Rodophu Satellite Phone: +8821679110647 Tarina Satellite Phone: +8821679110766
2	Notify project management about emergency (project manager, project team leader, project director)	Project medical doctor (and medical team members stationed at Rodophu and Tarnia).	Project Director: +975-17602175 Project Manager: +975-17609487
3	Assistance and coordination in case of emergency		Chado Rinchen, Takshimakha Store Incharge: +975-17618677 Thukthen Dorji, Gasa Dzongkhag rep. to the project: +975-17714128
4	Discuss mode of evacuation	Project doctor and	

		project manager	
5	Inform Project Director about mode of evacuation, and for further course of action and necessary arrangements	Project manager	Project Director 323096/322879 or +975-17602175
6	Lead decisions for further action and necessary actions in coordination within DGM/MOEA and with UNDP, including arrangements of evacuation, involvement of police, district authorities and insurance company, contact to relatives, and information to the Media.	Project director / manager	UNDP 322424, ext. 157 / 141 RICBL: 321037/322426 Thukthen Dorji, Gasa Dzongkhag rep. to the project: +975-17714128

2. In case of emergencies at the project site, the following procedure shall be strictly followed by the project officials:

- a. Upon arrival of all the team members at the project site, a medical committee chaired by the project medical doctor shall be established to deal with all kinds of medical emergencies at the site
- b. As soon as a medical emergency takes place at the project area (site/camp), immediate medical care shall be provided by the project medical team. Based on the assessment of the project medical doctor and Health Assistants, an emergency meeting of the medical committee shall be organized for further course of action (minutes to be maintained). Resolution of the committee shall then be communicated to the project director @ 323096/322879 for necessary action
- c. In case of life threatening situation to the patient and based on the message from the project site, HQ (DGM) shall immediately request the Bilateral Division, Ministry of Foreign Affairs for Chopper hiring from Indian Army in line with 25th Cabinet resolution for emergency evacuation for the GLOF Project
- d. In case of medical emergencies that are not life threatening to the patient, evacuation modalities (if at all required) shall be decided by the project medical committee at the site. However, the decision of the committee must be communicated to the Project Director for information and necessary arrangements

Note: Depending on weather conditions and processes required thereof, chopper could be made available within 2-3 working days

- e. Project medical Doctor shall be stationed at the project site throughout the project duration. In case of evacuation by land, HA shall accompany the evacuation team. One

satellite phone shall be handed over to the evacuation team and one shall be kept at the project site as emergency backup. Normal communication shall be done through HF set

SOPs for Emergency at project site			
	<i>Action</i>	<i>Responsibility</i>	<i>Contact details needed</i>
1	Immediate medical care shall be provided by the project medical team.	Project doctor and HA	
2	If required, conduct emergency meeting of the medical committee to discuss action and mode of evacuation (minutes to be maintained).	Project doctor	
3	Inform the project director about decision and for further course of action and necessary arrangements	Team Leader	Project Director 323096/322879 or +975-17602175
	In case of life threatening situation and need for evacuation by chopper, the project director shall request the Bilateral Division, Ministry of Foreign Affairs for Chopper hiring	Project director/ Project Manager	Bilateral Division, Ministry of Foreign Affairs (include contact details) Tel No.: 322278/322781/322771
	In case of medical emergencies that are not life threatening to the patient, evacuation modalities (if at all required) shall be decided by the project medical committee at the site, and communicated to the Project Director for information and necessary arrangements	Project doctor / medical committee	Project Director 323096/322879 or +975-17602175
4	Lead decisions for further action and necessary actions in coordination with DGM/MOEA and UNDP, including arrangements of evacuation, involvement of police, district authorities and insurance company, contact to relatives, and information to the Media.	Project director / manager	UNDP 322424, ext. 157 / 141 Thukthen Dorji, Gasa Dzongkhag rep. to the project: +975-17714128 RICBL: 321037/322426

In case of unfortunate incidents, project shall immediately contact police for necessary investigation. A medical and police report shall be made available. Further RICBL shall also be contacted within 7 days (1 week) of the incident as required in GPA (Group Personal Accident) insurance policy availed by the project.

Reducing Climate Change induced Risks and Vulnerabilities from GLOF
Financial Review April 2011

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 budgeted 2011	USD balance	Remarks and budget re-appropriations	Suggestions for the remaining project period (2012)
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	59,500	10,365		2012: Finalization of DM Bill, revision of NDRMF, - USD 25,000 budget re-appropriation from
	DGM	GEF-LDCF		16.95%	50,000	-	-	-	29,500	20,500		database; catalogue of climate risk information.
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	563,000	723,539		2012: Balance budget will be required in case of extension of the mitigation work with one additional work season in 2012
		ADA		17.20%	465,000	-	306,269	-	118,000	40,731		
OUTCOME 3: Vulnerable communities in the Punakha-Wangdi Valley are able to receive GLOF early warnings in time to reduce human and material losses	DoE	GEF-LDCF	823,430	81.48%	670,966	-	17,913	88,055	615,470	29,400.00	USD 21,072 were transferred by DDM to DOE under outcome 3 (corrected in balance funds available).	2011-12: 3.5: evaluation of EWS, manual and replication plan. The PHPA-phase II will cost-share additional expenditures for the EWS-component, so there will be no further expenditures under the project beyond 2012. - USD 29,400 re-appropriation from DDM-outcome 3 to cover funding gap.
		ADA		18.52%	152,464	-	-	1,113	193,000	41,650	Funds released for 2010 carried over to 2011. Due to change in exchange rate, 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	-	-	9,076	95,000	35,924	USD 21,072 were transferred by DDM to DOE under outcome 3 (corrected in balance funds available).	2012: GLOF hazard zonation of Chamkar, EWS-awareness and mockdrills, QBS by end of project. - USD 25,000 budget re-appropriation to DDM-outcome 1 . - USD 29,400 budget re-appropriation to DoE-outcome 2
		ADA		36.60%	93,000	-	-	-	-	93,000		
OUTCOME 4: Learning, evaluation and adaptive management	DDM	GEF-LDCF	57,200	34.97%	20,000	-	-	-	-	20,000		2012: Capture lessons of the project as a whole by the end of the project, International workshop by the end of the project
	UNDP	ADA		65.03%	37,200	-	-	-	-	37,200		
Monitoring & Evaluation	UNDP	GEF-LDCF	60,000	100%	60,000	-	-	20,545	5,575	33,880		2012: Terminal evaluation, including Environmental Impact Assessment.
	UNDP	UNDP	-	-	-	816	2,854	2,934	-	-	Funds programmed and lapsed in 2010	-
Facilities and Administration (7%)	UNDP	ADA	52,336	-	52,336	-	21,439	-	21,770	9,127	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	-	-	Realized gain/loss is due to fluctuations in exchange rates between USD and Bhutan	
unrealized loss/gain ADA		ADA	-	-	-	-	16,269	730	-	-	Ngultrum. Loss is indicated with "-" and the amount.	
unrealized loss/gain UNDP		UNDP	-	-	-	-	-	-	-	-		
TOTAL		All	4,245,050	100%	4,245,050	43,450	682,220	873,743	1,700,815	944,822	ADA-contribution may vary depending on change in exchange rate	

Total GEF-LDCF	GEF-LDCF	-	81.15%	3,445,050	42,634	367,927	868,965	1,368,045	794,078		
Total ADA	ADA	-	18.85%	800,000	-	311,439	1,843	332,770	153,948	ADA-contribution of EUR 600,000 were in project documents budgeted as USD 800,000, however the actual contributions received for 2009 (USD 311,439) and 2010 (USD 140,056.02) amount to in total USD 451,495 due to fluctuations in the exchange rate. The contribution for 2010 were almost entirely carried over to 2011 due to implementation delays.	
Total UNDP	UNDP	-	-	-	816	2,854	2,934	-	-	UNDP funds not budgeted in the project document, however allocated to supplement M&E	