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DRAFT MINUTES OF MEETING

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

DGM-UNDP/GEF 8th Project Board Meeting

Date: July 14, 2010

Location: Conference Hall, DGM, Ministry of Economic Affairs, Thimphu

The 8th Project Board Meeting was held on July 14, 2010 at Department of Geology and Mines Conference Hall, Thimphu. The meeting started with opening remarks by the board chairman, Dasho Sonam Tshering, Secretary, Ministry of Economic Affairs. The chairman welcomed all the board members and informed the members that the meeting was called to discuss the recent unfortunate incidents resulting in the loss of lives of two workers while proceeding to Lunana. The chairman thanked the members for attending the meeting in spite of their busy schedule and obligations.

This was followed by a presentation by the Project Manager from the Department of Geology and Mines. The project manager presented the project progress, including the recent incidents and actions taken by the project management, as well as a number of other issues for consideration of the Project Board. He also presented to the board, the safety measures that were put in place by the project prior to the incidents and possible additional measures to avoid such incidents in future. The project management also submitted to the board proposals to provide support to the families of the victim.

Discussions and approval

The board discussed a number of issues submitted by the project management including those put up by some of the board members.

The first issue concerns the UNTV production "Tsunami from the Sky". On submission of the issue to the 8th Board meeting, members felt that since the film has already been distributed and broadcast and since it is in the interest of the project to disseminate information about the project, the board endorsed and approved the documentary clip. However, the Hon'ble chairman reminded that as per the minutes of the 4th project board meeting, future documentary productions should be endorsed by the board before distribution for public viewing.

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The second issue discussed was pertaining to provision of mobile voucher for the Gasu Dzongkhag representative to the mitigation project in Lunana. The project management submitted to the board that the Gasu dzongkhag representative is mainly responsible for arranging transportation which entails frequent use of mobile phone to contact local heads of three Gewogs of Goen Khatey, Goen Khamey and Laya. Moreover, the dzongkhag representative has to be in constant touch with relevant sectors whenever there is road blockage which is quite frequent at this time of the year. The board, based on the submission and justification by the project management decided to approve Nu.500/- per month as mobile voucher charges to the Gasu Dzongkhag representative during active project season from June to October every year till completion of the project.

With reference to financial management of the project, UNDP informed that it has been approving release of funds as proposed by the project management, despite the delays in reporting expenditure. This is in view of the remote location of the project site and the difficulty in compiling financial updates as per regular schedules agreed between RGoB and the UN. The project management was, however reminded to exercise due diligence in reporting expenditures as early as and as and when updates are available without having to wait for deadlines. This is a special waiver given the unique situation of the project.

Next the project manager reported to the board on the incidents resulting in the demise of two project workers while proceeding to the worksite. The project manager informed the members on the safety arrangements put in place before the start of the working season in 2010. This includes thorough medical screening of workers and inclusion of a medical doctor and Health assistant during recruitment of workers to cross-check medical test results and certificates issued by the hospital. The workers were also briefed by the medical team at Damji before proceeding to the site and issued guidelines on the do's and don'ts along the route. Moreover, in line with the 7th board meeting, rations during the journey were issued by the project at specific locations namely Damji and Taksemakhang, Laya. In spite of all the arrangements in place, the project lost two workers on the way to the worksite. Based on medical and police reports both the workers passed away due to high altitude sickness. The project manager informed the board that information from co-workers indicate that some workers do not follow instructions and travel too fast with the intention of reaching the site as early as possible. They were also believed to be travelling without preparing proper food in spite of free rations issued at specific locations by the project. It was also observed that the two deceased workers had complained of sickness during the journey and had not heeded to the advice of their friends to return. The project management reported to the board that the cremation of the deceased workers were conducted in consultation with the relatives of the deceased and after investigation by the police and medical examination by the project medical doctor and health assistant.

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The project management submitted to the board proposals to support the families of the deceased with a cash compensation worth Nu.30,000/-. The board, decided to provide a sum of Nu.20,000/- for funeral expenditures and Nu.20,000/- as *Sem thue/ex-gratia* payment to the victims' family members. This amounts to a total sum of Nu.45,000/- as financial support from the project to each of the two families of the deceased. The Board also considered this as a baseline in case of future incidents.

Finally, the project management presented proposals on the plans and strategies to prevent such unfortunate incident in future. For the return from the worksite in 2010, the donation of a Gamow bag by a local businessman was acknowledged by the project board. The Board instructed the project manager to officially acknowledge the donation by the local businessman. The bag will be taken to project site in August, and additional medical arrangements will be made when the workers return from the worksite in October 2010 by positioning the project doctor or Health Assistant at either Tarina or Rodophu. From next year, the proposal was to include mandatory acclimatization of one day each at Taksemakhang (3,500m) and Rodophu (4,200m); positioning of medical staff and Gamow bags or Portable Altitude Chamber (PAC) at strategic places along the route (Taksemakhang or Rodophu). The project board endorsed the proposal for 2010 and instructed the project management to prepare comprehensive proposal for additional safety measures for 2011 and onwards in consultation with the medical doctor. The proposal will be submitted to the next board meeting to be held upon completion of the 2010 mitigation work.

The project management also reported to the board that the mid-term review of the project is ongoing and that preliminary findings were presented to all stakeholders in the morning. The final report of the mid-term review will be presented to the board at a later date.

Key decisions and approval

The following key decisions were taken at the 8th Project Board meeting:

- UNTV production "Tsunami for the Sky" approved by the project board
- Nu.500/- per month reimbursement for mobile voucher expenditures for the Gasadzongkhag representative for 5 months (June-October) every year till completion of the project
- Detailed project midterm review to be presented at the next project board meeting
- Expenditures of the project to be reported to UNDP as early as possible without having to wait for the quarterly deadlines.
- Payment of compensation worth Nu.45,000/- from the project to each of the families of the two deceased workers. This include Nu.20,000/- for funeral process and Nu.25,000/- as *Sem Thue/ex-gratia* payment.

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- Project management to prepare a comprehensive proposal for additional safety measures to prevent similar incidents in future for discussion and approval at the next board meeting
- Project management to implement the safety measures suggested while workers return from the site in October 2010.
- Based on the medical and police report, a media statement on the incidents and actions taken to be prepared and shared among the board members before public announcement

Date: July 14, 2010

Attachments

1. List of participants
2. Meeting Agenda
3. Brief report on the recent incident and project progress

Meeting was held on July 14, 2010 at Department of Geology and Mines, Ministry of Economic Affairs, Thimphu. The chairman welcomed the board members and informed the members that the meeting was called to discuss the recent unfortunate incidents resulting in the loss of lives of two workers while performing the project. The chairman thanked the members for attending the meeting in spite of their busy schedule and obligations.

This was followed by a presentation by the Project Manager from the Department of Geology and Mines. The project manager presented the project progress, including the work completed and actions taken by the project management, as well as a number of other issues for consideration of the Project Board. He also presented to the board, the safety measures that were put in place by the project prior to the incidents and possible additional measures to prevent such incidents in future. The project management also submitted to the board proposals to provide support to the families of the victim.

The project management discussed a number of issues including the project progress, including the work completed and actions taken by the project management, as well as a number of other issues for consideration of the Project Board. He also presented to the board, the safety measures that were put in place by the project prior to the incidents and possible additional measures to prevent such incidents in future. The project management also submitted to the board proposals to provide support to the families of the victim.

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Attachment-1

List of Participants 8th 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	Deputy RR, UNDP	bakhodir.burkhanov@undp.org
3	Sonam Yangley	Director General, DGM, MoEA	
3	Yeshe Dorji	Project Director, GLOF Project, DGM	ydorjidgeo@yahoo.com
4	Sangey Tenzing	Director General, DoR, MoWHS	sangeyt@druknet.bt
5	Namgay Wangchuk	Director, DDM, MoHCA	
5	Dasho Sonam Jigme	Dzongdag, Gasa Dzongkhag	sjigme@gmail.com
6	Karma Raptan	Head, Env. Unit, UNDP	Karma.raptan@undp.org
7	Anne Erica Larsen	UNDP	Anne.Larsen@undp.org
8	Chencho Tshering	Project Manager, GLOF Project, DDM	chencho@mohca.gov.bt
9	Dowchu Dukpa	Project Manager, GLOF Project, DGM	dawchu@gmail.com
10	Karma Chopel	Head, HMSD, DoE, MoEA	hmsd@druknet.bt
11	Karma Dupchu	Project Manager, GLOF Project, DoE	kdupchu@druknet.bt
12	Tshering Penjor	GNH Commission	tsheringp@gnhc.gov.bt
13	Jambay Zangmo	GNH Commission	jzangmo@gnhc.gov.bt
14	Jamyang Chopel	Dy. Project Manager, GLOF Project, DGM	



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Attachment-2

AGENDA FOR THE 8th 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 Geology and Mines, Conference Hall

Date : July 14, 2010 (Wednesday) Time: 3:30 PM

Agenda item 1: Opening of meeting by Chairperson, Dasho Sonam Tshering,
 Secretary,
 Ministry of Economic Affairs

Agenda item 2: Adoption of last PB minutes

Agenda item 3: Brief presentation on status of the project (By Dowchu Dukpa,
 Project Manager, GLOF Project, DGM

Agenda item 4: Brief presentation on the recent incidents to the project workers and
 actions taken by DGM (By Yeshe Dorji, Project Director, GLOF
 Project, DGM)

Agenda item 5: Any Other Business
 Refreshment

Attachment-3

“Reducing Climate Change-Induced Risks and Vulnerabilities from Glacier Lake Outburst Floods in the Punakha-Wangdue and Chamkhar Valleys”

1. Work Force Recruitment

The national work force recruitment for 2010 Thorthormi Lake GLOF risk reduction work was announced through media (print and TV) from 3-6 June 2010 and registration was done at the DGM office from 17-20 June 2010. Based on Board directives preference was given to 2009 workers. Registration for 2009 worker was done from 17-18 June and remaining two days for new applicants. Exactly 340 workers were registered by 20th June out of which 60 workers from 2009 and remaining are new applicants. The recruitment process was done in line with Board's instruction and the following project officials were involved in the registration process:

- Dr. Rinzin, Medical Doctor
- Sangay Dorji, Health Assistant
- Dowchu Dukpa, Project Manager
- Karma Toeb, Team Leader
- Karma Tenzin, Project Engineer (Civil)
- Lobzang Gyenden, Store Incharge, Thanza
- Chado Rinchen, Laya Store Incharge
- 6 support staffs from DGM

Document requirements for selection of the workforce recruitment were discussed among the project management and project medical staff and the following are mandatory documents to be produced during time of selection:

- Medical Certificate from Jigme Dorji Wangchuk National Referral (JDWNR) hospital for working in high altitude after going through the following medical screening recommended by the project medical doctor:
 - Chest x-ray to rule out lung diseases
 - Blood sugar levels (fasting and random) for diabetes
 - ECG to rule out heart diseases
 - Blood pressure for hypertension
 - Kidney function tests and liver function tests to rule out any kidney and liver disorders
 - The mental status of the person (in 2009, there was one worker suffering from depression and was on anti-depressants medicine)
- Age limit: 18-50 years
- A copy of citizenship Identity Card
- Two passport size photos

Medical test results and certificate issued by the hospital were cross-checked by the project doctor and HA during recruitment. Few applicants were rejected based on negative medical report. The applicants were also asked about their medical history by the health representatives.

2. Recent Incidents to the project workers

The project management was informed by the Laya store incharge on June 25th that one of the workers passed away on 25th June 2010. As per the report, the worker Mr. Sherub from Mongar district got sick before crossing the highest pass (Gang La Karchu, 5200m) and was brought back to Laya by his friend and army personnel and referred to RBA outpost medic at Takshimakhang where he succumbed to death on 25th June due to high altitude sickness. Upon consultation with deceased's relatives, DGM sent representatives and Damji store helpers along with deceased's brother to Laya on 27th June. The cremation was done at Takshimakhang, Laya on 30th June 2010. Upon our request Gasa Dzongkhag also promptly deputed police personnel to carry out investigation. The police investigation report and medical report is already with DGM which will be required for processing insurance claim from RICBL.

Based on report received from Project site at Thanza, the other worker, Mr. Indra Bahadur Subba, from Tsirang, died on 27th June after crossing the high pass at a place called Tarina (which is 3 days walk downstream of project base camp at Thanza). As soon as the deceased's colleague informed the project base camp, project officials immediately rushed down to Tarina along with Project medical doctor. After consultation with the deceased's father and relatives, they agreed to cremate the body at Tarina. DGM also immediately requested Gasa Dzongkhag to repute police personnel to Tarina to carry out necessary investigation and report thereof. DGM has been informed that police from Gasa Dzongkhag left on 4th July 2010 and reached Tarina on 8th July. The cremation of body was done on 9th July after investigation by the police and medical examination by the project doctor. Also since the family members of the deceased cannot go to witness the funeral process, the deceased's father and relatives have requested us to at least inform the deceased's friend Mr. Santosh Ghalley and Lok Man Rai, to be present during the funeral process. Their request has already been forwarded to the project site and it has been confirmed that two of deceased's friend were there at the time of cremation at Tarina.

The project management, immediately after hearing the news from site informed the Project Chairman and UNDP Country Office. On 3rd June 2010 the GLOF Project Director and Manager met with Resident Representative (RR) of UNDP and a consensus on the unfortunate incident was arrived and talking point was drafted and shared. Further a need to call for an immediate Project Board meeting was discussed and arranged accordingly.

As per the medical report, both the workers died most likely due to altitude sickness. Also based on information from other co-workers, the first victim got sick at Rodophu and his friends insisted him to return. However, he didn't listen to his friend and stayed at Rodophu for 2 days. On the 3rd day his condition deteriorated and he was then brought to Taksemakhang by his friends and RBA personnel. The second victim was believed to be sick right from Gasa itself. His friends suggested him to return but he did not heed to his friends' suggestion and proceeded further. After reaching Tarina his condition deteriorated and finally succumbed to death.

3. Future Strategies

In 2009 mitigation there were no cases of casualty except for two workers who suffered severe frost bite while returning from the site. The two death cases in 2010 completely took the project management by surprise and in order to prevent such unfortunate incidents in future (while returning from site in October 2010 as well as for 2011 mitigation work) and based on lessons learned from the recent incident, the project management is proposing the following strategies:

- i. When the workers return from the site in October 2010, medical doctor plus few project staff should be stationed at Tarina with sufficient medical stocks
- ii. Project site will be instructed to inform the workers to follow Gasa-Lunana route while returning in October
- iii. In 2011 mitigation work, it should be made mandatory for the workers to halt one day each at Takshimakhang and Rodophu for acclimatization
- iv. Options to procure portable oxygen canister may be pursued and if found feasible should be kept either at Takshimakhang or Rodophu where project medical personnel will have to be stationed.
- v. For two death cases, the project is proposing to provide, as a condolence, a sum of Nu.30,000/- each besides the insurance claim of Nu.108,000/- from RICBL. The proposed amount may be covered from budget head: Contractual Services-Individual (71400) of the DGM-UNDP/GEF GLOF Project.

4. Project Progress and update

In spite of the unfortunate incident, the mitigation work at Thorthormi is going on as per schedule. The following are progress and update of the 2010 lake lowering effort at the Thorthormi Lake in Lunana:

Physical achievement and progress

- Out of 339 workers left from Damji, 329 have reported to the project site (8 workers returned after feeling ill on the way); about 30 workers being recruited from Lunana and nearby areas.
- Excavation work at the lake started with effect from July 1, 2010 and requested Department of Disaster Management to inform the downstream communities
- About 80% of project goods trans-shifted to Laya and from Laya about 30% trans-shifted to Thanza
- Project Mid Term Review (MTR) carried out from 6-14 June 2010
- Project HF communication system at Thanza installed and functional and daily updates are being reported through the HF

Financial achievement (Total Outlay~Nu.36 million for 2010)

- **First Quarter (Jan-Mar 2010)**
 - Fund requested: Nu. 2,837,738.59 (previous balance)+ 640,000 (new request)= Nu. 3,477,738.59
 - Expenditure: Nu. 143,501.80

[Brief Report on the Recent Incident and Project updates]

- **Second Quarter (Apr-Jun 2010)**
 - Fund requested: Nu. 3,334,236.79(balance)+Nu. 6,587,600.00(new request)=Nu. 9,921,836.79
 - Expenditure: Nu. 1,454,815.00 + Nu. 2,792,128.80= Nu. 4,246,943.80
- **Advance payments:**
 - TA/DA for government staff: Nu. 2 million
 - Workers wage advance: Nu. 3 million (Nu.2000/month for 360 workers + Nu.3000/- for journey (taken to the project site)