

**THE SECOND MEETING OF NEPAL-INDIA JOINT COMMITTEE ON
INUNDATION AND FLOOD MANAGEMENT [JCIFM]
(7TH – 12TH January, 2010)**

The Nepalese delegation of the Nepal-India Joint Committee on Inundation and Flood Management (JCIFM) welcomed the Indian delegation at Inerwa, Dhanusha just across the Nepal-India border on 7th of January, 2010. The Indian delegation was led by Mr. M. U. Ghani, Member, Ganga Flood Control Commission (GFCC) and the Nepalese delegation was led by Mr. K. R. Dahal, Director General of the Department of Water Induced Disaster Prevention (DWIDP).

The Joint Committee made joint field visit to the completed, ongoing and proposed embankment and flood protection works along the Kamala, Bagmati and Lalbakeya rivers.

A) FIELD VISIT

A-I Kamala River

The field visit to Kamala took place on 7th and 8th January, 2010. The committee visited the right bank of the Kamala river from Ch. 0.00 km to Ch. 5.50 km at Inerwa.

Major part of the embankment work from Ch. 2.10 km to Ch. 5.50 km has been completed. But some sections are still incomplete and need to be completed with proper compaction using proper soil. The AFS at Ch. 2.60 km had been completed and the spurs in that area were seen to be properly tagged to the embankment. The embankment work from Ch. 0.00 km to Ch. 2.10 km is proposed to be taken up during working season of 2010. The WIDP, Janakpur Division, had proposed that a 25 meter span bridge to be constructed at Ch. 5.20 km. The committee suggested that an opening in the embankment be provided with AFS of hume pipe and flap valve to prevent flood water of the river from entering in the country side or vice versa. The committee also suggested that satellite imageries of the river before and after the flood of 2009 be obtained so that the change in river morphology could be seen to decide the alignment of the proposed embankment.

On January 8, 2010 field visit was taken up along the left bank from Ch. 27.15 km to Ch. 18.90 km i.e. Nirdhana to Bhediya and from Ch. 15.05 km to 14.10 km i.e. at Chattari. Some parts of the embankment were complete whereas at some places the work was in progress. The committee made observations and suggested as follows:

HR

Free

- a) The earthwork in the embankment needs proper compaction and compaction tests should be carried out regularly. For this purpose, concurrent quality evaluation of the work under execution should be carried out.
- b) The spurs should be properly tagged with the embankment with 5 meter length boulder pitching on the upstream side, which was not done despite instruction by the committee during its previous visit.
- c) The embankment side slope was found to be inadequate at a number of places. This needs to be brought to the design section.
- d) The overall progress of embankment works was slow and needs to be expedited.

A-II Bagmati River

The field visit to Bagmati took place on 9th January, 2010 for both left and right bank. The construction of a structure was ongoing at Ch. 15.075 km i.e. at Chataul. The WIDP, Division Office, Bara explained that the structure is an irrigation outlet with the provision of sluice gates to function as Anti Flood Sluice (AFS) during monsoon. The committee noted that the structure was not properly aligned to the existing canal and that approved drawing was also not available at the site. The Division Office explained that the canal was under the jurisdiction of the local District Development Committee and the structure was aligned according to their request. The committee directed that approved working drawing should be available at site. The committee inspected the construction of four spurs from Ch. 10.633 km to Ch. 9.826 km i.e. at Khaerwa. The Division Office stated that the design and construction of the spurs were as per parameters fixed by the erstwhile Sub Committee on Embankment Construction (SCEC). The embankment section was complete including grass sods turfing and found satisfactory. The committee then proceeded to the right bank at Ch. 23.50 km i.e. at Pakha. The embankment work was going on to close the gap there (1100m). The Team noted that the borrow pit adjacent to the embankment toe on the river side may allow parallel flow just near the toe of the embankment which will damage the embankment. The committee instructed the Division Office to immediately fill all such borrow pits. The committee further instructed the Division Office not to adopt such practice in future. The committee suggested WIDP, Division Office Bara to complete the works within time schedule. The design section should be restored as the slopes of the embankment are not adequate. The compaction test should be carried out during execution and sent to GFCC for the needful.

A-III Lalbakeya River

The field visit to Lalbakeya embankment works took place on 10th January, 2010. The committee visited the left bank at Ch. 3.50 km upstream of Nepal Eastern Canal (NEC) i.e. at Jingarwa. The embankment section was alright but the grass sods turfing was yet to be done. The work done was found satisfactory. The committee then visited the right bank at Ch. 1.00 km upstream of NEC i.e. at Rajpur. The embankment work was complete along with revetment works. The committee directed WIDP, Division Office Bara to complete the works within time frame.

Joint Committee meeting at Kathmandu

The Joint Committee meeting took place at Kathmandu on 11th and 12th January, 2010. The list of participants of the meeting is at *Annex-I* and for field visit is at *Annex-II*

Decisions of the Joint Committee on inundation & Flood management (JCIFM)

EXTENSION OF EMBANKMENTS

B) ONGOING WORKS

B-I Ongoing Embankment work along Bagmati River

The estimated cost of protection works in packages C and D approved in the 12th meeting of SCEC was NRs. 20.56 crore excluding VAT for which after tendering, the Gol contribution including contingencies but excluding VAT was NRs. 16.327 crore. 50% of this amount i.e. 8.163 crore, has already been released as decided in the 12th meeting of SCEC and duly noted in the first meeting of JCIFM. In the same way the bid amount for the work packages re-tendered and that for closing the gap at Pakaha including contingencies but excluding VAT come to be NRs. 4.87 crore. 50% of this amount i.e. NRs 2.43 crore has already been released as per decision of the first meeting of JCIFM. The physical progress of all works as stated by the Division Office has been reported to be 33%. The Division Office was instructed to speed up its progress and submit utilization certificate for the balance installment of funding.

Government of Nepal had carried out emergent flood protection works during the floods of 2009 for which the utilization certificate have already been submitted. The Committee recommends reimbursement of NRs. 0.409 crore for the emergent flood protection works during the floods of 2009.



B-II Ongoing works along Kamala river

The ongoing works in Kamala is being carried out as decided in the first meeting of JCIFM. The use of satellite imagery is required which may be procured at the earliest before execution of work at critical locations, where it is apprehended that river is likely to change its course.

The alignment of the embankment and other works has to be decided according to the morphological condition of the river.

The utilization certificate has been submitted by Government of Nepal for the emergent flood protection works during the flood of 2009. The Committee recommends reimbursement of NRs. 0.80 crore for the emergent flood protection for works of 2009 as decided in first meeting of JCIFM

B-III Ongoing works in Lalbakeya river Embankment

A cost estimate of NRs 22.56 crore inclusive of contingencies but excluding VAT to extend the embankment 5.4 km upstream of NEC and construct 6 studs on the downstream was placed before SCEC which decided that tenders for the same may be floated. The first meeting of JCIFM endorsed 8 such tenders and works to be given to User Groups for which the total GoI contribution was NRs. 21.45 crore. As per the decision of the Committee in the first meeting of JCIFM, 50% of this i.e. NRs. 10.73 crore was released. The overall physical progress of the works as stated by the Division Office was reported to be 75%. The utilization certificate has already been submitted. The Committee recommends the release of the balance 50% i.e. NRs. 10.73 crore. The utilization certificates for emergent and flood protection works carried out during the floods of 2009 had also been submitted by Government of Nepal. The Committee recommends reimbursement of NRs. 0.245 crore for the emergent flood protection works of 2009.

C) PROPOSED WORKS

C-I For Bagmati river

It was decided in the first meeting of JCIFM that the embankment should be made all weather motorable by using 15 cm thick RBM in a width of 3.50 m and that the related tender for the RBM may be invited. Accordingly, the WIDP Division Office Bara invited tenders for a length of 30.48 Km (26.15 km on left bank and 4.33 km on right bank) of the river for at an estimated amount of NRs. 8.99 crore inclusive of contingencies but excluding VAT. The bid amount of 5 work packages is NRs. 8.47 crore. The total GoI contribution including contingencies work out to be NRs. 8.90 crore. These work packages have been tendered as per GoN financial

regulations and approved by the competent authority of GoN. The summary of works is at *Annex-III* The Committee endorses the tenders as approved by GoN. The committee recommends the release of 50% of these amounts i.e. NRs. 4.45 crore.

The balance payment would be made on receipt of utilization of 75% of funds released and inspection of the works by the Committee.

C-II Work along the Lalbakeya river

In the first meeting of JCIFM, the Committee had decided that the plan of the next stage of construction before the monsoon of 2010 should be prepared with the details of design and estimate all complete and submitted in the next meeting of JCIFM for approval. Accordingly, the Division Office estimated the works to be carried out up to Ch. 11.50 km upstream of NEC which is 12.2 Km along both banks and a flood sluice along the right bank of Lalbakeya near Indo-Nepal border. The estimated amount of these works including contingencies but excluding VAT is NRs. 19.32 crore for which tenders were floated. The bid amount for eight work packages tendered is NRs 16.13 crore and five work packages to be given to User Groups is NRs. 2.186 crore. These work packages have been tendered as per GoN financial regulations and approved by the competent authority of GoN. The summary of works is at *Annex-IV* The Committee decided to endorse the tenders and works to be given to User Groups as approved by GoN. The total GoI contribution including contingencies is NRs 19.23 crore. The Committee recommends to release 50% of this i.e. NRs. 9.615 crore.

The balance payment would be made on receipt of utilization of 75% of funds released and inspection of works by the Committee.

C-III Works to be carried out in Kamala river embankment

JCIFM during its first meeting had observed that the work should be taken up in continuation from the Nepal-India border. Furthermore, the embankment works are to be completed within five working seasons as decided in the eleventh meeting of the erstwhile SCEC. As such during the working season of 2010, it has been planned to execute works for a length of 10.55 km that is from 0 km to 10.55 km along the left bank and for a length for length of 11.30 km i.e. from 0 km to 2.1 km and from 6.9 km to 16.10 km along right bank. This work will be carried out in two phases. In first phase works will be taken up from 0 km to 6.2 km along the left bank and from 0 km to 2.1 km and revetment work from 15.65 km to 18.75 km along right bank. The estimated cost of works to be completed before the flood of 2010, is NRs 33.618 crore inclusive of contingencies but excluding VAT. The bid amount of seven work packages excluding VAT is NRs. 15.933 crore. Similarly,

seven work packages to be given to user groups excluding VAT is NRs. 1.769 crore. The total GoI contribution including contingencies for first phase is NRs.17.698 crore. These work packages have been tendered as per GoN financial regulation and approved by the competent authority of GoN. The committee decided to endorse the tenders and works to be given to user groups as approved by GoN. The summary of works is at *Annex-V (A) and V (B)* It is recommended to release 50 % of this amount i.e. NRs.8.85 crore (for works of first phase).

The balance payment would be made on receipt of utilization of 75% of funds released and inspection of works by the Committee. All the tendered works should be completed before the onset of monsoon 2010

C-IV Detailed Project Report for extension of embankment along Khando River

It was decided in the eleventh meeting of SCEC that the DPR for Khando river be revised. Accordingly, the Nepalese side provided a revised DPR to the Indian side for examination. The estimated amount of this revised DPR was NRs. 47.743 crore and requested SCEC to approve the DPR during its twelfth meeting. The same request was reiterated in the first meeting of JCIFM. The Indian side had informed that the present cross-section of the river be compared with the past one and the findings be forwarded to GFCC. The Joint Committee would consider the DPR at the next meeting of JCIFM. The Nepalese side informed that the comparison of cross section could not be possible due to the onset of monsoon. It was decided to send the same to GFCC at the earliest.

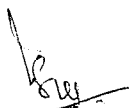
C-V Miscellaneous

1) Bagmati embankment - recovery of advance to contractor

As regards recovery of mobilization advance given to the contractors of Package C & D of Bagmati embankment, Nepalese side informed that the process of recovery of mobilization of advance has been taken up. It was emphasized to expedite the recovery process.

2) Preparation of scheme

All the proposed schemes should be based on latest satellite imagery/maps in future.



D) FLOOD INUNDATION ISSUES

D-I Kalkalwa Bund and Laxmanpur Barrage

JCIFM referred to the discussions held during the fifth meeting of JCWR. The Nepalese side informed that the DPR for construction of right embankment in Nepalese territory would be submitted within three months through the diplomatic channel.

D-II Rasiyawal-Khurd-Lotan Bund

The 5th meeting of JCWR had decided that the hume pipe outlet on the bund would be replaced by a box culvert of the same size as that of the existing box culverts there. In the same manner, a box culvert would be constructed in Nepal on the north-south gravel road to facilitate drainage of the area between Kunra (Dano) and the road. The Committee decided that the construction works as decided by JCWR both in Nepal and India would be completed before the monsoon of 2010.

D-III Mahali Sagar

As decided in the fifth meeting of JCWR, the matter may be reviewed by JSTC.

D-IV Bairganiya Ring Bund

JCIFM had decided in its first meeting that the Nepalese proposal for construction of embankment along Jhanj river and opening in the ring bund would be jointly studied by both the concerned Contact Officers. The Committee instructed that the Contact Officers should carry out the joint study and the report of the same should be sent to GFCC through diplomatic channel.

E) FLOOD FORECASTING ISSUE

E-I Flood Forecasting Master Plan

In pursuance of the decision taken in the first meeting of JCIFM, the Nepalese side prepared a draft Flood Forecasting Master Plan (2010-2014) for next five years. The master plan broadly includes five strategic activities which are:

- Establishment and maintenance of core observation and monitoring station networks with state of the art real time data transmission system to ensure early data availability for warning purposes.
- Development of flood forecasting models for major flood prone rivers and flash flood guidance system.
- Development of Warning/Alert Rapid Notification System (WARNS) for hydro-meteorological hazards.
- Training and capacity building in flood forecasting and early warning.
- Research and development in hydro-meteorological risk reduction.



The Committee decided that the master plan will be examined by both sides and submit this with their views to JSTC for the needful.

It was further decided that as the real time data acquisition system in Narayani basin is in operation, development of flood forecasting model will be initiated early for Narayani river basin and subsequently for other basins.

E-II Joint Inspection of Sites in Western Part of Nepal

As per recommendation of Task Group III (Bihar) and Task Group III (Nepal), GOI has provided six CDMA mobile sets to GON for use in data transmission for flood forecasting. GOI has also procured a vehicle for inspection of sites in Nepal and is in the process of handing over to GON. Telemetry equipments for 4 sites in Nepal are also under process of procurement by GOI. As informed by GoN, further procurement of CDMA mobile sets would be taken up by GoN itself for data transmission.

The Task Group III (UP) constituted earlier by JSTC could not complete its work as envisaged. JCIFM, therefore, decided to constitute another Task Group to visit the Western part of Nepal for joint inspection of sites and submit the report by 30th April, 2010 to JCIFM. Composition of Task Group is as under:

Nepal side:

1. Chief, Flood Forecasting Section, DHM.
2. Hydrologist Engineer, Flood Forecasting Section, DHM.

Indian side:

1. Superintending Engineer, HOC, CWC, Varanasi.
2. Executive Engineer, MGD-1, CWC, Lucknow.



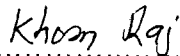
F- I Comprehensive Strategy for Flood Management and Control

The Committee noted that all the three parts of the report i.e. Gandak to Koshi, Koshi to Mechi and Mahakali to Gandak had been completed. It was decided that these reports should be submitted to the respective Team Leaders of JSTC.

It was decided to hold the next meeting of JCIFM in May 2010.

The meeting was held in a cordial atmosphere.

Signed on 12th of January, 2010 at Kathmandu



(K.R. Dahal)

Team Leader/ Director General
Dept. of Water Induced
Disaster Prevention (DWIDP)



(M.U. Ghani)

Team Leader/Member
Ganga Flood Control Commission
(GFCC), Patna

**2ND JCIFM
(JANUARY 7-12, 2010)**

LIST OF PARTICIPANTS


NEPALESE SIDE :

- | | | |
|----|---------------------------------------------------------------------------------------------|--------------------|
| 1. | Mr. K.R. Dahal
Director General, DWIDP | - Team Leader |
| 2. | Mr. Hira Nanda Jha
Deputy Director General
Dept. of Water Induced Disaster Prevention | - Member Secretary |
| 3. | Mr. Sanjaya Dhungel
S.D.E., Water and Energy Commission Secretariat | - Member |
| 4. | Mr. Kiran Shakya
Section Officer, Ministry of Foreign Affairs | - Member |
| 5. | Mr. Bimal Sapkota
Section Officer, Ministry of Finance | - Member |
| 6. | Mr. Amrit Shrestha
S.D.E., Ministry of Irrigation | - Member |
| 7. | Mr. Manik Lal Shrestha
S.D.E., Department of Irrigation | - Member |
| 8. | Dr. Dilip Kumar Gautam
S.D.H, Dept. of Hydrology and Meteorology | - Member |
| 9. | Mr. Sashi Bahadur Bisht
S.D.E., DWIDP | - Member |

Special Invitee

- | | |
|----|---------------------------------------------------------------------|
| 1. | Mr. R.L.Karna, Division Chief
WIDP Division 2, Janakpur |
| 2. | Mr. M.N.Sharma, Officiating Division Chief
WIDP Division 3, Bara |
| 3. | Mr. A.K.Gajurel, Project Manager
River Training Project, DWIDP |
| 4. | Mr. Susheel Acharya
WIDP Division 5, Rupandehi |
| 5. | Mr. Indubhusan Jha
WIDP Division 6, Nepalgunj |

FACILITATOR

- | | |
|----|--------------------------------------------|
| 1. | Mr. Madan K.C., Computer/IT Officer, DWIDP |
|----|--------------------------------------------|
-  

2ND JCIFM
(JANUARY 7-12, 2010)

LIST OF PARTICIPANTS

INDIAN SIDE :

1. Mr. M. U. Ghani
Member (C), GFCC, Patna - Team Leader
2. Mr. K.N. Keshri
Chief Engineer (LGBO)
CWC, Patna - Member
3. Mr. Sanjiv Ranjan
Director (North),
MEA, New Delhi - Member
4. Mr. Prakash Chandra,
Executive Engineer,
Dept. of Water Resources Dept, Govt. of Bihar - Member
5. Mr. Awadhesh Sharma
Director (I/C), MP-II, GFCC, Patna - Member
6. Mr. A.S.P Sinha
Sr. Joint Commissioner (Ganga)
MOWR - Member
7. Mr. Shivji Tiwari,
S.O. (Finance II) MEA, New Delhi - Member
8. Mr. A.K. Ojha, Chief Engineer (Irrigation)
Irrigation Department, Govt. of UP - Member
9. Mr. H.K. Jain
Counsellor (Com)
Embassy of India - Member

kr



2ND JCIFM
(JANUARY 7-10, 2010)

LIST OF PARTICIPANTS DURING FIELD VISIT

NEPALESE SIDE :

1. Mr. K.R. Dahal
Director General, DWIDP - Team Leader
2. Mr. Hira Nanda Jha
Deputy Director General
Dept. of Water Induced Disaster Prevention - Member Secretary
3. Mr. Bimal Sapkota
Section Officer, Ministry of Finance - Member
4. Mr. Amrit Shrestha
S.D.E., Ministry of Irrigation - Member
5. Mr. Manik Lal Shrestha
S.D.E., Department of Irrigation - Member
6. Mr. Sashi Bahadur Bisht
S.D.E., DWIDP - Member

Special Invitees

1. Mr. R.L. Karna, Division Chief
WIDP Division 2, Janakpur
2. Mr. M.N. Sharma, Officiating Division Chief
WIDP Division 3, Bara

FACILITATOR

1. Mr. Madan K.C., Computer/IT Officer, DWIDP

ln

hnp

**2ND JCIFM
(JANUARY 7-10, 2010)**

LIST OF PARTICIPANTS DURING FIELD VISIT

INDIAN SIDE :

1. Mr. M. U. Ghani
Member (C), GFCC, Patna - Team Leader
2. Mr. K.N. Keshri
Chief Engineer (LGBO)
CWC, Patna - Member
3. Mr. Sanjiv Ranjan
Director (North),
MEA, New Delhi - Member
4. Mr. Prakash Chandra,
Executive Engineer,
Dept. of Water Resources, Govt. of Bihar - Member
5. Mr. Awadhesh Sharma
Director (I/C), MP-II, GFCC, Patna - Member
6. Mr. A.S.P Sinha
Sr. Joint Commissioner (Ganga)
MOWR - Member
7. Mr. Shivji Tiwari,
S.O. (Finance II) MEA, New Delhi - Member

kr

[Signature]

Government of Nepal
Ministry Of Irrigation
Department of Water Induced Disaster Prevention
Water Induced Disaster Prevention Division no:-3
Parwanipur, Bara

Proposed Works

Name of the work: Graveling Work for Left and right embankment of Bagmati

S.N.	Description of Works	Chainage	As per approved estimate(NRs.)			Lowest Bid Amount(Excluding VAT) NRs.	GOI(NRs)	GON(NRs)	Lowest Qualified Bidder	Remarks
			Estimated Amount	Contingency	VAT					
I.Location: Ch. 0+000 to 26+150 Left Bank (From Indo Nepal Border to U/S)										
Work to be done by Contract										
1	I-N/Bagmat/L-GR-1/2009-10	0+000to 4+470	18821853.21	941092.66	2446840.917	18555752.50	19496845.16	2412247.82	Gajurmukhi Nirman Company Pvt. Ltd.	
2	I-N/Bagmat/L-GR-2/2009-10	4+770to 9+100	13086347.87	654317.39	1701225.22	12910412.20	13564729.59	1678353.58	Dukuchu-Apex -Dhulikhel J.V.	
3	I-N/Bagmat/L-GR-3/2009-10	9+100to 16+650	20076092.48	1003804.62	2609892.02	19951026.60	20954831.22	2593633.45	Bhairab-Ashraya J.V. Kathmandu	
4	I-N/Bagmat/L-GR-4/2009-10	16+650to 26+150	23341207.84	1167060.39	3034357.02	23099352.50	24266412.89	3002915.82	Gaura-Atlas-Ravi J.V. kathmandu	
		Sub Total	75325501.40	3766275.07	9792315.18	74516543.80	78282818.87	9687150.67		
II.Location: Ch. 0+000 to 4+330 R/S Bank (From Indo Nepal Border to U/S)										
Work to be done by Contract										
1	I-N/Bagmat/R-GR-5/2009-10	0+000to 4+330	10300989.11	515049.46	1339128.58	10209592.00	10724641.46	1327246.96	Himdung & Thokkar-Jaya Bhawani Nirman Sewa J.V.	
		Total-II	10300989.11	515049.46	1339128.58	10209592.00	10724641.46	1327246.96		
		Total(I+II)	85626490.51	4281324.53	11131443.77	84726135.80	89007460.33	11014397.63		

MR

Government of Nepal
Ministry of Irrigation

Department of Water Induced Disaster Prevention
Water Induced Disaster Prevention Division Office No.3

Parwanipur, Bara

Summary of Works

Proposed works of Lal Baka River Training Project for Year 2009-10

S.N.	Name of works	Package No	Estimated Amount NRs	Bid Amount NRs	Contingencies 5%	VAT 13%	Total Estimated Amount with contingencies	Total Contract Amount with contingencies	GOI Contribution	GON Contribution	Remarks
A	Contract Works										
1	Construction of Studs and Anti-Flood-Sluice	I-N/ LBK-I/R-P9/2009-10	15376792.10	15230976.2	768839.61	1980026.906	16145631.71	15999815.81	15999815.81	1980026.91	
2	Construction of Embankment and protection works	I-N/ LBK-II/R-P11/2009-10	20757096.2	20585901.74	1037854.81	2676167.226	21794951.01	21623756.55	21623756.55	2676167.23	
3	Construction of Embankment and Protection Works	I-N/ LBK-II/R-P12/2009-10	26060190.26	25945352.82	1303009.51	3372895.867	27363199.77	27248362.33	27248362.33	3372895.87	
4	Construction of Embankment and Protection Works	I-N/ LBK-II/R-P13/2009-10	23074911.7	22975852.38	1153745.59	2986860.809	24228657.29	24129597.97	24129597.97	2986860.81	
5	Construction of Embankment and Protection Works	I-N/ LBK-III/L-P14/2009-10	20861046.47	20784074.98	1043052.32	2701929.747	21904098.79	21827127.30	21827127.30	2701929.75	
6	Construction of Embankment and Protection Works	I-N/ LBK-III/L-P15/2009-10	15325787.19	15267771.92	766289.36	1984810.350	16092076.55	16034061.28	16034061.28	1984810.35	
7	Construction of Studs	I-N/ LBK-II/R-P16/2009-10	12791052.7	12621098.00	639552.64	1640742.740	13430605.34	13260650.64	13260650.64	1640742.74	
8	Construction of Studs	I-N/ LBK-II/R-P17/2009-10	27909494.63	27854393.75	1395474.73	3621071.188	29304969.36	29249868.48	29249868.48	3621071.19	
	Sub- Total		162156371.25	161265421.79	8107818.56	20964504.833	170264189.81	169373240.35	169373240.35	20964504.8	
B	Works by User's Group										
1	Construction of Studs,	I-N/ LBK-II/R-UC1/2009-10	5083017.85		254150.89		5337168.74	5337168.74	5337168.74		
2	Construction of Studs,	I-N/ LBK-II/R-UC2/2009-10	5083017.85		254150.89		5337168.74	5337168.74	5337168.74		
3	Construction of Studs,	I-N/ LBK-III/L-UC3/2009-10	4739514.51		236975.73		4976490.24	4976490.24	4976490.24		
4	Construction of Studs,	I-N/ LBK-III/L-UC4/2009-10	4739514.51		236975.73		4976490.24	4976490.24	4976490.24		
5	Construction of Studs,	I-N/ LBK-II/R-UC5/2009-10	2224505.44		111225.27		2335730.71	2335730.71	2335730.71		
	Sub- Total		21869570.16		1093478.51		22963048.67	22963048.67	22963048.67		
	Grand Total		184025941.41		9201297.07		193227238.48	192336289.02	192336289.02	20964504.8	

hr

Kamala Embankment Project **Proposed Works For 2009-10 (2066-067 B.S.)**

Phase I

S.N.	Chainage Village	Proposed Protection works		Contract No./Name of Contractor	Estimated Cost NRs.			Total Contract Amount	GOI			GON
		Type	Quantity		GOI with Conti.	GON (13% VAT)	Total		Cont. Amount (exclu. Vat)	Contingencies	Total	
Left Bank												
1	0+000 to 3+250	Embankment	3.25 km	I-N/Kamala/LB 16/2009-10 / Kankai International	21,126,958.68	2,615,718.69	23,742,677.37	11,902,978.17	10,533,609.00	1,006,045.65	11,539,654.65	
		A.F.S.	1 No.									1369369.17
2	5+050 to 8+000	Embankment	2.95 km	I-N/Kamala/LB	26,439,127.48	3,273,415.78	29,712,543.26	15,559,313.52	13,769,304.00	1,259,006.07	15,028,310.07	1,790,009.52
		Stud	4 No.	17/2009-10 /Amar								
Total Left Bank					47,566,086.16	5,889,134.47	53,455,220.63	27,462,291.69	24,302,913.00	2,265,051.72	26,567,964.72	3,169,378.69
Right Bank												
3	0+000 to 2+100	Embankment	2.1 km	I-N/Kamala/RB	26,691,780.72	3,304,696.66	29,996,477.38	28,430,894.92	25,160,084.00	1,271,037.18	26,431,121.18	3,270,810.92
		Revetment	219 m	20/2009-10 / Jayee								
		A.F.S.	1 No.	Construction								
4	15+650 to 16+100	Embankment	0.45 km	I-N/Kamala/RB	26,674,464.22	3,302,552.71	29,977,016.93	28,698,994.20	25,397,340.00	1,270,212.58	26,667,552.58	3,301,654.20
		Revetment	516 m	25/2009-10 /								
		A.F.S.	1 No.	Shankarmali - U.K.N.								
5	16+616 to 17+330	Revetment	714 m	I-N/Kamala/RB	26,688,111.04	3,304,242.32	29,992,353.36	28,702,246.34	25,400,218.00	1,270,862.43	26,671,080.43	3,302,028.34
				26/2009-10 / Raman								
				Construction								
6	17+330 to 18+044	Revetment	714 m	I-N/Kamala/RB	26,688,111.04	3,304,242.32	29,992,353.36	28,695,790.66	25,394,505.00	1,270,862.43	26,665,367.43	3,301,285.66
				27/2009-10 / Sapna -								
				Kamal JV								
7	18+044 to 18+750	Revetment	706 m	I-N/Kamala/RB	26,390,261.06	3,267,365.65	29,657,626.71	28,335,991.88	25,076,099.00	1,256,679.10	26,332,778.10	3,259,892.88
				28/2009-10 / Y.P. /								
				Dev & Sayar /								
				Pushpanjali JV								
Total Right Bank					133,132,728.08	16,483,099.66	149,615,827.74	142,863,918.00	126,428,246.00	6,339,653.72	132,767,899.72	16,435,672.00
Contract Total :					180,698,814.24	22,372,234.13	203,071,048.37	170,326,209.69	150,731,159.00	8,604,705.44	159,335,864.44	19,595,050.69
User's Group												
Left Bank												
8 a)	3+250 to 3+850	Embankment	0.6 km		3477891.90		9,290,764.98	8,848,347.60	3,312,278.00	165,613.90	9,290,764.98	
b)	3+850 to 4+550	Embankment	0.7 km		3365777.94				3,205,502.80	160,275.14		
c)	4+550 to 4+550	Embankment	0.5 km		2447095.14				2,330,566.80	116,528.34		
9	Paterwa	Channelization	2.2 km		2,491,958.70		2,491,958.70	2,373,294.00	2,373,294.00	118,664.70	2,491,958.70	
10	Paterwa	Bamboo Screening	1.0 km		1,552,237.36		1,552,237.36	1,478,321.30	1,478,321.30	73,916.06	1,552,237.36	
Right Bank												
11	Hahmunda	Channelization	2.5 km		2,831,771.25		2,831,771.25	2,696,925.00	2,696,925.00	134,846.25	2,831,771.25	
12	Hahmunda	Counter berm	1.0 km		1,477,299.23		1,477,299.23	1,406,951.65	1,406,951.65	70,347.58	1,477,299.23	
Total User's Group					17,644,031.52	-	17,644,031.52	16,803,839.55	16,803,839.55	840,191.97	17,644,031.52	
Total :					198,342,845.76	22,372,234.13	220,715,079.89	187,130,049.24	167,534,998.55	9,444,897.41	176,979,895.96	19,595,050.69

Handwritten signature

Kamala Embankment Project
Proposed Works For 2009-10 (2066-067 B.S.)
Phase II

S.N.	Chainage	Proposed Protection works		Contract No./Name of Contractor	Estimated Cost NRs.			Total Contract Amount	GOI			GON	
		Type	Quantity		GOI with Conti.	GON (13% VAT)	Total		Cont. Amount (exclu. Vat)	Contingencies	Total		Vat (13 %)
Left Bank	1	8+000 to 10+550	Embankment	2.55 km	I-N/Kamala/LB 18/2009-10 / Amar Mirit Sanjivini JV	26,355,672.16	3,263,083.22	29,618,755.38	12,864,665.80	11,384,660.00	1,255,032.01	12,639,692.01	1,480,005.80
						26,355,672.16	3,263,083.22	29,618,755.38	12,864,665.80	11,384,660.00	1,255,032.01	12,639,692.01	1,480,005.80
Right bank	2	6+900 to 10+200	Embankment	3.3 km	I-N/Kamala/RB 21/2009-10 / Y.P./ Dev & Sayar JV	26,462,238.81	3,276,277.19	29,738,516.00	28,371,294.20	25,107,340.00	1,260,106.61	26,367,446.61	3,263,954.20
						26,392,472.42	3,267,639.44	29,660,111.86	28,357,282.20	25,094,940.00	1,256,784.40	26,351,724.40	3,262,342.20
4	13+600 to 14+800	Embankment A.F.S.	3.4 km 1 No.	I-N/Kamala/RB 22/2009-10 / Diwa Nirman Sewa	29,220,777.05	3,617,810.49	32,838,587.54	30,985,003.97	27,420,357.50	1,391,465.57	28,811,823.07	3,564,646.47	
5	14+800 to 15+650	Embankment Revetment A.F.S.	0.85 km 501 m 1 No.	I-N/Kamala/RB 24/2009-10 / Swachchhanda-Roshan JV	29,411,432.15	3,641,415.41	33,052,847.56	31,296,092.41	27,695,657.00	1,400,544.38	29,096,201.38	3,600,435.41	
Total Right Bank						111,486,920.43	13,803,142.53	125,290,062.96	119,009,672.78	105,318,294.50	5,308,900.96	110,627,195.46	13,691,378.28
Contract Total :						137,842,592.59	17,066,225.75	154,908,818.34	131,874,338.58	116,702,954.50	6,563,932.97	123,266,887.47	15,171,384.08
User's Group	Left Bank					-	-	-	-	-	-	-	-
		Right Bank				-	-	-	-	-	-	-	-
Total User's Group						-	-	-	-	-	-	-	-
Total :						137,842,592.59	17,066,225.75	154,908,818.34	131,874,338.58	116,702,954.50	6,563,932.97	123,266,887.47	15,171,384.08

12