MINUTES OF THE SIXTH MEETING OF NEPAL-INDIA JOINT COMMITTEE ON INUNDATION AND FLOOD MANAGEMENT [JCIFM]

(January 16-21, 2012)

The sixth meeting of Nepal-India Joint Committee on Inundation and Flood Management (JCIFM) was held during January 16-21, 2012. The Indian delegation was led by Mr. S. Masood Husain, Member (Coordination), Ganga Flood Control Commission (GFCC), Government of India and the Nepalese delegation was led by Mr. K. P. Regmi, Director General of the Department of Water Induced Disaster Prevention (DWIDP), Government of Nepal. The Team Leader of the Nepalese delegation welcomed the Indian delegation at Kamala river embankment site.

The meeting of the Committee at Kathmandu was preceded by joint field visits to the completed, ongoing and proposed embankments and flood protection works along the Kamala, Bagmati and Lalbakeya rivers. The list of participants of the meeting is at *Annex-I*.

EXTENSION OF EMBANKMENTS

A) FIELD VISIT OF ONGOING WORKS

A-I Kamala River

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The Committee carried out the field visit of the Kamala river on January 17, 2012. The Committee visited the right bank starting from Ch. 0.00 km to 5.50 km from the Nepal-India border and then proceeded to the left bank from the border to the point where the embankment meets the highland (East-West Highway). The Committee concluded the site visit to Kamala by visiting the right bank at the point where the embankment is to meet the highland on that side.

The Committee inspected the completed/ ongoing works and the proposed work locations. The recently carried out emergent works during the 2011 floods were also inspected. The main channel flow of the river was seen to be flowing along the right embankment from Ch. 5.50 km to around Ch. 2.5 km. During the fifth meeting the Committee had desired to direct the main flow of the river at this location by the appropriate use of porcupines. The details of work done and utilization certificates for this work may be submitted to GFCC for payment. The Committee desired that efforts should be made to channelize the main channel of the river away from the right bank. In this regard detail drawing of the area indicating the bank lines, layout and design of the pilot channel, location of concrete porcupines, layout of the scheme and details of cost estimate should be prepared and submitted to GFCC for vetting/clearance, after which its implementation at site may be initiated.

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The Committee observed that the embankment was about to reach the end point near the Nepal-India border and that proper arrangements have to be made by the Government of Bihar to tie embankment on the Nepalese side with the embankment on the Indian side after ensuring the stability of structures on the river.

Besides this, the Committee gave general instructions regarding the embankment works on both banks. First, some ongoing works have taken more time beyond the scheduled target for completion. These works should be completed as soon as possible. Second, the side slopes at many locations of embankment works were not found to be as per the design specification. These should be checked and brought to design slope before finalizing the works of the concerned contractors. Third, excavation of river bed material for embankment construction should be done from at least 50 meters away from the toe of the proposed embankment. Any such excavation sites closer than this should be filled up to prevent secondary channel formation and all studs/ spurs should be properly tagged to the embankment.

A-II Bagmati River

The field visit to Bagmati took place on January 18, 2012. The Committee inspected the completed/ ongoing works and proposed work locations. The Committee also inspected locations of emergent works carried out during 2011 floods. The main channel was seen to be flowing close to the right bank embankment at a number of places. The Committee suggested the appropriate use of concrete porcupines in the future to induce siltation at such locations, thereby shifting the flow of river away from the embankment. The Committee gave general instructions to complete ongoing works at the earliest. It also directed to carry out regular maintenance of embankments where rain cuts have damaged the embankment. Further, the Committee expressed concern over the encroachment by the local public on the embankment and suggested that immediate steps may be taken to discourage such activity.

A-III Lalbakeya River

The field visit to Lalbakeya embankment works took place on January 18, 2012. The Committee visited the works ongoing at Ch. 23.000 km of the right bank, proceeded downstream, crossed over to the other side and visited the left side embankment. It was observed that severe erosion had taken place during 2011 monsoon flood on left side embankment at



Debahi, Ch. 13.500 km resulting in the damage of about 600 m. length of existing embankment. The Committee suggested that the embankment at this location may be shifted back toward the country side. Concrete porcupines maybe used appropriately at channel diversion location. The Committee inspected the ongoing works up to the end of embankment and observed that these works were satisfactory. Emergent works carried out during 2011 floods were also inspected. The Committee instructed that ongoing works should be completed as per schedule.

DECISIONS OF THE JOINT COMMITTEE ON INUNDATION & FLOOD MANAGEMENT (JCIFM)

B) ONGOING WORKS AND RELEASE OF FUNDS

B-I For Bagmati river

Ongoing Works

The emergent anti erosion works approved for implementation by the fourth meeting were observed to be nearing completion. As per the Committee's recommendation, the initial 50% of Gol contribution of these works amounting to NRs. 3.483 crore was released. As the utilization certificates of these works have already been submitted to GFCC, Patna for processing, the balance 50% amounting to NRs. 3.483 crore is recommended for release.

The Committee inspected emergent works carried out on Bagmati river during the floods of 2011. Since the utilization certificates have already been submitted to GFCC, NRs. 0.680 crore is recommended for reimbursement. As the proposal for the protection works on Jhanj river has been revised based on the observations of GFCC. The Committee decided that the tenders for Jhanj river put on hold as per the decision of the fourth meeting, should be cancelled and the concerned contractors be released from all obligations. It was further decided that the work packages would be reformulated and submitted to GFCC. After approval of these work packages by GFCC, tenders may be floated for the same. The awarding of contracts will follow usual procedure as in other previous works.

B-II Work along the Lalbakeya river

Ongoing Works

The emergent anti erosion works approved for implementation by the fourth meeting were observed to be nearing completion. As per the



Committee's recommendation, the initial 50% of the Gol contribution of these works amounting to NRs. 2.919 crore was released. As the utilization certificates of these works have already been submitted to GFCC, Patna for processing, the balance 50% amounting to NRs. 2.919 crore is recommended for release.

The Committee inspected the emergent works carried out on Lalbakeya river during the floods of 2011. Since the utilization certificates have already been submitted to GFCC, NRs. 1.0559 crore is recommended for reimbursement.

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

Ongoing Works

The emergent anti erosion works approved for implementation during the fourth meeting of JCIFM were observed to be nearing completion. As per the Committee's recommendation, the initial 50% of the GoI contribution of these works amounting to NRs. 0.584 crore was released. As the utilization certificates of these works have already been submitted to GFCC, Patna for processing, it is recommended that the balance 50% amounting to NRs. 0.584 crore may be released.

The Committee inspected the emergent works carried out on Kamala river during the floods of 2011. Since the utilization certificates have already been submitted to GFCC, NRs. 1.0491 crore is recommended for reimbursement.

B-IV New Works

During the fifth meeting of JCIFM, the Committee had directed that detailed project reports (DPRs) of Bagmati, and Lalbakeya rivers be revised and that of Kamala river be updated clearly indicating the remaining works, works completed and action plan for completion of the remaining works. It was decided that based on these reports, the action plan of works to be taken up in 2012 would be decided, after which tenders may be floated for the same by the competent authority of the Government of Nepal.

Accordingly, the updated DPRs of Kamala, Bagmati, Lalbakeya were submitted to Indian side in August 2011 by Nepalese side. Indian side examined and gave its observation on the DPRs in November 2011. The reply from Govt. of Nepal on the observation of Indian side on the DPRs

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has been received in January 2012 and same is under examination in GFCC.

Accordingly, the concerned Division Offices of DWIDP prepared contract work packages and tenders were floated. Such work packages are 18 in Kamala, 10 in Bagmati and 17 in Lalbakeya rivers. The Nepalese side informed that presently the lowest bidders in all the work packages have been identified. However, checking the responsiveness of the contactors was still taking place. The final details of contracts for the different work packages would be ready in about ten days time and forwarded to GFCC for approval of the contracts.

The Indian side stated that the anti erosion works for which the tenders have been floated may not be necessary as was observed during the site visit. The Committee decided that the tendered work packages are to be divided into two categories. The first category i.e. Category 'A' of work packages will include those which do not comprise unnecessary anti erosion works. The final details of contracts for such works will be submitted to GFCC for vetting. After approval by GFCC, such tenders shall be approved and 50% of the Gol contribution shall be released as the initial installment. The balance 50% shall be released after receiving of utilization certificates of 75% amount of initial contribution of Gol.

The second category of work packages i.e. Category 'B' include those anti erosion measures and other provisions for which supporting justification has not been provided. The justification of anti erosion works, their design, layout maps and any other details deemed necessary will be submitted to GFCC. These will be examined by GFCC after which decision will be taken in this regard. For work packages approved in totality 50% of the Gol contribution shall be released as the initial installment. The balance 50% shall be released after receiving of utilization certificates of 75% amount of initial contribution of Gol.

The list of work packages for the two Categories A & B has been given in ANNEX-II A, B & C.

The utilisation certificate for the ongoing and completed work for which the last instalment has been received would be submitted to GFCC before the release of funds for the new works. The utilisation certificate will include the details regarding the expenditure towards contingencies.

The Committee observed that with the approval of the above two category of work packages mentioned above and its implementation, the part relating to embankment construction as per the revised/updated DPRs of Kamala, Bagmati and Lalbakeya rivers will stand completed.



The details of completed embankment on these rivers are given in Annex-III.

B-V Detailed Project Report for extension of Embankment along Khando River

During the second meeting of JCIFM it was decided that the Nepalese side would compare the present cross sections with previous cross sections in the report and findings would be provided to GFCC. Accordingly the Nepalese side handed over the details of differences of bed levels to the Indian side. A revised DPR for Khando river embankment works was also submitted to the Committee. The Nepalese side requested that the DPR may be examined on priority. The Indian side stated that the views of the Government of Bihar were still awaited on the DPR and that views of the Indian side will be conveyed to the Nepalese side after receiving the comments from Govt. of Bihar.

B-VI Detailed Project Report for extension of Embankment along Bhutahi Balan River

The Nepalese side stated that JSTC during its 2nd meeting had directed JCIFM to discuss this issue. The Nepalese side had made a presentation to the Committee on the issue during the fifth meeting and submitted the DPR for appraisal. The Indian side stated that there was confusion regarding the exact river for which the DPR was prepared. The DPR indicates that embankment proposal is for Balan river, a tributary of Kamala river. However the JSTC direction was about the extension of embankment on Bulahi Balan river, which is a tributary of Kosi river. It was decided that the said river would be jointly verified by the concerned Contact Officers and report about the findings to their Team Leaders by April end, 2012.

B-VII Detailed Project Report for extension of Embankment along right bank of West Rapti River

During the third meeting of JSTC, it was stated that the DPR for embankment along the right bank of West Rapti river had been found to be in order. However, the alignment was to be jointly finalised before 15 November, 2011. Accordingly, the visit took place in November 2011 and the alignment was finalised. The DPR has been revised after incorporating the revised alignment and certain modifications suggested by the Indian side. The revised DPR submitted to GFCC will be examined. The DPR for the extension of embankment along the bank of West Rapti river n Indian portion from Indo-Nepal border to Kalkalwa



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embankment has also been submitted by Government of Uttar Pradesh to GFCC. The Committee decided that the matter will be reported to JSTC after examination in GFCC. Further the Joint Team also inspected the open culvert at Kalkalwa bund in November 2011. The passage of the drain upstream of the opening of Kalkalwa bund was found to be blocked. The Committee directed that the temporary earth fill blocking the recently constructed culvert on Kalkalwa bund may be removed.

B-VIII Recovery of mobilization advance given to contractors for the works of C & D packages of Bagmati river embankment

The Indian side stated that the issue of amounts given as mobilization advance to contractors for the works of earlier C & D packages of Bagmati river embankment be settled. The Nepalese side stated that they would come up with the details in the next meeting of JCIFM.

B-IX Continuation of works of embankment along Gagan river

The Committee was informed that the works of embankment along Gagan river could not progress due to local problems. The Indian side suggested that efforts should be made for timely completion of the works. The Nepalese side stated that they will do the needful and come up with the details in the next meeting of JCIFM.

B-X Placement of board at various locations near villages

The Committee directed that boards displaying that the embankments constructed under Indo-Nepal Cooperation along with the name of villages should be displayed at various locations.

C) FLOOD INUNDATION ISSUES

C-I Mahali Sagar

The Committee noted that the joint survey, as directed by JCIFM during its 3rd meeting, could not be undertaken to fix the contour level of 92.76 m in order to assess the reservoir area both in Nepal and India at pond level of 92.76 m. During the fifth meeting, the Committee had directed the Contact Officers to complete the work by 31 December, 2011. However, this was not possible due to the busy schedule of both the Contact Officers. Hence, the Committee decided that the said verification should be completed by April end, 2012 and the findings reported to the respective Team Leaders.





C-II Bairganiya Ring Bund

The Nepalese side informed the Committee that the construction of embankment on the right bank of Bhakuwa Nala and sluice on the right bank of Lalbakeya river near Nepal-India border is being carried out and is likely to be completed before the monsoon of 2012. The Committee decided to review this issue after the completion of the above stated works as indicated in the third meeting of JCIFM.

C-III Rato River

The Committee noted that the joint study of the inundation situation in the area, as directed by JCIFM during its 3rd meeting, could not be undertaken by the Contact Officers. The Committee during the fifth meeting had directed the Contact Officers to complete the work by 31 December, 2011. However, the same has not been done due to the busy schedule of the Contact Officers. The Committee therefore again directed the Contact Officers to complete the work by April end, 2012.

C-IV Geruwa River

With appreciation from both sides, it was observed that the issue had been resolved. It was therefore decided the issue be dropped from further discussions

C-V Lakhandehi River

The Indian side inquired about the recent avulsion tendency in Lakhandehi river and the possibility of damage on the Indian and Nepalese side. The Nepalese side informed that embankment works have been initiated starting from near the East-West Highway under the Peoples' Embankment Program on the Lakhandehi river. It was decided to provide the DPR of the river to the Indian side for purpose of reference.

C-VI Embankment on Mechi River

The Committee noted with satisfaction that the concerned Contact Officers were carrying out the joint survey on Mechi river and survey in a length of 16 km out of the 50 km reach had been completed. It was stated that it may not be possible to complete all the assigned joint survey works by the end of January, 2012 and that one more month may be required. The Committee decided that the joint survey works may be complete by February 2012.



D-I Flood Forecasting Master Plan

It was informed that the draft report on Flood Forecasting Activities on Rivers Common to India and Nepal had been prepared by the concerned Task Force in Lucknow, India during December 6-12, 2011. Since there was no comment on the draft report, the Committee decided to forward the draft report to JSTC.

E) COMPREHENSIVE STRATEGY FOR FLOOD MANAGEMENT

E- I Preparation of prioritized list of flood management works

The Nepalese side informed that a list of trans-boundary rivers had been provided to the Indian side in the fourth meeting based on the study carried out by the Joint Committee for Comprehensive Strategy for Flood Management and Control. It also referred to the decision taken in the sixth meeting of JCWR to prepare a detailed project report on priority basis for these rivers. Further, the Nepalese side stated that a list of 16 priority rivers had been handed over to the Indian side during the visit of Honorable Prime Minister of Nepal. Both the lists were provided to the Indian side. The Indian side stated that these lists of rivers will be provided to the Governments of UP and Bihar and further discussion on this would be initiated after receiving their views on the issue.

It was decided to hold the next meeting of JCIFM in the second week of June, 2012.

The meeting was held in a cordial and friendly atmosphere.

Signed on January 21, 2012 at Kathmandu.

(K. P. Regmi)

Team Leader/ Director General

Dept. of Water Induced Disaster Prevention (DWIDP)

(S. Masood Husain)

Team Leader/Member

Ganga Flood Control Commission

(GFCC), Patna

6th Meeting of the JCIFM held from January 16-21, 2012 <u>LIST OF PARTICIPANTS</u>

INDIAN SIDE:

 Mr. S. Masood Husain Member (Co-ordination), GFCC, Patna

Team Leader

2. Mr. Kashindra Yadav Chief Engineer, CWC, Patna

Member

3. Mr. Sanjiv Ranjan Director (North), MEA, New Delhi

Member

Mr. A.S.P. Sinha
 Sr. Joint Commissioner (Ganga),
 MOWR, New Delhi

Member

Mrs. Anju Ranjan
 First Secretary,
 Embassy of India (EOI), Kathmandu

Member

6. Mr. A. K. Ojha Chief Engineer, (Irrigation), Govt. of UP

Member

7. Mr. N.C. Chatterjee Chairman, NBFCC, Govt. of West Bengal

Member

8. Mr. Dinesh Prasad Executive Engineer, (WRD) Govt. of Bihar, Patna

Member

9. Mr. V. B. Sharma
AO (Finance), IFD,
Ministry of External Affairs

Auxi Thurham

Member

10. Mr. S.K. Gangwar Director, GFCC, Patna

Member Secretary

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NEPALESE SIDE:

1. Mr. Kamal Prasad Regmi Director General/DWIDP Team Leader Mr. Gauri Shankar Bashi 2. Deputy Director General/DWIDP Member Secretary 3. Mr. Sanjaya Dhungel Senior Divisional Engineer, WECS Member 4. Mr. Rabinath Babu Shrestha Senior Divisional Engineer, Dept. of Irrigation Member 5. Mr. Sashi Bahadur Bisht Senior Divisional Engineer, DWIDP Member 6. Mr. Ananta Kumar Gajurel Senior Divisional Engineer, RTP/DWIDP Member 7. Mr. Rishi R. Ghimire Under Secretary, Ministry of Foreign Affair Member 8. Mr. Pravin Raj Maskey Senior Divisional Engineer, Ministry of Irrigation -Member 9. N. P. Regmi Ministry of Finance Member 10. Suresh Maskey Hydrologist, DHM

SPECIAL INVITEES

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- 1. Mr. Manohar Rijal, Division Chief, WIDPO, D.No. 1, Biratnagar
- 2. Mr. Sita Ram Yadav, Division Chief, WIDPO, D.No. 2, Dhanusha
- 3. Mr. M.N. Sharma, Acting Division Chief, WIDPO, D.No.3, Bara
- 4. Mr. S.C. Acharya, Division Chief, WIDPO, D.No.5, Rupandehi
- 5. Mr. B.N. Yadav, Division Chief, WIDPO, D.No.6, Banke

FACILITATOR

Mr. Rajesh Kumar Paudel, Engineer, RTP/DWIDP

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Member

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Water Induced Disaster Prevention Division Office No 2, Janakpur, Dhanusha

Summary Of Contracts

	5.N.	River Name	Name of Work	Contract No.	Estimated Amount NRS , (Without VAT and Contingencies	No. of Bids	Lowest Bid Amo NRs
		Kamala	River Training Project	ct			
	, 2	Categor	y-A		***************************************		
	1	Kamala-R	Construction of studs-6.0 nos.	I-N Kamala/RB-55/ 068-69	36,014,498.01	15	20,157,9
	2	Kamala-R	Gravelling on the top of Embankment as Service Road 9.00 km	I-N Kamala/RB-57/ 068-69	38,575,808.98	15	31,106,0
	3	Kamala-R	Gravelling on the top of Embankment as Service Road 8.93 km	I-N Kamala/RB-58/ 068-69	38,289,456.77	14	22,560,1
	4	Kamala-R	Construction of Embankment 0.	I-N Kamala/RB-60/ 068-69	40,622,969.88	16	18,299,2
	5	Kamala-R	Construction of Embankment 0.	I-N Kamala/RB-61/ 068-69	39,808,518.88	20	21,399,4
	6	Kamala-L	Gravelling on the top of Embankment as Service Road 8.00 km	I-N Kamala/LB-63/ 068-69	25,654,178.60	22	11,124,0
	7	Kamala-L	Gravelling on the top of Embankment as Service Road 9.350 km	I-N Kamala/LB-64/ 068-69	29,924,103.22	15	13,404,6
	8 ~	Kamala-L	Construction of Embankment 1.450 km and Studs 4 No.	I-N Kamala/LB-67/ 068-69	34,533,913.42	14	19,024,0
			Sub Total		283,423,447.76		157,075,49
		Categor	y-B				
	1	Kamala-R	Construction of A.F.S. I No. and Revetment 0.459 Km	I-N Kamala/RB-53/ 068-69	29,374,373.92	15	19,046,7
ا - بد	2	Kamala-R	Construction of Studs 5 No.	I-N Kamala/RB-54/ 068-69	29,877,632.35	15	17,157,0
	3		Construction of Revetment 0.150 km and Studs 4 No & A.F.S.1no.	I-N Kamala/RB-56/ 068-69	38,293,358.89	14	26,486,8
	4	. Kamala-R	Construction of A.F.S. 1 No. and Studs 5 No.	I-N Kamala/RB-59/ 068-69	29,805,678.51	14	18,991,8
	5	Kamala-R	Construction of Studs 6 No. and Revetment 0.300 km	I-N Kamala/RB-62/ 068-69	40,131,531.72	19	22,205,6
	6,	Kamala-L	Construction of Embankment 0.950 km and Revetment 0.060 Km & A.F.S.3 nos.	I-N Kamala/LB-65/ 068-69	34,964,534.44	11	21,363,68
	7	Kamala-i i	Construction of Embankment 0.300 km and Studs 3 No.	I-N Kamala/LB-66/ 068-69	19,881,038.81	14	10,529,30
	8	Kamala-L	Construction of Embankment 0.850 km. Stud Ino.&A.F.S.2 nos.	I-N Kamala/LB-68/ 068-69	24,814,442.30	17	13,715,90
	9	Kamala-L		I-N Kamala/LB-69/ 068-69	27,958,734.32	15	16,855,52
	10	Kamala-L	Construction of Revetment 0.501 km and Studs 4 No.	I-N Kamala/LB-70/ 068-69	35,735,589.71	18	18,324,68
			Sub Total =		310,836,914.97		184,677,200

Water Induced Disaster Prevention Division Office No 3, Parwanipur, Bara

Summary Of Contracts

S.N.	River Name	Name of Work	Contract No.	Estimated Amount NRS, (Without VAT	No. of Bids	Lowest Bid Ai
	BAGMA	ATI River Trainin	g Project	and Contingencies		IVAS
	Category-A					
1	Bagmati-	IC.	I-N/Bagmati/L-EMB/P-38/2011-12	11 242 400 00		
2	Bagmati-F	Strengthening of Embankment	I-N/Bagmati/R-EMB/P-39/2011-12	11,342,480.92		3,950,
3	Bagmati-F	Community	I-N/Bagmati/R-EMB/P-40/2011-12	26,862,523.04	11	11,722,
4 、	Bagmati-R	C4	I-N/Bagmati/R-EMB/P-41/2011-12	22,863,549.79	16	7,869,
5	Bagmati-R	Strengthening of	I-N/Bagmati/R-EMB/P-42/2011-12	21,398,179.81	15	9,155,8
		Embankment Sub Total	13/2011-12	21,120,434.89	14	9,038,7
	Category	<i>∨-B</i>		103,587,168.45		41,736,67
1	Bagmati-L	Construction of Studs and Antiflood Sluice	I-N/Bagmati/L-STD-AFS/P-36/2011- 12	26,661,142.98	11	14,488,8
2	Bagmati-L	Construction of Studs	I-N/Bagmati/L-STD/P-37/2011-12	22,707,590.21	11	
3	Bagmati-R	Construction and Maintenance of Studs	I-N/Bagmati/R-STD/P-43/2011-12		11	9,646,95
		Construction of Stud	I-N/Bagmati/R-STD/P-44/2011-12	23,661,659.94	7	14,339,26
		Construction and	I-N/Bagmati/R-STD/P-45/2011-12	31,204,618.43	7	19,608,51
5		Maintenance of Studs		30,327,889.48	10	17,022,28
-		Sub Total				



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Water Induced Disaster Prevention Division Office No 3,

Parwanipur, Bara

	Lal Dalar		Summary Of Co	ntracts		
		a River Training	Project			
S.N.	Category-/	Name of Work	Contract No.	Estimated Amount NRS , (Without VAT and Contingencies	No. of Bids	Lowest Bid Amour
1	LalBakaiya-R	Construction of Embankment (3 km) & AFS 2 nos		23,310,197.68	11	9,137,800
2	LalBakaiya-R	Construction of Embankment (3 km)		22,837,013.33	18	10,792,097
3	LalBakaiya-R	Construction of Embankment (2.2 km) & Reverment 200 m	IN/LBK-II/R-EMB/P-51/2011-12	29,279,349.85	13	14,467,699
<u> </u>	LalBakaiya-R	Gravelling on Embankment (7.1km)	IN/LBK-II/R-GRV 2/2011-12	15,318,635.16	12	4,513,850.
5	LalBakaiya-R	Gravelling on Embankment (13.50 km)	IN/LBK-II/R-GRV 3/2011-12	26,646,585.57	15	10,642,500.
6	LalBakaiya-L	(8 nos) & AFS 1 no	IN/LBK-II/L-EMB/P-54/2011-12	25,342,630.05	8	16,862,406
7	LalBakaiya-L	Construction of Embankment (1.81 km), Stud (5 nos) & AFS 1 nos	IN/LBK-II/L-EMB/P-55/2011-12	25,574,342.02	11	14,061,002.
8	LalBakaiya-L	Construction of Embankment (3.15 km), Stud (4 nos) & AFS 1 nos	IN/LBK-II/L-EMB/P-56/2011-12	25,986,837.24	12	12,203,929.
9	LalBakaiya-L	Construction of Embankment (3.15 km) & AFS 1 nos	IN/LBK-II/L-EMB/P-57/2011-12	35,293,844.38	14	16,072,799
1 0	LalBakaiya-L	Embankment (7.1km)	IN/LBK-II/L-GRV 4/2011-12	14,516,611.72	14	4,513 850 (
11	LalBakaiya-L	Embankment (11.00 km)	IN/LBK-II/L-GRV 5/2011-12	20,377,761.25	13	6,828,500.0
	Category-B	Sub Total		265,483,808.25		120,096,435.3
I		Construction of Stud I (7 nos) & AFS I no	N/LBK-II/R-EMB/P-46/2011-12	25,808,366.33	3	16,076,487.0
2	LalBakaiya-R	Construction of Stud I (7 nos) & AFS 3 no	N/LBK-II/R-EMB/P-47/2011-12	28,499,217.86	7	19,849,996.2
3	LalBakaiya-R	Construction of Stud I (6 nos)	N/LBK-II/R-EMB/P-48/2011-12	18,324,399.56	9	11,526,639.9
4		Construction of Stud I (6 nos) & AFS 1 no	N/LBK-II/L-EMB/P-52/2011-12	21360318.73	5	14,068,038.0
5	Edibakaiya-L		N/LBK-II/L-EMB/P-53/2011-12	21360318.73	6	13,190,277.2
6	LalBakaiya-L	Construction of Stud [N/LBK-II/L-EMB/P-58/2011-12	25951825.07	13	15,420,964 7
		Sub Total		141,304,446.28	A o	() 90,132,403.13

Details of Completed Embankment on Kamala, Bagmati and Lal Bakeya River

1. Kamla River

A. Left Banl	,			
		B. Right Bank		
Chainage (km)	Completed length (km)	Chainage (km)	Completed	
0+300 - 10+350		0+400 - 5+000	length (km)	
11+500 - 13+500		5+150 - 6+600	4	
14+400 - 15+450		6+700 - 22+530	15	
20+250 - 29+000		22+600 - 24+000	1	
31+000 - 34+300	3.30	24+880 - 25+880	1	
		32+000 - 33+600	1.	
Total	25.60	Total	25.	

2. Bagmati River

A Left Devi				
A. Left Bani		B. Right Bank		
Chainage (km)	Completed length (km)	Chainage (km)	Completed length (km)	
I-N Boarder to Ch.31+250	31.25	I-N Boarder to Ch.36+136	36.13	
42+500 - 49+000	6.50		30.10	
Total	37.75	Total	36.13	

3. Lal Bakeya River

A. Left Ban	nk			
7. Left Bai		B. Right Bank		
Chainage (km)	Completed length (km)	Chainage (km)	Completed length (km)	
I-N Boarder to Fatuwa		I-N Boarder to Fatuwa	ienga (kin)	
Bridge	8.50	Bridge	8.3	
Fatuwa Bridge to		Fatuwa Bridge to	U	
Ch.11+500		Ch.11+500	11.5	
21+000 - 22+950	1.95			
24+760 - 27+400	2.64	<u> </u>		
Total	24.59	Total	19.8	



