

## PHYSICAL VERIFICATION REPORT

(Conducted by Dy. Director, Planning on 27-06-2011)

1. Name of Project : Flood Protection Works along left bank of river Chenab to save villages and road leading to Dera Baba Banda in Reasi.
2. Funding Agency : GoI & State Plan
3. Executing Agency : I&FC Division Mahore, Dharmari.
4. Year of Sanction : 2007-08
5. Year of Start : 2008-09
6. Year of Completion : 2009-10
7. Need/ Importance of the Project:

The take-off point of the road leading to the famous Gurudwara at Dera Baba Bandha, Reasi is 6 kms ahead of Reasi town towards the left on the Katra – Reasi state highway. Although the road is single lane, it provides connectivity to a number of villages and a certain stretch of the road runs along the left bank of river Chenab. This stretch of road is vulnerable as Chenab strikes on the left bank fiercely. Moreover, the villages Mansu, Chumbia, Babber Brahmina on the left bank of Chenab have witnessed erosion along the banks causing damage to their fields, especially during floods.

This particular location demanded immediate attention of the authorities in the Irrigation and Flood Control Department. Accordingly, a comprehensive project proposing execution of emergent anti-erosion works at this location as well as similar other sections on banks of Chenab that were being eroded by the river was submitted to GoI and approval obtained under AIBP (Flood Management).

Following were the main objectives of the project

Area desired to be saved from erosion	: 10 hectares
Number of houses/ government buildings & religious places to be saved	: 6 numbers
Population benefitted	: 1800 souls
Area to be re-claimed	: 4 hectares

## 8. Financial Status of Work:

(Rs. in Lacs)

Approved Cost	308.65 (277.79 Central Share+30.86 State Share)
Funds Released	155.11 (124.25 Central Share+30.86 State Share)
Expenditure incurred till June 2011	155.11
% Funds Released/ Expenditure Incurred	50%
Balance funds required	153.54

## 9. Physical Status of Work:

S.No	Name of Work	Target	Achievement	% Achievement
1	Length of Embankment	550 meters	410 meters	75%
2	Length of Revetment	550 meters	550 meters	100%
3	Number of Studs	10 numbers	9 numbers	90%
4	Number of Deflectors, 90m long	1 number	1 number	100%

The major objectives of the project mentioned in the previous page have already been achieved by executing most of the approved works. However, there is need to ensure that maintenance works are carried out on a regular basis to have prolonged impact over the years.

## 10. Field Observations:

The anti-erosion works have been executed at three different locations on left bank of river Chenab and two of these locations which were approachable without much difficulty and where most of the work was executed were inspected. The details of works executed are given below: -

Location 1: This location was inspected. The revetment and embankment developed at this location were shaped like a curve along the left bank with four studs protruding towards the river at about equal distances.

- (i) Revetment: It had a 510 meter long revetment made of crate mesh with boulders filled in it. The Executive Engineer concerned informed that the revetment comprised of three steps each having a width of 1.5 meters which were erected one over the other. However, only one step of the revetment was visible as the other two had submerged beneath the water. The quality of work on the revetment which was evident seemed good.
- (ii) Embankment: Above the revetment the embankment having a length of about 410 meters was ready and earthwork of balance 100 meters against its total length of 510 meter was also complete. Pitching of stones on this remaining stretch of 100 meters of the embankment was in progress. The quality of work seemed good.

- (iii) Studs: Four studs each having a length of 30 meters made of crate mesh with boulders filled in it were found to be complete. The studs were in good condition except for some damage which had caused to one of these at the edge towards the river. The fierce flow of water seemed to have eroded the mud beneath it due to which it was a bit tilted and the crate mesh damaged at this spot.

It was also observed that some area, reported to be about 4 hectares, had been reclaimed behind the embankment and was filled with water. At two locations 3 number reinforced cement concrete pipes had been laid beneath the embankment for draining water from the reclaimed land/ village fields into the river.

The Chief Planning Officer, Reasi was of the view that the portion of re-claimed land which belonged to the state (other than private) could also be developed into a fish pond by the Fisheries Department as it was low lying and contained water in it.

While going further along the road, it was observed that the bank ahead of this location downstream the river was also getting eroded and could endanger the road connectivity during the next summer/ monsoon if not during the current one.

Location 2: This location which was also inspected and was upstream of the first location and could be approached by walking for a distance of about a kilometre on the bed of a non-perennial nallah which had no water during the field visit. At this location one deflector, four studs and some crate work for protecting the banks of Chenab were inspected.

- (i) Deflector: One deflector about 90 meters long made of crate mesh comprising boulders was found to be in good condition except for its edge protruding towards the river which was damaged. The flow of water was fast and had eroded the mud beneath the deflector at the edge and so this portion was also tilted downwards. It was informed by the Executive Engineer concerned that this deflector comprised of three steps of crate work lying one above the other. The width of the steps at the top was 4 meters and was visible, however the remaining two steps which were of 5 meters and 6 meters width were beneath the water and hence not evident.
- (ii) Studs: Four studs each of 30 meters length were erected at certain distance one after the other downstream of the main deflector. The edges of a couple of these studs too were found damaged as this was the place where water struck most hardly.
- (iii) Crate wall: Crate wall of about 1.5 meters height was also laid along the bank in between the studs.

Location 3: This location which was further upstream of the first two locations was not easily approachable and had only one 30 meter long stud erected against the target of two for this particular site. The Executive Engineer informed that the one stud which had been erected was also damaged at the edge in a fashion similar to the other damaged studs.

The Executive Engineer further informed that the edges of the studs and deflectors get damaged with passage of time and have to be restored time and again. Moreover, the studs and the deflector had been erected about 2 to 3 years back and so required maintenance for which funds were inadequate.

#### 11. Problem Areas/ Suggestions:

SNo	Problem Areas	Suggestions
1	Time overrun: The time period for completion of the project has already elapsed.	The balance work of the embankment and erection of the one remaining stud needs be completed by I&FC Department without further wastage of time.
2	Repairs: The edges of the deflector and some of the studs were found to be damaged.	Repair works on edges of deflector and damaged studs may be carried out without delay or else any further loosening of crate/ boulders could endanger the entire protection work.
3	Funding: Although 85% of the works seems to have been completed but only 50% of the funds have been provided.	The contractors who were also present at site were demanding for release of payments against works which they had completed more than a couple of years back. I&FC Department need to ensure that the balance funds are released in favour of Mahore Irrigation Division at the earliest.
4	Need for protection works at another location: Erosion of left bank of Chenab downstream of the embankment developed under the project seemed to be serious. There is every possibility that the road connectivity to Dera Baba could get affected in case anti-erosion/ protection works are not carried out soon.	I&FC Department need to ensure that anti-erosion works are carried out along this vulnerable stretch immediately after the monsoons.

SNo	Problem Areas	Suggestions
5	<p>Other projects: It was brought to notice by the Executive Engineer concerned that a couple of projects costing Rs 9 crore and Rs 14 crore for carrying out flood protection works along the banks of Chenab in Mahore Division are pending with Director, Central Water Commission, J&amp;K since long. Moreover, there are some other flood protection projects submitted to the Chief Engineer, I&amp;FC, Jammu which are yet to be sanctioned. Some of these are:</p> <p>(i) Flood Protection works on Ans river,</p> <p>(ii) Flood Protection works on Janghi Nallah,</p> <p>(iii) Flood Protection works from Plassu Nallah to Chinka Rad Nallah</p>	<p>Director, Central Water Commission, J&amp;K needs to see that the projects of flood protection works submitted by Mahore Irrigation Division are cleared on priority as any delay in this regard could endanger life and property of people living in this far flung area.</p> <p>Chief Engineer, I&amp;FC, Jammu needs to ensure that the list of flood protection projects submitted to his office are prioritized depending on their emergent nature and accordingly sanction/funding obtained from the Administrative Department and execution ensured through the concerned Divisions from time to time so as to avoid damage due to natural calamities along the banks of different rivers/nallahs.</p>

## 12. Conclusion:-

Physical Verification Conducted by:	Madan Gopal Sharma, Deputy Director Planning, Monitoring Cell, Chief Minister's Secretariat.
Officers of Executing Agency who accompanied:	Sh. Janak Raj, Chief Planning Officer, Reasi. Sh. B.L. Bhardwaj, Executive Engineer, Mahore Irrigation Division, Dharmari. Sh. Gulshan Kumar, Statistical Officer (Planning), Reasi. Sh. V.K. Khajuria, (AEE) Sh. Neeraj Bhagat, (JE) Irrigation Sub-Division, Reasi.