

## CHAPTER V : MINISTRY OF WATER RESOURCES

### Functioning of Brahmaputra Board

#### Highlights

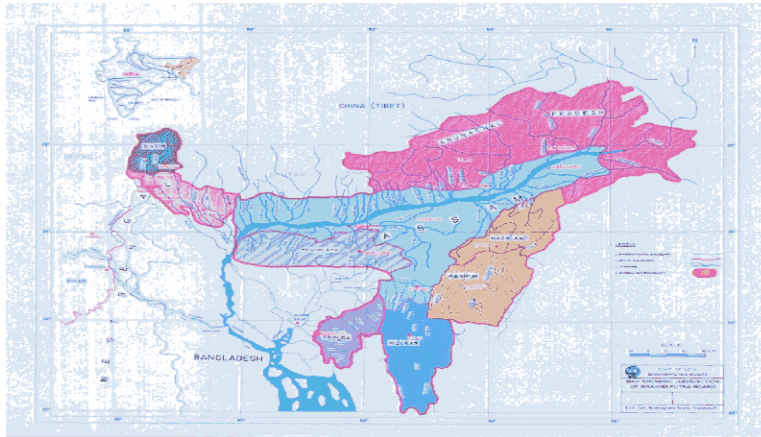
- ❖ The Board could not complete the main activity of preparation of Master Plans. It could prepare and get approval for only 43 Master Plans against a target of 57 during last 27 years of existence.  
*(Paragraph 5.11)*
- ❖ The Board took up work of preparation of DPRs for 64 projects but, it could complete only 34 DPRs. It could get approval for only 12 DPRs from Central Water Commission.  
*(Paragraph 5.12)*
- ❖ Delay in completion of six projects under Drainage Development Scheme and one multipurpose project resulted in non-realisation of benefit of ₹243.72 crore in the form of increased agriculture produce/flood control/power generation perceived from the projects.  
*(Paragraph 5.13.1)*
- ❖ The execution of Pagladiya Dam project could not start for want of land from the state Government. As the chances of acquisition/allotment of land by the state Government were remote, the expenditure of ₹25.77 crore incurred might be rendered infructuous.  
*(Paragraph 5.13.5)*

#### Summary of recommendations

- *The Board should prescribe time frame for preparation of Master Plans*
- *The Board should take concerted efforts to expedite the work of preparation of DPRs*
- *The Board should take the problem of land acquisitions to the highest level*
- *The Board should have effective project monitoring to check time overruns*

## 5.1 Introduction

The Brahmaputra Board was established in 1980 under an Act of Parliament (Act 46 of 1980) as an autonomous statutory body under the aegis of the erstwhile Ministry of Irrigation (now Ministry of Water Resources), Government of India (GOI) for planning and integrated implementation of measures for control of floods and bank erosion in Brahmaputra Valley.



The jurisdiction of the Board was extended to all the States of the North Eastern Region in April 1982 and Sikkim and northern part of West

Bengal falling within the Brahmaputra and Barak Basins were included in December 2005.

The Board started functioning from January 1982 through 12 Divisions.

## 5.2 Functions of the Board

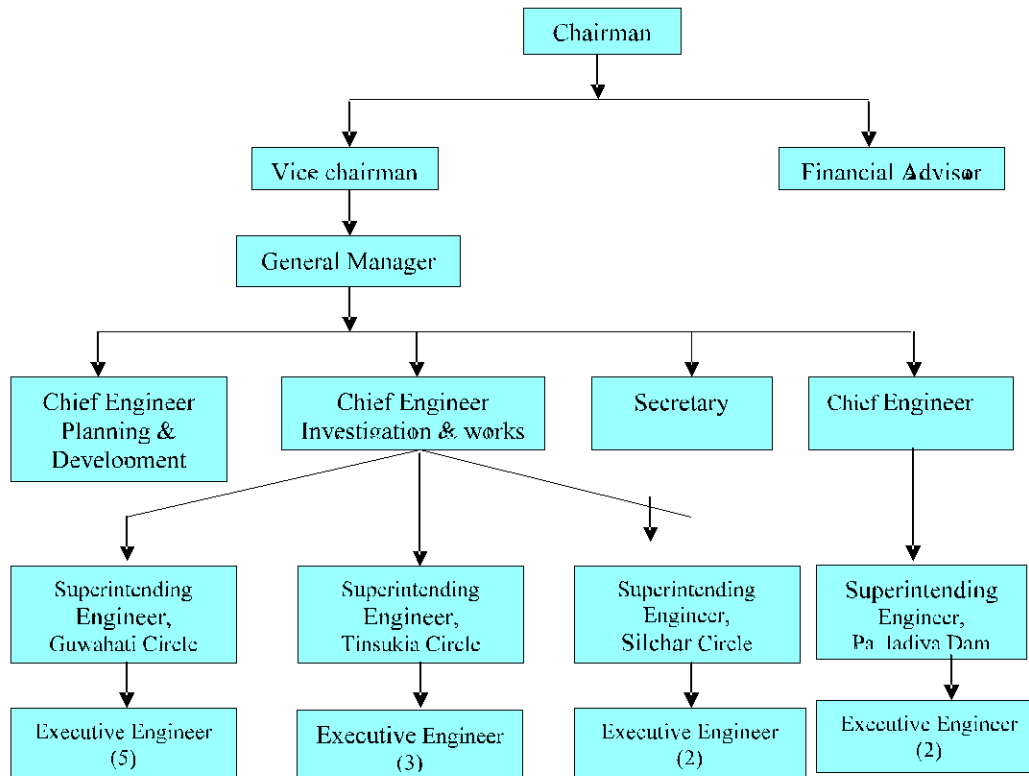
The main functions of Brahmaputra Board were:

- ✓ to carry out surveys and investigations in the Brahmaputra Valley and Barak valley to prepare, for approval of GOI, Master Plans for control of floods, bank erosion and improvement of drainage with due regard to development and utilization of water resources;
- ✓ to prepare Detailed Project Reports (DPR) and estimates in respect of the dams and other projects proposed in the Master Plan as approved by GOI and submit the same to Central Water Commission (CWC) for approval;
- ✓ to draw up standards and specifications for the construction, operation maintenance of dams and other projects
- ✓ to construct and undertake operation and maintenance of Multipurpose Dams and other projects;
- ✓ to perform such other functions as are supplemental, incidental or consequential to the functions specified above.

### 5.3 Organisational set up

The Board consisted of 21 members out of whom four were full time members (Chairman, Vice-chairman, General Manager and Financial Advisor) and 17 were part time members as representatives of the concerned State Governments, North Eastern Council and concerned ministries/departments of the GOI.

The organisation chart of the Board was as depicted below:



### 5.4 Scope of audit

Audit of the Board was conducted under section 19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. The performance audit of the Brahmaputra Board was conducted during October 2009 to January 2010 covering transactions for a period of five years from 2004-05 to 2008-09. Out of 20 projects involving an expenditure of ₹143.96 crore (**Annexure-IV**) being implemented by the Board, 12 projects involving an expenditure of ₹ 114.55 crore were randomly selected for test check in audit as detailed in **Annexure- I**.

## **5.5 Audit Objectives**

The main objectives of the performance audit were to ascertain whether:

- ✓ targets for preparation of master plan were achieved within the prescribed time frame;
- ✓ detailed project reports (DPRs) for the various activities to be undertaken by the Board were prepared following the due procedure;
- ✓ objective of the board for development and utilisation of water resources of the Brahmaputra valley and Barak Valley for irrigation, hydropower, navigation and other beneficial purpose was achieved as envisaged in its various projects;
- ✓ adequate funds were available with the Board and were utilised for the specified purposes;
- ✓ functioning of the Board relating to control of floods, bank erosion and improvement of drainage were efficient and effective and to the benefit of the concerned States;
- ✓ internal control mechanism within the Board and supervision by the Ministry was adequate and exercised by the Management/Ministry effectively and efficiently.

## **5.6 Audit Criteria**

Audit findings were benchmarked against the following criteria:

- ✓ The Brahmaputra Board Act, 1980;
- ✓ Master Plan documents and detailed project reports;
- ✓ Budget documents;
- ✓ Orders and instructions issued by GOI.

## **5.7 Audit Methodology**

The performance audit of the Board commenced with an entry conference with the management of the Brahmaputra Board in October 2009 where in audit methodology, scope, objectives and criteria were discussed. The audit methodology mainly consisted of inspection of records, collection and analysis of data. The audit observations were discussed with the Management in exit conference held on 5 July 2010.

### **Audit findings**

## **5.8 Financial Management**

The Board was funded by way of grant-in-aid from GOI for its works and establishment expenditure. The year-wise budget, grants-in-aid received and payments made by the Board during the period from 2004-05 to 2008-09 was as given below:

(₹ in crore)

Year	Budget Estimate Proposal	Revised Estimate Proposal	Opening Balance	Grants-in-aid received	Other receipt <sup>1</sup>	Total available funds	Total payments	Savings (Percentage)
2004-05	110.98	55.72	28.81	33.17	4.76	66.74	43.30	23.44 (35)
2005-06	231.65	66.76	23.44	31.29	3.63	58.36	36.41	21.95 (38)
2006-07	93.12	64.88	21.95	34.27	4.90	61.12	39.33	21.79 (36)
2007-08	81.76	58.23	21.79	33.83	5.70	61.32	39.49	21.83 (36)
2008-09	76.95	100.96	21.83	91.20	7.63	120.66	68.31	52.35 (43)
<b>Total</b>				<b>223.76</b>	<b>26.62</b>		<b>226.84</b>	

As seen from above table that despite partial release of approved budget estimates by the Ministry there were considerable savings ranging from 35 to 43 *per cent* of available funds in all the years. This showed that the Board did not prepare realistic budget estimates considering its fund absorption capacity. This resulted in accumulation of unspent balance to the tune of ₹52.35 crore as on March 2009. The Board kept these surplus funds in short term deposits with banks. Thus, unrealistic budget estimates resulted in blocking of scare resources and denied the opportunity to GOI for utilization of the same for other important development activities.

The Board stated (June 2010) that the shortfall in expenditure was due to intermittent flood, insurgency problem, delay in obtaining approvals of drawings and designs from Central Water Commission (CWC) and delay in land acquisition. It further stated that the surplus funds were invested in short term deposit to get the best value for Government money.

The Board's reply was not acceptable because of the fact that there were savings in all the years under review and the Board should have prepared its budget estimates considering the above factors. The objection raised by JS & FA (Ministry of Water Resources) in Board meeting held in December 2004 on retention of excess funds by the Board, substantiated the audit contention.

#### **5.8.1 Loss of interest on funds deposited with land acquisition authorities**

The Board deposited ₹10 crore with land acquisition authorities towards cost of compensation for land acquisition for Pagladiya Dam Project in March 2001 and ₹3.40 for cost of compensation for land acquisition and Zirat survey for Amjur Drainage Development Scheme in December 2008. The Chairman of the Board proposed maintaining a separate account. Audit scrutiny revealed that these funds were not kept in a separate account and the land acquisition authorities could not utilise it till date of audit (November 2009). However, the land acquisition authorities for Pagladiya Dam Project refunded the amount of ₹10 crore in November 2009 on the request of the Board.

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<sup>1</sup> Interest, fund against deposit works and misc. receipt

The Board suffered a loss of ₹6.23 crore towards interest calculated at the rate of seven *per cent* per annum as the funds were not kept in separate accounts.

### **5.8.2 Blocking of funds in idle stock**

Pagladiya Dam Project division of the Board procured (February 2001) 300 mt of CGI Sheets at a cost of ₹84.20 lakh. However, the division could utilise 124 mt of CGI sheet only and a quantity of 176 mt valuing to ₹49.40 lakh was lying idle with the division as on March 2009. The Board stated (December 2009) that the material was being issued to other divisions of the Board. It was evident from the reply of the Board that the division procured material in excess without assessment of actual requirement resulting in blocking of funds of ₹49.40 lakh in idle stock.

### **5.8.3 Non-reimbursement of the cost of projects**

Scrutiny of records of Headquarters revealed that the Board handed over (March 1999) Tipaimukh Dam Project to North Eastern Electrical and Power Corporation (NEEPCO) in pursuance of instructions of the Ministry. A claim for reimbursement of ₹4.88 crore being the expenditure incurred by the Board before handing over the project was lodged with NEEPCO in July 1999 but no amount could be realised so far (January 2010).

Similarly Dehang and Subansiri projects were handed over to National Hydro-electric Power Corporation (NHPC) after incurring expenditure of ₹26.51 crore in March 2000. A claim for reimbursement of the expenditure incurred was lodged with NHPC. However, the Board could realise ₹1.35 crore from NHPC and a balance of ₹25.16 crore was outstanding as on the date of audit (January 2010).

### ***Recommendations***

- *The Board should prepare its budget considering fund absorption capacity to avoid accumulation of unspent balance of funds*
- *The Board should effectively pursue utilisation of funds deposited with land acquisition authorities to avoid loss of interest*
- *The Board should take action for realisation of overdue outstandings from NEEPCO and NHPC*

### **5.9 Expenditure on establishment**

A statement showing total expenditure and expenditure on works vis-a-vis establishment and administration during the period covered in Audit was as below:

(₹ in crore)

Year	Total Expenditure (excluding depreciation)	Works Expenditure (including deposit work)		Estt. & Admin. Expenditure	
		Amount	Percentage to total expenditure	Amount	Percentage to total expenditure
2004-05	36.06	25.30	70	10.76	30
2005-06	34.36	22.22	65	12.15	35
2006-07	37.62	24.45	65	13.17	35
2007-08	37.52	23.81	63	13.72	37
2008-09	65.49	41.20	63	24.29	37
<b>Total</b>	<b>211.05</b>	<b>136.98</b>		<b>74.09</b>	

It may be observed from the table above that establishment and other administrative expenditure was on the higher side which ranged from 30 *per cent* to 37 *per cent* of total expenditure during the period under review.

### 5.9.1 Excess expenditure on work-charged establishment

Test check revealed the following instances of excess expenditure:

- According to DPR for Harang Drainage Development Scheme, the work charged expenditure on works component should not exceed two *per cent* of the estimated cost of ₹19.82 crore. The execution of work started in February 1999 was scheduled for completion by March 2004. It was observed in audit that an amount of ₹1.01 crore had been incurred up to March 2009 against the ceiling of ₹40 lakh and the work was still in progress (95 *per cent* complete as of March 2009). The time overrun resulted in excess expenditure on work charged establishment over the ceiling prescribed in the DPR.
- Similarly the expenditure on work charged pay for survey and investigation work for Jiadhhal Drainage Development Scheme was estimated at ₹1.12 crore. However, the actual expenditure incurred was ₹1.96 crore resulting in excess expenditure of ₹84 lakh over the estimates.

### 5.10 Status of activities

The status of various activities of the Board since inception to March 2009 was as depicted below:



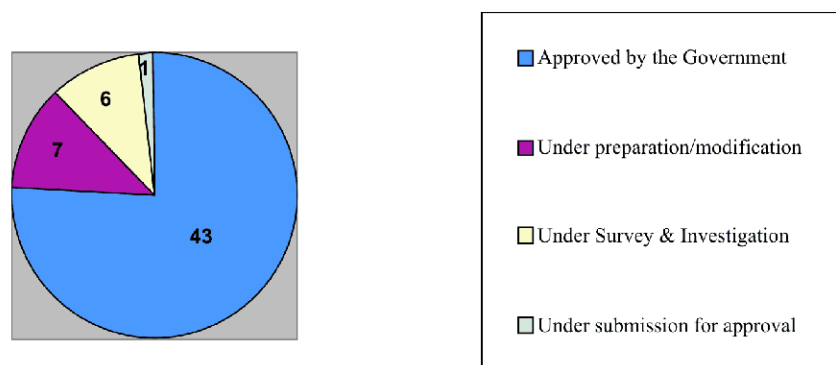
The observations made during the course of audit are discussed in subsequent paragraphs.

### 5.11 Preparation of Master Plans

The Board was required to prepare a Master Plan for the control of floods and bank erosion and improvement of drainage in the Brahmaputra Valley and Barak Valley with due regard to the development and utilisation of water resources for irrigation, hydropower, navigation and other beneficial purposes by indicating the works and other measures to be undertaken for such development after conducting survey and investigation. A copy of Master Plan was to be given to all concerned state Governments /Agencies for their comments. GOI was to approve the Master Plan in consultation with the concerned state Governments. The Board did not prescribe any time frame for preparation of the Master Plan.



The status of preparation of Master Plans as on 31 March 2009 was as shown below:



It may be observed that against the target of 57 Master Plans as detailed in **Annexure-II**, the Board could complete and get approved only 43 Master Plans up to January 2010. Thus, the Board failed to complete the very first activity i.e. preparation of Master Plan during last 27 years of its existence.

The management stated (March 2010) that it has been targeted to complete the Master Plans by 2012.

Scrutiny of records revealed that the Board prepared the Master Plan in parts with reference to different areas as detailed below:

Part	Name of Master Plan	Date of completion	Date of Approval by GOI
I	Master Plan on main stem Brahmaputra river	1986	August 1997
II	Master Plan on Barak River and its tributaries	1988	August 1997
III	Master Plan on tributaries of the Brahmaputra and rivers of Tripura state including Majuli island	In progress since 1995	Completed parts approved during 2004 to 2009

It may be observed that GOI took up to 11 years to approve the Master Plans. Audit scrutiny further revealed that two projects (Rongsai and Batha) relating to Drainage Development Scheme were included in approved Master Plans but subsequently cancelled after start of work of preparation of Detailed Project Reports because the state Government had already taken up these projects. This showed lack of coordination between the Board and the state Governments at the time of preparation of Master Plan.

### **Recommendations**

- *The Board should prescribe a time frame for preparation of Master Plans*

- *The Board should consult concerned state Governments at the time of preparation of Master Plan to avoid duplication of projects*

### **5.12 Preparation of Detailed Project Reports**

The Board was required to prepare Detailed Project Report (DPR) in respect of the dams and other projects proposed in the Master Plan as approved by GOI. However, the Board did not stipulate any time schedule for conducting Survey and Investigations and preparation of DPRs. Board took up Survey and Investigation and preparation of DPRs for 64 projects as detailed in **Annexure-III** and out of that work for 34 projects could be completed up to date of audit (January 2010). The Board could obtain approval of CWC for 12 DPRs only and approval for 15 DPRs was awaited as of January 2010.

Audit scrutiny revealed the following in respect of work of preparation of DPRs:

- Out of 41 projects relating to Drainage Development Scheme taken for preparation of DPR, the Board could complete the work of preparation of DPRs for 22 projects only. The work of preparation of DPR for Batha was cancelled because the state Government had taken up the work of construction of sluice gate and re-sectioning. The work for balance 18 projects was in progress. Out of 22 DPRs completed two schemes (Konwarpur and Rang sai) were deleted. Out of balance 20 DPRs CWC approved 11 DPRs and raised comments (June 1992 to July 2008) against nine DPRs. Though, the Board was to submit its replies within the stipulated time of one year, it had not submitted the same till date of audit (January 2010).
- CWC raised comments (October 2005 to May 2008) on six DPRs relating to flood control measures, but Board did not furnish its replies to the comments of CWC till date of audit (January 2010). Further, the Board took up 10 projects relating to flood control measures for execution and seven had been completed. The work for one project was in progress and for other two projects was to start as of date of audit (January 2010). However, the fact that the DPRs for these projects were prepared and approved by CWC could not be ascertained in audit for want of relevant information.
- Out of 14 Multipurpose Projects (including two projects as deposit work) taken up for preparation of DPR, the Board could complete six DPRs (including one deposit work which was handed over to Government of Mizoram). During the test check of records, it was observed that out of eight projects for which work of DPR was in progress, three projects<sup>2</sup> taken up in 1997 and scheduled for completion by 2000 were not completed so far. The DPR work for

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<sup>2</sup> Kushi, Kynshi-I and Simsang

Jiadhhal project was to be completed by December 2003 but the same could not be completed for want of Environment Impact Assessment and Environmental Management Program from M/s Agricultural Finance Corporation Ltd.

- The board took up preparation of DPRs for three Mini Micro Hydel projects during 2004-05 for completion in two years at an approved cost of ₹30 lakh each. However, it was observed that the Board incurred ₹82.97 lakh on these projects but the works remained incomplete after a lapse of more than four years from the scheduled date of completion.

The above observations indicated absence of time bound programme to complete the DPRs. Non-submission of replies to the comments of CWC by the Board resulted in delay in approval of DPRs and consequential delay in execution of work.

#### ***Recommendations***

- *The Board should take concerted efforts to expedite the work of preparation of DPRs*
- *The Board should submit replies to the comments of CWC within stipulated time for approval of DPRs without delay*

#### **5.13 Execution**

The Board took up 20 projects under different schemes for execution, but only seven projects under protection works could be completed up to March 2009 as detailed in **Annexure-IV**. Audit observations made during test check of records relating to execution of projects are discussed in the following sub-paragraphs:

##### **5.13.1 Loss of benefit due to delay in completion of projects**

It was envisaged that implementation of Drainage Development Schemes would mitigate flood problem and result in higher agriculture produce. Similarly, the envisaged benefits from Pagladiya dam project included flood control, power generation and irrigation. Therefore, the project benefits were quantified in financial terms. Audit scrutiny revealed that the Board took up the following projects for execution during February 2001 to November 2006 but none of them was completed even after lapse of 1 to 7.5 years from the respective scheduled date of completion till date of audit (January 2010) as detailed in the table given below:

(₹ in crore)

Sl. No.	Name of project	Administrative approval	Estimated cost/ Revised estimated cost	NOC issued by State Govt.	Target date of completion	Expenditure	Annual cost benefit	Present status (percentage of completion)	Period of delay till January 2010 (in years)	Loss of benefit
1.	Amjur DDS	January 2006	14.15	June 2006	March 2009	4.50	9.98	10	1	9.98
2.	Harang DDS	February 1998	30.49	NA	March 2004	28.80	10.80	95	6	64.80
3.	Jengrai DDS	March 1998	1.49	February 2001	August 2002	1.04	0.39	30	7.5	2.92
4.	Joysagar DD	March 2000	2.13	October 2001	October 2004	0.01	2.79	Yet to start	5.5	15.35
5.	Kailasahar DDS	NA	4.18	September 2002	September 2005	0.14	1.35	Yet to start	4.5	6.07
6.	Singla DDS	February 2006	3.54	November 2006	March 2008	0.15	3.79	Yet to start	2	7.58
7.	Pagladiya Dam project	January 2001	542.90	NA	December 2007	25.77	68.51	Yet to start	2	137.02
<b>Total</b>			<b>598.88</b>			<b>60.41</b>				<b>243.72</b>

It may be observed from the above table that work on four projects had not started and physical progress of the balance three was ranging from 10 per cent to 95 per cent. The work on these four projects could not start due to land acquisition problems. The Board took three years to obtain No Objection Certificate from the state Government in respect of Jengrai project and the completion further delayed due to non-finalisation of working design of sluice by IIT, Guwahati (work awarded in July 2006). Harang project could not be completed within the scheduled date due to rescinding of work on failure of contractors and delay in re-award of balance work. The progress of Amjur project was poor for want of land from the state Government.

Even though, the Board had incurred an expenditure of ₹60.41 crore (up to March 2009) of the estimated cost of ₹598.88 crore on execution of the above projects, the delay in completion resulted in consequential loss of ₹243.72 crore in the form of increased agriculture produce/flood control/power generation benefits perceived from the above projects.

### 5.13.2 Extra expenditure

The Board awarded the work for construction of Kinnorkhal sluice regulator under Harang DDS project to a contractor at a cost of ₹1.80 crore in February 1999 with scheduled completion date of September 2000. The contractor started the construction work in December 1999. Subsequently, the Board changed (November 2000) the drawings and designs and the cost was revised to ₹4.81 crore. Initially, the contractor agreed to execute the work as per changed drawings and designs at the agreed rate subject to supply of Z-type sheet piles in respect of additional items by the Board. However, the contractor after executing work valued at ₹1.43 crore stopped the work from April 2001 leaving the balance work of ₹3.38 crore. The Board withdrew the

work from the contractor in March 2002 and awarded the balance work at a cost of ₹3.62 crore to another contractor in August 2002 with scheduled date of completion as September 2003. Further scrutiny revealed that after stoppage of work by the earlier contractor and delay in start of work by new contractor, there was accumulation of silt in the work site and the same was cleared by the new contractor for which ₹30.22 lakh was paid by the Board. Finally, the work was completed in July 2006 at a cost of ₹4.28 crore



(including supplementary items valuing ₹85.13 lakh). Thus, the completion of work was delayed by more than five years due to failure of original contractor to complete the work. Though, there was a provision for recovery of penalty for delay in completion of work (up to 10 *per cent* of value of

balance work) and excess expenditure incurred by the Board for completion of balance work, no claim for recoveries amounting to ₹ 64 lakh was lodged with the contractor.

### 5.13.3 Undue benefit to contractor

The construction of Kakrakhal Sluice Regulator under Harang DDS project was awarded to a contractor at a cost of ₹1.77 crore in February 1999 with scheduled completion date of September 2000. Subsequently, in September 2004, the Board revised the cost to ₹4.89 crore along with scheduled completion date as December 2004 due to change in design and specifications. But the contractor failed to complete the work and suspended the work after executing 93 *per cent* work valuing ₹5.72 crore (including supplementary items). Consequently, the Board rescinded the work in August 2007. The balance work was estimated at ₹74.43 lakh (civil work ₹ 55.14 lakh and mechanical work ₹19.29 lakh). The Board re-awarded balance civil work in May 2009 at a cost of ₹92.24 lakh after a gap of almost two years which was in progress (70 *per cent*) as of May 2010. The other part (mechanical work) was re-awarded in March 2010 at a cost of 42.92 lakh after almost three years which was yet to start. Thus, the original contractor's failure to complete the work and delay in re-award the work by the Board resulted in cost overrun by ₹60.73 lakh and time overrun by more than five years till date. The reason for initial delay was stated to be non-availability of approach road to the contractor for which the Board had to pay ₹60.30 lakh to the contractor as compensation for escalation. Though, the Board could recover ₹7.82 lakh against penalty of ₹10.20 lakh but, no claim for recovery of ₹60.73 lakh being the excess expenditure to be incurred by the Board for completion of balance work was lodged with the contractor.

### 5.13.4 Non-recovery of penalty from contractors

In January 2005, GOI approved a scheme for protection of Majuli island Phase-I from soil erosion at a cost of ₹41.28 crore (revised to ₹56.07 crore in August 2008). Instead of executing the scheme in single lot, the Board divided it in 28 works spread over in three years. These works were awarded to 19 contractors (from March 2005 to November 2007) at a total cost of ₹47.75 crore. Out of 19 contractors seven contractors executing eight works could not complete their work within the stipulated time as detailed below:

Sl.	Name of work	Tendered cost (₹ in crore)	Date of award	Date of start	Scheduled date of completion	Physical progress in percentage as on March 2009
1.	Repair and construction of nose portion of check dam of Kandhulimari check dam	1.61	22.2.05	24.4.05	45 days	13
2.	Repair and construction of nose portion of check dam No. 2 at Sonowal Kaehari	1.53	22.2.05	4.3.05	45 days	38
3.	Raising and strengthening of embankment (Upper Stream of Kamalabari)	8.37	11.3.05	21.3.05	3 months	31
4.	Raising and strengthening of embankment of Brahmaputra dyke from Bessamara to Kharkharijan	1.93	14.3.07	23.3.07	3 months	91
5.	Raising and strengthening of embankment of Brahmaputra dyke from Tekeliphuta to Kandhulimari	1.67	14.3.07	25.2.07	3 months	92
6.	Raising and strengthening of embankment from Kandhulimari to Bessamara	1.42	14.3.07	15.3.07	3 months	92
7.	Raising and strengthening of embankment of embankment from Kandhulimari to Bessamara	1.33	14.3.07	3.3.07	3 months	85
8.	Closing of three Nos. breaches of Kamalabari Road in between Khabulughat and Luit Ghat	1.49	19.4.07	9.4.07	3 months	82
<b>Total</b>		<b>19.35</b>				

The reasons for non-completion of the works even after lapse of more than 20 months could not be assessed in audit due to non availability of relevant records with the division concerned. Though, there was provision for levy of penalty on contractors for delay in completion of project, the Board did not work out and claim penalty from the contractors.

### 5.13.5 Non-execution of project due to non-availability of land

In January 2001, GOI accorded sanction for construction of “Pagaladiya Dam Project” at an estimated cost of ₹542.90 crore and was scheduled to be completed by December 2007. The execution of the project was dependent on two major activities to be carried out by the state Government of Assam viz. (i) Zirat Survey<sup>3</sup> and (ii) Land allotment/acquisition. The total land requirement was assessed at 7510 ha. The state Government could make available 956 ha of Government land in 33 locations till date of audit (January 2010). The tentative estimate for rehabilitation work was ₹99.04 crore. The Board made an advance payment of ₹10 crore to the state Government in March 2001 but the state Government could not conduct Zirat Survey due to resistance from project affected families. The state Government refunded the advance amount in November 2009. Meanwhile, the Board incurred ₹25.77 crore on various items from April 2001 to March 2009 including 16 residential quarters and one guesthouse (₹1.04 crore) which were lying idle.

The Chairman of High Powered Review Board also stated in November 2005 that the project would have to be abandoned unless the Zirat Survey was conducted by the state Government.

As the state Government failed to conduct Zirat Survey/acquisition of land (March 2009) and also refunded the advance money, the possibility of completion of this project was remote. In the event of non-availability of land, all expenditure of ₹25.77 crore would be rendered infructuous.

#### **Recommendations**

- *The Board should take up the problem of land acquisition at the highest level*
- *The Board needs to check time overrun in execution of projects by effective project management and control*

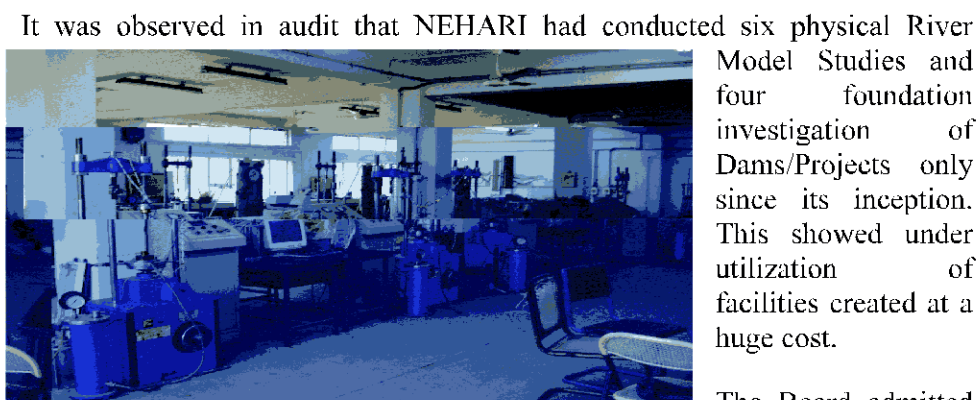
### 5.14 Utilisation of facilities at NEHARI

The North Eastern Hydraulic & Allied Research Institute (NEHARI) was established at Rudreswar (North Guwahati) in December 1996 at a cost of ₹13.67 crore with the following facilities.

- i) Hydraulic laboratory with facilities for physical model studies.
- ii) Material testing laboratories for rock, concrete and soil.

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<sup>3</sup> Property assessment of the project affected families for finalizing the re-settlement and rehabilitation plan.



It was observed in audit that NEHARI had conducted six physical River Model Studies and four foundation investigation of Dams/Projects only since its inception. This showed under utilization of facilities created at a huge cost.

The Board admitted (March 2010) that the Laboratory was fully equipped but underutilised for lack of technical manpower as men-in-position was 34 only against the proposed 122 posts. Thus the objective for which NEHARI was established remained largely unachieved due to lack of required manpower.

### **5.15 Project monitoring**

For timely completion of any project effective monitoring was required. The project control mechanism could work only when there was adequate documentation and efficient Management Information System. However, audit observed the following deficiencies:

- None of the projects could be completed in scheduled time indicating lack of effective control mechanism.
- The Board was to draw up standards and specifications for construction, operation and maintenance of dams and other projects, but till date no manual containing such standards and specifications were prepared.
- All the records/information requisitioned by audit was not provided by the Board which indicated poor maintenance and upkeep of records.
- As per GOI instructions (December 2008), the Board was to get evaluation study through independent agencies to assess the quality and usefulness of the work executed. But, the Board had not engaged any agency for this work till date of audit (January 2010).

#### **5.15.1 Functioning of High Powered Review Board**

High Powered Review Board (HPRB) was formed in March 1982 by GOI to oversee the activities of the Brahmaputra Board. Since its inception, only five meetings were held till March 2009. The last meeting was held in November 2005 at New Delhi after a gap of 12 years from the fourth meeting in April 1993. Though, in the fifth meeting, the Chairman, HPRB assured conveying of HPRB meeting every year no meeting was thereafter.



### **Conclusion**

The Board was required to prepare a Master Plan for the control of floods and bank erosion and improvement of drainage in the Brahmaputra Valley and Barak Valley. The Board did not prescribe any time frame for preparation of the Master Plan resulting in non-completion of the activity till date. Thus, the Board failed to complete the main activity i.e. preparation of Master Plan during last 27 years of its existence. There was lack of coordination between the Board and the States at the time of preparation of Master Plans. The Board could complete preparation of DPRs for 34 projects against 64 projects. Approval of CWC could be obtained for 12 DPRs only against 29 DPRs submitted up to January 2010. The Board took up 20 projects under different schemes for execution, but it could complete only seven projects. Audit scrutiny revealed that five projects could not be completed for want of land. The Board suffered loss of interest of ₹6.23 crore as the funds deposited with land acquisition authorities were not kept in separate accounts. Delay in completion of DDS projects had resulted in loss of ₹243.72 crore in the form of non- achievement of perceived cost benefits under the schemes. The potential of NEHARI set up at huge cost was underutilised due to inadequate manpower. Project monitoring mechanism was not effective. Audit scrutiny revealed that upto date records in respect of projects was not maintained.

The fact that the Board could complete only seven projects, that too under protection works, during its existence for 27 years proved that it failed to achieve its objectives.

### **Acknowledgement**

We acknowledge the co-operation of the Board management during course of audit.

The performance audit report was issued to the Ministry on 2 July 2010; their reply was awaited as of October 2010.

New Delhi  
Dated:

**(ROY MATHRANI)**  
**Director General of Audit**  
**Central Expenditure**

**Countersigned**

New Delhi  
Dated:

**(VINOD RAI)**  
**Comptroller and Auditor General of India**

## Annexure-I

(Referred to in paragraph 5.4)

## List of projects selected for audit

Sl. No.	Name of the Project	Name of the executing Division	Estimated cost (₹ in crore)	Actual expenditure up to March 2009 (₹ in crore)	Progress in percentage
<b>Drainage Development Scheme</b>					
1.	Amjur DDS	Barak valley	14.15	4.50	10
2.	Harang DDS	Barak valley	30.49	28.80	95
3.	Jengrai DDS	Lakhimpur	1.49	1.04	30
4.	Joysagar DDS	Nagaon	2.13	0.01	Yet to start
5.	Kailasahar DDS	Agartala	4.18	0.14	Yet to start
6.	Singla DDS	Barak valley	3.54	0.15	Yet to start
<b>Protection Work</b>					
7.	Kushiabil Ph-I	Nagaon	0.85	0.79	Completed
8.	Kushiabil Ph II	Nagaon	1.80	1.60	Completed
9.	Majuli Island	Lakhimpur	6.22	5.92	Completed
10.	Majuli Ph. I	Lakhimpur	56.07	45.83	93
11.	Majuli Ph. II & III	Lakhimpur	128.00	-	Yet to start
<b>Multipurpose Project</b>					
12.	Pagladiya Dam Project	Nalbari	542.90	25.77	Yet to start
<b>Total</b>			<b>791.82</b>	<b>114.55</b>	

**Annexure-II**  
*(Referred to in paragraph 5.11)*

**Details of Master Plans**

Sl. No.	Name of the Master Plan	Date of Completion	Date of Approval by GOI
1.	Barak and its tributaries	1988	08.08.1997
2.	Bargang	In progress	Pending
3.	Barnadi	2009	23.02.2004
4.	Belsiri	2004	23.02.2004
5.	Beki-Manas-Aie	In progress	Pending
6.	Bharalu	1998	23.02.2004
7.	Bhogdoi	2004	23.02.2004
8.	Brahmajan	In progress	Pending
9.	Brahmaputra Basin Stem	1986	08.08.1997
10.	Burima	1999	23.02.2004
11.	Buri-Dehing	1995	23.02.2004
12.	Buroi	NA	Pending
13.	Champamati	1998	23.02.2004
14.	Dhalai	2000	23.02.2004
15.	Dhaleswari	2002	23.02.2004
16.	Dhansiri (N)	2009	23.02.2004
17.	Dhansiri(S)	1996	23.02.2004
18.	Dikhow	1995	23.02.2004
19.	Dikrong	1996	23.02.2004
20.	Dipota	2005	23.02.2004
21.	Disang	1998	23.02.2004
22.	Dudhnoi-Krishnai	In progress	Pending
23.	Gabharu	2003	23.02.2004
24.	Gadadbar	2004	23.02.2004
25.	Gaurang	2002	23.02.2004
26.	Ghiladhari	2001	23.02.2004
27.	Gumti	1996	23.02.2004
28.	Haora	2003	23.02.2004
29.	Jadukata	In progress	Pending
30.	Jaldhaka	In progress	Pending
31.	Jia-Bharali	1998	23.02.2004
32.	Jiadhal	2000	23.02.2004
33.	Jinari	1999	23.02.2004
34.	Jinjiram	2001	23.02.2004
35.	Jhanji	2002	23.02.2004
36.	Juri	1999	23.02.2004
37.	Kapili-Kolong	1995	23.02.2004
38.	Khowai	2000	23.02.2004
39.	Kulsi-Deosila	2005	23.02.2004
40.	Lohit	2000	23.02.2004

<b>Sl. No.</b>	<b>Name of the Master Plan</b>	<b>Date of Completion</b>	<b>Date of Approval by GOI</b>
41.	Majuli island	2000	23.02.2004
42.	Manu	1997	23.02.2004
43.	Moridhal	2001	23.02.2004
44.	Muhuri	1997	23.02.2004
45.	Nanoi	1999	23.02.2004
46.	Noa-Nadi	1998	23.02.2004
47.	Pagladiya	1996	23.02.2004
48.	Puthimari	1995	23.02.2004
49.	Ranganadil	1995	23.02.2004
50.	Someswari	In progress	Pending
51.	Sonkosh	In progress	Pending
52.	Subansiri	2002	23.02.2004
53.	Tangani	In progress	Pending
54.	Teesta	In progress	Pending
55.	Tipkai	In progress	Pending
56.	Torsa-Kaljani and Raidak	In progress	Pending
57.	Um-N-Got	In progress	Pending

Annexure-III

(Referred to in paragraph 5.12)

Status of preparation of Detailed Project Reports

Sl. No.	Name of project	Estimated cost (₹ in lakh)	Date of start	Scheduled date of completion	Expenditure up to March 2009 (₹ in lakh)	Date of completion	Date of Approval by CWC
<b>Drainage Development Schemes</b>							
1.	Amjur	NA	NA	NA	NA	Completed (2005)	2006
2.	Badri	31.28	NA	NA	30.98	Completed 2002	Pending
3.	Barbhag	NA	NA	NA	NA	Completed (2000)	2006
4.	Batha	11.00	2003	2008	7.18	Discontinued	
5.	Bherekibil	NA	NA	NA	NA	In progress	
6.	Demow	NA	NA	NA	NA	Completed 2007	2008 (Handed over to state Govt. of Assam)
7.	Deori	NA	NA	NA	NA	Completed 1995	Pending
8.	Depota	19.12	May'06	May'08	12.41	In progress	
9.	Dharmanagar	21.45	March'01	March'02	20.77	Completed 2008	Pending
10.	East of Barpeta	NA	NA	NA	NA	Completed (1998)	2006
11.	Gelabil	NA	NA	NA	NA	In progress	
12.	Ghagra	11.00	1987	1991	2.20	Completed (1993)	Pending
13.	Ghiladhari	NA	NA	NA	NA	In progress	
14.	Harang	NA	NA	NA	NA	Completed (1996)	1998
15.	Haria Nanoi	35.12	May'08	May'10	14.20	In progress	
16.	Jakaiehuk	NA	NA	NA	NA	Completed (1998)	2006
17.	Jengrai	NA	NA	NA	NA	Completed (1998)	2006
18.	Joysagar	NA	NA	NA	NA	Completed (1998)	2006
19.	Kailasahar	NA	NA	NA	NA	Completed (2001)	2006
20.	Kalamonijan	17.90	May'03	May'07	17.53	In progress	
21.	Khatra	NA	NA	NA	NA	In progress	
22.	Konwarpur	NA	NA	NA	NA	Completed 1993	Cancelled
23.	Larsing	31.28	NA	NA	0.08	In progress	
24.	Larua-Jamira-	NA	NA	NA	NA	In progress	

Sl. No.	Name of project	Estimated cost (₹ in lakh)	Date of start	Scheduled date of completion	Expenditure up to March 2009 (₹ in lakh)	Date of completion	Date of Approval by CWC
	Sessa						
25.	Mora Dikrong	NA	NA	NA	NA	Completed 2002	Pending
26.	Mora Picholamukh	13.15	NA	NA	NA	In progress	
27.	Mori Kollong (Puti Kollong)	13.18	May'03	May'07	12.94	In progress	
28.	Nellie	12.54	May'03	May'07	12.87	In progress	
29.	Pakania	NA	NA	NA	NA	In progress	
30.	Pola	7.00	1988	1991	0.17	Completed 1992	Pending
31.	Punir	NA	NA	NA	NA	In progress	
32.	Rangsai	NA	NA	NA	NA	Completed 1993	Cancelled
33.	Rudrasagar	NA	NA	NA	0.12	Completed 2006	2006 (Handed over to state Govt. of Tripura)
34.	Singla	NA	NA	NA	NA	Completed (2001)	2006
35.	Sessa	NA	NA	NA	NA	Completed 1993	Pending
36.	Sessapathar	NA	NA	NA	NA	In progress	
37.	Sukhsagar	23.79	April'97	NA	23.77	In progress	
38.	Sonai	NA	NA	NA	NA	Completed 1991	Pending
39.	West of Barpeta	NA	NA	NA	NA	Completed 2002	Pending
40.	Namdang	NA	NA	NA	NA	In progress	
41.	Tingrai	NA	NA	NA	NA	In progress	
<b>Flood Control/Protection Schemes</b>							
42.	Bharalumukh to Nilachal Hills (Ph.-II)	NA	NA	NA	NA	Completed (NA)	Pending
43.	Ganigram and Santipur.	NA	NA	NA	NA	Completed (NA)	Pending
44.	Madhuramukh and Bethukundi	NA	NA	NA	NA	Completed (NA)	Pending
45.	Rajtilla and Sialtek.	NA	NA	NA	NA	Completed (NA)	Pending
46.	Sukleswar ghat to Bharalumukh (Ph.-I)	NA	NA	NA	NA	Completed (NA)	Pending
47.	Tarapur-Daspara area of Silehar Town	NA	NA	NA	NA	Completed (NA)	Pending

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Sl. No.	Name of project	Estimated cost (₹ in lakh)	Date of start	Scheduled date of completion	Expenditure up to March 2009 (₹ in lakh)	Date of completion	Date of Approval by CWC
<b>Multipurpose projects</b>							
48.	Bairabi Dam Project	NA	NA	NA	NA	Completed (2000)	Handed over to state Govt. Mizoram.
49.	Dibang Dam Project	NA	NA	NA	NA	Completed (NA)	Handed over to NHPC
50.	Jiadhal	382.00	2001	March'04	321.51	In progress	
51.	Killing	499.94	2003	March'12	315.41	In progress	
52.	Kulsi	490	1997	2000	484.29	In progress	
53.	Kynshi-I (Jadukata)	632.50	1997	2000	622.42	In progress	
54.	Kynshi-II	431.30	Feb'03	Dec'05	324.85	In progress	
55.	Lohit	NA	Dec'96	March 2009	NA	In progress	
56.	Noa Dehing	NA	Dec'96	NA	NA	In progress	
57.	Pagladiya Dam Project	NA	NA	NA	NA	Completed (1992)	1995
58.	Siang Dam Project	NA	NA	NA	NA	Completed	Handed over to NHPC
59.	Simsang	499.00	1997	March 2000	473.49	In progress	
60.	Subansiri Dam Project	NA	NA	NA	NA	Completed	Handed over to NHPC
61.	Tipaimukh Dam Project	NA	NA	NA	NA	Completed (January 1995)	Handed over to NEEPCO
<b>Hydel Projects</b>							
62.	Shella	30.00	Oct'04	Sept 2006	26.77	In progress	
63.	Myntang	30.00	June'04	May 2006	27.41	In progress	
64.	Umkhen	30.00	June'04	May 2006	28.79	In progress	

## Annexure-IV

(Referred to in paragraphs 5.4 and 5.13)

## Status of execution of projects

(` in crore)

Sl. No.	Name of the projects	Date of Approval of DPR by CWC	Estimated cost	Date of start	Scheduled date of completion	Actual expenditure up to March 2009	Present status (percentage of completion)
<b>Drainage Development Scheme</b>							
1.	Amjur	2006	14.15	June'06	March'09	4.50	10
2.	Barbhag	2006	7.23	NA	NA	3.00	40
3.	East of Barpeta	2006	1.34	NA	NA	0.30	20
4.	Harang	1998	30.49	Feb'99	March'04	28.80	95
5.	Jakaichuk	2006	2.96	NA	NA	1.09	50
6.	Jengrai	2006	1.49	NA	Aug'02	1.04	30
7.	Joysagar	2006	2.13	NA	Oct'04	0.01	Work not started
8.	Kailashahar	2006	4.18	NA	Sept'05	0.14	Work not started
9.	Singla	2006	3.54	NA	March'08	0.15	Work not started
<b>Flood control/ Protection Scheme</b>							
10.	Avulsion of Brahmaputra at Dhola Hatighuli Phase-I	NA	10.47	NA	2003-04	21.56	Completed (2003-04)
11.	Avulsion of Brahmaputra at Dhola Hatighuli Phase-II	NA	4.95	NA	2004-05		Completed (2004-05)
12.	Avulsion of Brahmaputra at Dhola Hatighuli Phase- III	NA	8.47	NA	2007-08		Completed (2007-08)
13.	Avulsion of Brahmaputra at Dhola Hatighuli Phase- IV	NA	23.19	NA	NA	...	Work not started
14.	Kushiabil and Durgajan(Phase-I)	NA	0.85	NA	2005-06	0.79	Completed
15.	Kushiabil and Durgajan (Phase-II)	NA	1.80	NA	2007-08	1.60	Completed
16.	Majuli Island (Immediate measures)	NA	6.22	Jan'04	Feb'05	5.92	Completed
17.	Majuli Island Phase-I	NA	56.07	Feb'05	Feb'08	45.83	93



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Sl. No.	Name of the projects	Date of Approval of DPR by CWC	Estimated cost	Date of start	Scheduled date of completion	Actual expenditure up to March 2009	Present status (percentage of completion)
18.	Majuli Island Phase-II & III	NA	128.00	NA	NA	...	Work not started
19.	Nagrijuli Rangia Town of Mukualmuwa/ Barbhag	NA	4.89	NA	2010-11	3.46	Completed
<b>Multipurpose Project</b>							
20.	Pagladiya Dam Project	1995	542.90	NA	Dec'07	25.77	Work not started
<b>Total</b>			<b>855.32</b>			<b>143.96</b>	