

CHAPTER-III

CCO BASED AUDIT

3. Water Resources Department

Although flood is a natural calamity caused under extraneous circumstances, in Assam it is almost an annual affair. The Water Resources Department is associated with flood control activities in Assam and is responsible for implementation of various State and Centrally Sponsored programmes. The National Policy for flood envisaged control of flood through three distinct activities viz. immediate and short term for flood control of urgent nature, medium term and long term measures to control it permanently. During the review period (2006-11), the Department had not taken any long term measures to find a permanent solution to the recurring flood problem and had adopted only immediate and short term measures under which only strengthening and repairing work of embankments were undertaken. There were deficiencies in planning and budgeting. Flow of funds and control over programme implementation was either inadequate or insufficient. Intended benefits of the programmes contemplated through execution of immediate and short term measures were also not forthcoming. Some of the significant audit findings are as under:

Highlights

The Department prepared annual plans based on plan allocation received from the Planning and Development Department instead of a long term perspective plan. There was huge gap between budget allocation and actual release of fund.

(Paragraphs 3.7 and 3.8.3)

The Department spent 13 to 61 per cent of the total annual expenditure at the fag end of financial year during 2006-11.

(Paragraph 3.8.5)

Twelve schemes executed at a cost of ₹45.22 crore were either washed away or became ineffective due to inefficient project management.

(Paragraphs 3.9.1, 3.10.1 and 3.10.2)

An amount of ₹3.51 crore was parked under the head 'Revenue Deposit' to avoid lapse of funds.

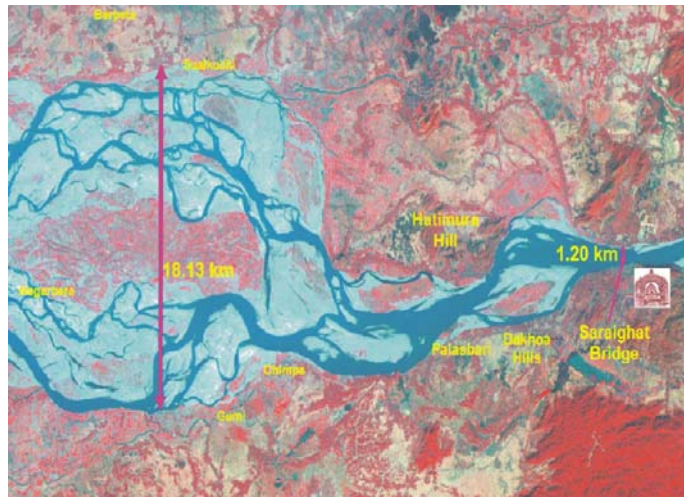
(Paragraph 3.10.3)

Unproductive expenditure of ₹17.31 crore on pay and allowances of idle staff.

(Paragraph 3.11.1)

3.1 Introduction

The mighty Brahmaputra and Barak rivers with about 50 tributaries traverse the State of Assam. The Rastriya Barh Ayog (RBA)¹ identified 31.05 lakh hectares (1980) as flood prone area which is about 40 per cent of the total 78,438 sq Km land area of Assam. During post independence period, Assam faced major floods in 1954, 1962, 1972, 1977, 1984, 1988, 1998, 2002 and 2004. The Brahmaputra transports about 800 million tonnes heavy sediment load and



Course of River Brahmaputra between Guwahati and Barpeta.

Source: Brahmaputra Board, Assam

quite a good amount of this gets deposited in the riverbed. It can be seen from the above photograph that due to heavy siltation, the width of Brahmaputra has increased from 1.2 Km at Saraighat Bridge to 18.13 Km near Barpeta. Increase in width of the mighty river together with sand deposits as islets create multiple channels in the river reducing its velocity. Heavy siltation occurs year after year in the river bed reducing its depth and thereby its carrying capacity of water. This increases incidence of flooding and overtopping/breach of embankments in the rainy season. Along the Brahmaputra River more than 4,200 sq. Km of productive farm land was washed away by bank erosion in the last 40 years and about nine lakh people are estimated to have lost their land, social identity and their backup due to loss of means of livelihood within the rural community² (March 2011).

¹ The Ministry of Agriculture and Irrigation, GOI constituted in July 1976 the Rastriya Barh Ayog (RBA), which studied the entire Gamut of flood problems in the country and submitted its report in 1980 recommending various measures for flood control which was forwarded to all State Government/Ministries and Department in 1981 in the form of guidelines and instructions for implementations of recommendation.

² According to project concept Note of Prof. Dr. W. A. Flugel and Prof. N. Sarma, HOD, Geoinformatics, FS University, Germany and HOD Water Resources Development and Management Department, IIT, Roorkee submitted to GOI in June 2010.

Eminent River Hydraulic Engineers, Professor Dr. Nayan Sharma³ and his associates⁴ had submitted (June 2010) a Project Concept Note⁵ (PCN) to the State Government. According to PCN, prime focus should be installing river training structures that would deepen the channel and reclaim eroded land from the river deploying a combination of bamboo made submerged vanes, Jack jetty and board fencing (Photographs alongside). These techniques are cheaper than construction of spurs and embankments which are capital intensive with high maintenance cost and cannot be installed all along the river. Moreover, these are not geared to train the river banks which are 630 Km long in Assam. This PCN was forwarded (June 2010) to Ministry of Water Resources, Government of India (GOI) and approval is awaited.



**Bamboo made submerged vanes
(Taken from PCN)**



**RCC Jack-Jetty System
(Taken from PCN)**

In Assam, Water Resource Department (WRD) implements multiple schemes to contain flood and Brahmaputra Board was entrusted with the monitoring of the major scheme of FMP⁶. The flood and river bank erosion control activities in Assam started after announcement of National Policy for Flood by the GOI in September 1954. The National Policy for Flood envisaged immediate, short term and long term measures. Emphasis was given by GOA on short term measures and since inception WRD continued to implement short term measures⁷ in Brahmaputra and Barak Valley on the plea that these could be completed quickly with local resources. Losses due to flood in Assam amounted to ₹7,691.34 crore⁸ in 2001-11. During 2006-11, the Department constructed only two Km embankments⁹, length of drainage channels reduced from 856.67 Km to 854.19 Km and no major sluice gate was constructed. Expenditure incurred by Disaster Management Department of GOA during 2006-11 on flood damage repair (₹603.98 crore) and relief (₹225.67 crore) amounted to ₹829.65 crore

³ Head, Water Resources Development and Management Department, IIT Roorke.

⁴ Head of the Department of Geoinformatics, Hydrology and Modeling, Friedrich-Schiller University, Germany.

⁵ Assessing and analyzing the integrated hydrologic-hydraulic system dynamics of the Brahmaputra River basin in NE India.

⁶ FMP: Flood Management Programme launched by GOI in November 2007 with cost sharing pattern of 90:10 between GOI and GOA.

⁷ Raising and strengthening of embankment, anti erosion measures, drainage channels and sluices.

⁸ ₹3 crore (furnished by Revenue and Disaster Management Department, Government of Assam) plus ₹7,688.34 crore (Draft 11th Five Year Plan prepared by Water Resources Department, Government of Assam).

⁹ Length of embankment in 2006 – 4,363 Km.

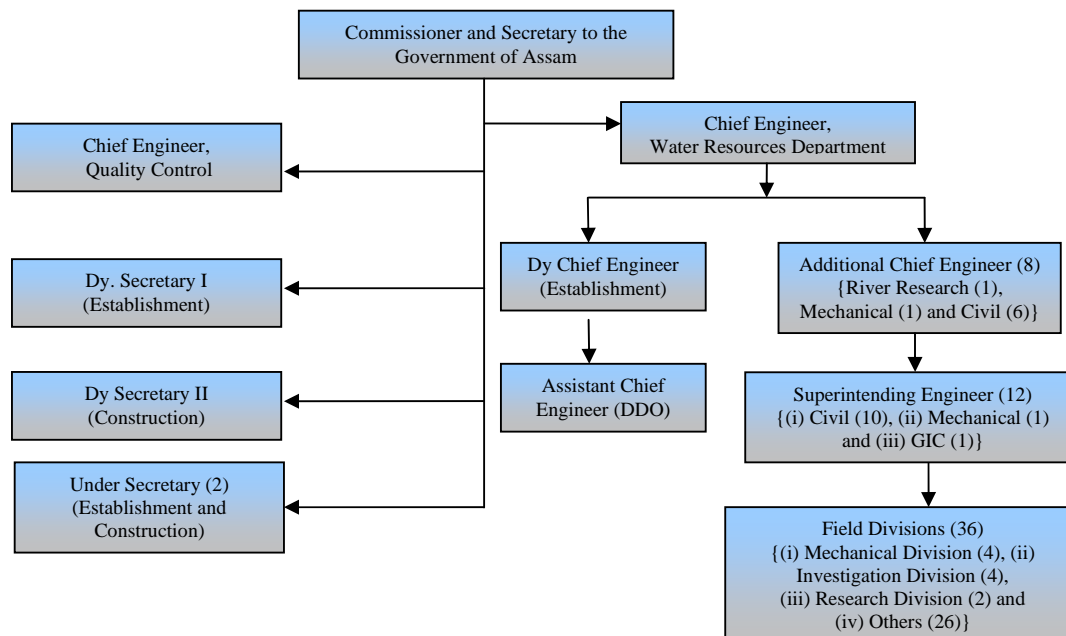
Length of embankment in 2011 – 4,365 Km.

Difference – 2 Km.

(March 2011). Thus, the short term measures adopted by WRD were largely ineffective. The WRD executed only one scheme of raising and strengthening of retirement through technology of Geo-tube at Matmara which was termed as medium term measure. However, this is an isolated project in a location specific area without any application in wide spread area throughout the river basins. The WRD did not take up any long term measures during 2006-11.

3.2 Organizational set up

The organizational set up of Water Resources Department is shown in the chart below:



The administrative head of Water Resources Department is the Secretary to the Government of Assam. The Department has two Chief Engineers, one being the head of the Department and other for Quality Control including Monitoring and Evaluation of various schemes. The Department has eight Additional Chief Engineers, 12 Superintending Engineers and 36 Divisions.

3.3 Scope of Audit

Audit of the office of Chief Controlling Officer (CCO) of the Department was carried out during September 2010 to July 2011 covering the functioning of the Department during the period 2006-11. Records of the Commissioner and Secretary of the Department, two¹⁰, Chief Engineers two¹¹ out of eight Additional Chief Engineers (25 per cent), six¹² out of 12 Superintending Engineers (50 per cent),

¹⁰ (i) Chief Engineer, Water Resources and (ii) Chief Engineer, Quality Control.

¹¹ (i) Additional Chief Engineer, Upper Assam Zone and (ii) Additional Chief Engineer, Barak Valley Zone.

¹² (i) Superintending Engineer (SE), Dibrugarh Circle, (ii) SE, Kokrajhar Circle, (iii) SE, Nagaon Circle, (iv) SE, North Lakhimpur Circle, (v) SE, Sivasagar Circle and (vi) SE, Silchar Circle.

13¹³ out of 36 divisions (36 *per cent*) covering expenditure of ₹612.56 crore (66 *per cent*) out of the total expenditure of ₹932.33 crore on works were test checked. Apart from above, information was also collected from two Investigation Divisions¹⁴, two Mechanical¹⁵ and one River Research Division¹⁶.

3.4 Audit Objectives

The objectives of audit were to assess whether:

- planning and formulation of projects were need based;
- budgetary, expenditure and cash control were adequate and effective;
- operation and project management was adequate and effective;
- human resource and material/stores management were purposeful and adequate;
- monitoring system of the Department was adequate and effective and evaluation of schemes/projects was done.

3.5 Audit Criteria

Audit criteria used for bench marking the audit findings were as under:

- Budget Manual of the Government of Assam.
- Government Rules, Notifications, Guidelines and instructions issued from time to time by the State and the Central Government.
- Departmental code/ Manuals.
- Assam Financial Rules.
- Assam Treasury Rules.
- Guidelines of programmes/ schemes.
- Procedures prescribed for monitoring and evaluation of schemes.

3.6 Audit Methodology

The audit of the Water Resources Department (WRD) commenced with an entry conference in August 2010 with the Chief Engineer (CE), WRD, wherein objectives, criteria and scope of audit including visits of project sites by audit teams were discussed. Out of 36 Divisions, 13 (36 *per cent*) were selected on random sampling method. The audit party also checked records and collected information from the Finance Department and Planning and Development Department. Fifty one out of 199

¹³ (i) Baksa, (ii) Dhemaji, (iii) Dhakuakhana, (iv) Dibrugarh, (v) Goalpara, (vi) Guwahati East, (vii) Kokrajhar, (viii) Karimganj, (ix) Mangaldoi, (x) North Lakhimpur, (xi) Silchar, (xii) Sivasagar and (xiii) Tezpur Division.

¹⁴ (i) Middle Assam Investigation Division and (ii) Lower Assam Investigation Division.

¹⁵ (i) North Lakhimpur Mechanical Division and (ii) Guwahati Mechanical Division.

¹⁶ Guwahati River Research Division.

schemes pertaining to sampled Divisions were also test checked. Photographic evidences were collected during field visit of the sampled Divisions. Exit conference was held on 15 November 2011 with Secretaries to the Government of Assam, Water Resources Department and Finance Department wherein the audit findings and recommendations were discussed. Replies of Chief Engineer/GOA wherever received have been suitably incorporated in the report. In the exit conference (15 November 2011), the Department assured to sent para-wise replies, which was, however, not received (November 2011).

Audit Findings

Significant audit finding noticed in course of CCO based audit are discussed in the succeeding paragraphs.

3.7 Planning

Planning is an integral part of programme implementation. Plan process requires that necessities are prioritized setting forth periodical targets to be achieved by implementing agencies.

Under Flood Management Programme, containment of flood as contemplated in the National Policy for flood 1954 comprised of long term, medium term and short term measures. Under long term and medium term measures, WRD was to take up flood control activities as envisaged in the Master Plan of different rivers prepared by Brahmaputra Board, a statutory Central Government organization. WRD had so far received 35 Master plans from the Board during 1997 to 2010. Master plans recommended long term, effective and reasonably permanent solution to the flood problem in the two valleys through construction of some large storage reservoirs in the upper reaches of the main rivers and some of their tributaries and removal of silt and river training measures which were not undertaken by the Department. Regarding large storage reservoirs recommended in the Master plan, the Chief Engineer (WRD) stated (April and November 2011) that construction of reservoir is a debatable issue because of inadequate flood cushioning, unsystematic reservoir operation policy, siltation, effect on environment and adverse downstream impact. He also stressed the need for availability of sufficient fund and cooperation of the neighboring states for construction of storage reservoirs. Thus, long term and medium term measures, though envisaged in the Master Plans, were not implemented. Other measures included in the Master plan were short term measures and during the period 2006-11, 198 short term schemes were undertaken by WRD.

Government of India had formulated the “National Water Policy 2002” to be followed by all States, which were to come up with their own State policies. After a gap of six years, GOA, through WRD, constituted two statutory bodies (August 2008) namely “Assam State Water Resources Council” (ASWRC) and “Assam State Water Board” (ASWB) to formulate State Water Policy, the statutory bodies had not submitted any water policy (August 2011). Assam Science Technology and Environmental Council (ASTECC) submitted (June 2009) one “Draft State Water Policy” to the State

Government. Decision of the Government on its acceptance and adoption is awaited (November 2011).

WRD prepared annual plan incorporating schemes for short term and immediate measures on the basis of budget allocation received from the Planning and Development Department. This indicates annual plan allocation was on the basis of availability of resources, rather than need based, without fulfilling the requirements at implementation level. There was huge gap between plan allocation and actual release. Consequently, even the short term annual plan made on the basis of plan allocation could not be translated into actual achievement due to short release of funds. Consequently, annual planning was practically ineffective. Many short term measures were implemented in a haphazard manner and the improvements made were washed away as evidenced in the recommendation of the Committee on existing embankment system of Brahmaputra and Barak valley (September 2008) wherein it was stated that 194 breaches aggregating 15,670 meters had occurred in 2007-08 resulting in mammoth damage to the extent of ₹1,444.24 crore towards crop, land, dwelling houses etc.

3.8 Financial control

3.8.1 Preparation of budget

Budget Manual of GOA stipulates that Budget Estimates (BEs) are to be consolidated by the controlling officers based on the proposals received from the subordinate offices and should be as accurate as possible. Audit scrutiny of available records revealed that BEs were prepared after receiving plan allocation of respective years from the Planning and Development Department without taking cognizance of the proposals of unit offices. Only salary component was incorporated in BEs after obtaining proposals from the units.

3.8.2 Funding pattern

Funding of the plan schemes implemented in special category States like Assam is 90 *per cent* Central assistance and 10 *per cent* State share. Hundred per cent central assistance was provided in respect of schemes implemented under (1) Additional Central Assistance (ACA) (2) Joint River Commission and (3) Eleventh Finance Commission awards. In addition, National Bank for Agriculture and Rural Development (NABARD) provides loan assistance to cover 95 *per cent* of the cost of schemes implemented under Rural Infrastructure Development Fund (RIDF). Rest five *per cent* is to be funded by the State.

3.8.3 Budget outlay and expenditure

The position of budget allocation and expenditure incurred there against in the Department during 2006-11 is shown in Table -1.

Table-1: position of budget allocation and expenditure incurred during 2006-11
(₹ in crore)

Year	Budget allocation	Amount drawn	Savings (-) Excess (+) (Percentage)
2006-07	150.77	135.73	15.04 (10)
2007-08	212.40	92.68	119.72 (56)
2008-09	489.46	178.51	310.95 (64)
2009-10	1090.20	288.65	801.55 (74)
2010-11	651.33	237.91	413.42 (63)
Total	2594.16	933.48	1660.68 (64)

Source: Departmental records.

There were short release of budget allocation by GOA in all the years (2006-11) ranging between 10 and 74 per cent. During 2006-07, out of ₹135.73 crore drawn by the Department, ₹134.58 crore only could be spent, resulting in retention of ₹1.15 crore in hand. Financial control system exercised through budget had no significance in the Department, as 64 per cent of budget allocation was not released. Insufficient flow of funds adversely affected the implementation of schemes as discussed under programme implementation (Paragraph 3.9.1.1(i), 3.9.1.2(i)).

In reply Chief Engineer stated (November 2011) that before sanction of any scheme by GOI it is mandatory to have provision in budget. Therefore, enhanced budget was prepared. The reply is not tenable because 64 per cent saving rendered the budget allocation unrealistic. Regarding non-surrender of savings, the Department stated (November 2011) in exit conference that funds were released by Finance Department mostly in the month of March and hence could not be surrendered in time.

3.8.4 Un-reconciled expenditure

To enable the Controlling Officer of WRD to exercise effective control over expenditure and to keep it within the budget grants besides ensuring accuracy of accounts, Financial Rules stipulate that expenditure recorded in their books be reconciled by them every month during the financial year with those recorded in the books of the Accountant General. However, WRD Assam did not reconcile their monthly/annual expenditure with those booked by the Principal Accountant General (A&E), Assam during 2006-11. As a result, there was a difference of ₹24.71 crore between total expenditure projected by Department (₹932.33 crore) and total expenditure incurred (₹907.62 crore) as per Appropriation Accounts (2006-11). The Department stated (November 2011) that necessary steps would be taken for reconciliation of departmental expenditure figures with that booked by PAG (A&E).

Similarly, Para 22.3.1 of Central Public Works Account Code stipulates that Divisional Officers are required to reconcile their figures and submit Form 51 showing therein figures of remittances and drawal of money by cheques with complete analysis of differences in each month to rule out short remittances, fraudulent drawals and misclassification in the records of the treasury. The Chief Engineer attributed the reason for arrear in reconciliation to non-cooperation of the

treasury. The Department also failed to take effective and timely action to reconcile the draws and remittances with the treasury.

Only one¹⁷ out of 13 test checked Divisions reconciled their figures with treasury up to May 2010 and in other twelve Divisions, reconciliation was in arrears for 10 months to 24 years. Two Divisions¹⁸ did not take initiative for reconciliation since inception. Audit scrutiny revealed substantial differences (between the treasury records and divisional records) in expenditure (₹1.01 crore) and remittances (₹ two lakh) in five test checked Divisions¹⁹. As such fraud and misappropriation of Government money during aforementioned period could not be ruled out.

3.8.5 Rush of expenditure at the fag end of financial year

According to Assam Treasury Rules, rush of expenditure in the closing month of the financial year should be avoided. Contrary to this, during 2006-11, the Department spent ₹423.15 crore (13 to 61 *per cent*) at the fag end of the financial year out of the total expenditure of ₹932.33 crore²⁰.

This indicates imprudent financial management and lack of appropriate control in utilization of plan funds. Ineffective financial management also led to execution of schemes in unplanned manner and the Department failed to achieve the targeted objectives as discussed under Programme Implementation (paragraph 3.9). The Chief Engineer stated (November 2011) that rush of expenditure in March was due to release/receipt of fund at the fag end of each financial year.

3.8.6 Fund Management

3.8.6.1 Retention of fund received on loan bearing interest

National Bank for Agriculture and Rural Development (NABARD) provides loan assistance to cover 95 *per cent* of estimated cost of schemes sanctioned by them under Rural Infrastructure Development Fund (RIDF) and balance 5 *per cent* is to be funded by the State Government. The GOA is liable to pay interest on loan at 6.50 *per cent* per annum. Under RIDF, GOA received loan of ₹174.76 crore during 2006-11 for implementation of 33 schemes, of which, ₹157.71 crore was released to

¹⁷ Baksa Water Resources Division.

¹⁸ (i) Mangaldai Division: January 1986 and (ii) Dhakuakhana Division: May 2008.

¹⁹ (i) Dhemaji, (ii) Goalpara, (iii) Guwahati East, (iv) Silchar and (v) Tezpur.

Year (1)	Total Expenditure (3)	Expenditure incurred in March (4)	Percentage (5)
2006-07	134.58	66.11	49
2007-08	92.68	12.47	13
2008-09	178.51	108.78	61
2009-10	288.65	149.64	52
2010-11	237.91	86.15	36
Total	932.33	423.15	

Source: Departmental records.

the Department retaining ₹17.05 crore²¹ with GOA. The Chief Engineer stated (November 2011) that sanctioning process by GOA takes time for which fund could not be utilized in time.

Non-release of loan assistance during 2006-09 by the GOA resulted in liability of ₹0.31 crore towards interest payment, besides decreasing the flow of funds that retarded the progress of schemes.

3.8.6.2 Short release of fund

Government of India released ₹736 crore (2006-11) to the State Government for implementation of 139 Centrally Sponsored Schemes, of which State Government released ₹620.13 crore (84 per cent) to the Department leaving a balance of ₹115.87 crore (₹736.00 crore - ₹620.13 crore) as of March 2011.

Similarly, out of available funds of ₹620.13 crore the Department spent ₹373.33 crore (60 per cent). As such, there were unreleased/unspent funds of ₹362.67 crore (₹115.87 crore + ₹246.80 crore) as of March 2011.

Reasons for non-release of funds were not stated by the Department. Insufficient flow of funds retarded the progress of schemes and denied the intended benefits from accruing as discussed in Paragraph 3.9 under programme implementation.

3.8.6.3 Avoidable expenditure

The Department incurred an expenditure of ₹42.43 lakh towards payment of interest accrued on outstanding land acquisition cost and contractors bills amounting to ₹49.87 lakh as per verdict of the Hon'ble court. Details are shown in *Appendix -3.1*.

The Department placed demands for clearance of liability as a matter of routine but did not pursue the matter with Government vigorously for release of funds. Thus, due to lack of initiative of the Department there was an avoidable loss of ₹42.43 lakh towards delayed payment of liabilities arising out of court orders which could have been utilized on other developmental activities.

3.8.6.4 Loss of Government revenue

The contractors willing to have their names registered were required to deposit registration fee of ₹3,500 (General category)/₹2,000 (Reserved category) to the Government. Audit scrutiny revealed that the Superintending Engineer, North

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(₹ in crore)

Year	Loan received	Funds released	Funds retained	Period of retention	Interest to be paid on retained fund @ 6.50 %
2006-07	43.67	43.16	0.51	3 years	0.10
2007-08	32.40	31.20	1.20	2 years	0.16
2008-09	71.67	70.96	0.71	1 year	0.05
2009-10	9.76	9.76	-	-	-
2010-11	17.26	2.63	14.63	-	-
Total	174.76	157.71	17.05		0.31

Source: Information furnished by the Department.

Lakhimpur allowed 61 contractors to register their names under SE, North Lakhimpur without depositing required fees amounting to ₹1.45 lakh during 2009-10 resulting in loss of revenue to that extent apart from extension of undue benefit to the contractors as shown in Table-2.

Table – 2: Non-realization of registration fee

Sl. No.	Category	Rate of registration fee (in ₹)	No. of contractor	Amount due (in ₹)
1.	General	3,500	15	52,500
2.	Reserved	2,000	46	92,000
Total			61	1,44,500

Source: Departmental records.

The Chief Engineer accepted (November 2011) the fact and assured to realize the money.

3.8.6.5 Undue Financial aid to the contractor

(a) As per conditions of the agreement made with the contractor in connection with a scheme “Raising and strengthening to Brahmaputra dyke from Sissikalghar to Tekeliputa including closing of breach by retirement and anti-erosion measures” one sampled Division²², paid mobilization advance of ₹29.65 crore (May to June 2009) against bank guarantee of ₹29.99 crore to a contractor²³. As per conditions of contract, bank guarantee was to be reduced progressively with the adjustment of advance. The Divisional Officer however released the bank guarantee (₹29.99 crore) in between August 2009 and February 2010 after adjusting only ₹5.81 crore (20 per cent of the mobilisation advance) violating the condition of the contract. This has resulted in undue financial aid to the contractor. The Chief Engineer accepted (November 2011) the audit observation and added that up to October 2010, ₹10.96 crore was adjusted against advance of ₹29.65 crore.

(b) During 2006-11, statutory deductions (labour welfare cess, security deposit, value added tax, forest royalty and land compensation) amounting to ₹6.81 crore²⁴ was not realized from contractors in 13 sampled divisions. Reasons for non-recovery were not intimated. Thus, failure of the Divisional Officers to effect necessary deductions resulted in undue financial aid to the contractors.

3.8.6.6 Irregular drawal of fund through self cheque and subsequent disbursement through bankers’ cheque to the contractor

Government of Assam, Finance Department instructed (March 2006) all working Departments²⁵ not to draw funds allotted through Fixation of Ceiling (FOC) from the

²² Dhakuakana Water Resources Division.

²³ M/S Emaskiara.

²⁴ Security Deposit – ₹2.85 crore, Forest Royalty - ₹0.37 crore, Recovery of Land Compensation - ₹2.79 crore, Labour Welfare Cess – ₹0.77 crore and VAT – ₹0.03 crore.

²⁵ (i) Public Works Department, (ii) Public Health Engineering Department, (iii) Irrigation Department and (iv) Water Resources Department.

Government by self cheque in excess of ₹5,000 and desist from keeping the same as Bankers cheque/ Bank draft or in the form of deposit in the local treasury.

Scrutiny of the records revealed that two test checked Divisions²⁶ had drawn a sum of ₹16.78 crore through self cheques and subsequently disbursed the amount to the contractors.

Thus, by drawing funds through self cheques and subsequent payment through Bankers' cheques the Divisional Officers concerned violated the Government directives. This is an instance of failure of internal control and is fraught with the risk of misuse/mis-utilisation and even misappropriation of funds. Accepting the audit observation, the Chief Engineer stated (November 2011) that instructions had been issued to the concerned divisions for taking necessary action.

3.8.6.7 Unauthorized expenditure

Rule 270 of Assam Financial Rules provides that any anticipated/actual savings on a sanctioned estimate cannot, without special authority, be applied to carry out additional work not contemplated in the original project or fairly contingent on its actual execution. Savings due to the abandonment of a substantial part of any project sanctioned by an authority not lower than the Provincial Government are not to be considered as available for work on other sections.

Two sampled Divisions²⁷ executed additional works by preparing nine working/sub-estimates at a cost of ₹1.53 crore out of savings against five schemes sanctioned for ₹31.51 crore by the State Government. The sub-estimates prepared out of savings, as above, were sanctioned by the CE/Additional CE and works were executed accordingly. The Division incurred an expenditure of ₹1.23 crore and created liability of ₹30 lakh against these works disregarding the provisions of the Rules *ibid*.

3.9 Programme Implementation

3.9.1 Implementation of Centrally Sponsored Schemes (CSS) and State Sector Schemes (SSS)

During 2006-11, 199 (CSS-190 and SSS-9) major schemes were taken up by the Department at a total cost of ₹1,208 crore. Programme wise details of schemes are shown in the Table-3.

²⁶ (i) Karimganj Water Resources Division drawn and disbursed between July 2005 and February 2011 – ₹11.59 crore. (ii) Silchar Water Resources Division drawn and disbursed between February 2010 and November 2010 – ₹5.19 crore.

²⁷ (i) Baksa Water Resources Division and (ii) Sivasagar Water Resources Division.

Table – 3: Implementation of Centrally Sponsored and State Schemes

Sl. No.	Programme	Schemes taken up	Amount of administrative approval accorded by GOA in respect of 197 schemes	Schemes completed	Expenditure (as of 31/3/2011)	Ongoing schemes/schemes not started	₹ in crore)	
							Expenditure (as of 31/3/2011)	Total liability (as of 31/3/2011)
1	Flood Management Programme (FMP)	85	791.05 (for 83 schemes)	67	373.13	14/4	52.55	5.08
2	Additional Central Assistance (ACA)	54	176.06	51	131.19	3	4.50	2.31
3	Rural Infrastructure Development Fund (RIDF)	39	182.17	39	175.77	NIL	NIL	0.73
4	Eleventh Finance Commission (EFC)	9	20.03	9	14.29	NIL	NIL	0.89
5	Joint River Commission (JRC)	1	1.83	1	0.75	NIL	NIL	0.24
6	North Eastern Council aided schemes (NEC)	2	18.67	1	6.88	0/1	NIL	6.83
7	State Plan	9	18.55	9	16.53	NIL	NIL	7.99
TOTAL		199²⁸	1208.36	177	718.54	17/5	57.05	24.07

Source: Information furnished by the department.

It can be seen from Table-3 that 177 (89 per cent) out of 199 schemes were completed at a reported expenditure of ₹718.54 crore with a committed liability of ₹24.07 crore payment for which is yet to be made. Of the rest 22 incomplete schemes, administrative approval was accorded in respect of 20 schemes at a cost of ₹268.60 crore and balance two schemes were not yet sanctioned by GOA. Five schemes²⁹ were not started and in 17 schemes expenditure incurred amounted to ₹57.05 crore (approved cost ₹215.57 crore) with physical progress ranging from 25 to 97 per cent. The Department could not produce the Detailed Project Reports (DPR), sanction orders of GOI and targeted schedule of completion of schemes specified by GOI.



Incomplete ramp of Rangmahal garh (14 December 2010)



On going dowl bund of Bagjap Ph II (17 December 2010)

²⁸ Administrative approval of 197 schemes accorded for ₹1,208.36 crore. Administrative approval of two schemes not yet accorded.

²⁹ 1. R/S to Puthimari embankment both bank from RG Rly line (from Ch 21st Km to 36th Km on R/B and from Ch 18th Km to 35th Km on L/B).

2. Protection of Gakhirkhaity and its adjoining areas from the erosion of river Brahmaputra (construction of land spur and bull head).

3. Construction of retirement of 19th Km of B/dyke from Sissikalghar to Tekeliphuta near Matmara (FMP).

4. Construction of land spur at 19th Km of B/dyke from Sissikalghar to Tekeliphuta Ph I (FMP).

5. Construction of Roumari village and its adjoining area from erosion of river Janali in Kokrajhar District (NEC).

During test-check of 13 sampled Divisions, audit visited work sites of 24 schemes along with departmental officers which revealed that two schemes³⁰ (photograph pre-page) under FMP which were reported to have completed by the Department were actually not completed. In addition two more schemes though stated to be completed were not actually completed as discussed in paragraph 3.9.1.5(i) and 3.10.2(i). Thus, information furnished by the Department did not reflect the actual position of the schemes and 177 schemes (out of 199 schemes) reported as completed was not correct. In the exit conference, the Department assured that matter would be investigated and intimated to audit.

Further, it can be seen from **Appendix-3.2** that 24 schemes under various programmes of sampled Divisions sanctioned at ₹93.06 crore during 2006-11 were taken up on priority basis with stipulation to complete the work within a period ranging from 30 to 90 days (22 schemes) and two in 540 days. As of March 2011, ₹58.31 crore was spent against these schemes. The schematic works were divided into 9 to 112 groups and 10 to 271 contractors were engaged in each group for immediate implementation of these schemes. However, Audit scrutiny disclosed that 20 out of 24 schemes were completed at an expenditure of ₹52.46 crore after delay of three to twenty six months beyond stipulated completion period of 30 to 90 days from the date of issue of work orders as of March 2011. Further, out of 20 completed schemes, 13 schemes were delayed by 12 to 26 months from the stipulated period of completion. Remaining four schemes were under progress after expiry of stipulated period by 7 to 23 months with physical progress ranging from 38 per cent to 98 per cent. Thus it was obvious that construction work of the schemes, which required additional working days of six months or above beyond stipulated period of completion, had continued during monsoon also. The underlying reasons for dividing each work into nine to 112 groups and engaging 10 to 271 contractors in each group with stipulation to complete the works within 90 days, was to ensure completion of the works before monsoon because the large volume of water carried by Brahmaputra on monsoon season would wash away already executed half done work. The standard and life span of the schemes executed during monsoon was therefore doubtful. The Department had also its own stipulation that work should not be executed during monsoon (i.e., from 15 May to 15 October). The Public Accounts Committee (PAC) recommended in its 119th Report to execute flood control works in dry season and not in monsoon season. Washing away of two works executed during monsoon as test checked are discussed under paragraph 3.10.2 (ii & iv). In view of such eventuality the completion of 177 schemes seems doubtful.

The Chief Engineer stated (April 2011) that the works undertaken for flood control were of immediate and short term nature. Only one work was undertaken as a medium

³⁰ (i) Raising and strengthening to flood embankment along left bank of Kolong river from Bagjap to Bogibari (Chainage: 17th Km to 28th Km) Phase –II (₹3.98 crore spent as of March 2011) and (ii) Protection of Rangmahal and its adjoining area from the erosion of river Brahmaputra (₹4.09 crore spent as of March 2011).

term measures using Geo-tube technology at Matmara under Dhakuakhana Water Resources Division. Audit scrutiny of records also disclosed that out of 199 schemes undertaken barring one mid term scheme, 71 *per cent* (141 works) related to raising and strengthening of existing embankments/protection works and rest 29 *per cent* (57 works) were of the nature of anti-erosion works. As such, almost all the schemes were of immediate and short term nature. Consequently, the sustainability of schemes executed were doubtful which was also reflected in washing away of certain works immediately after construction (Para 3.9.1.1(iii), 3.9.1.6 (i), 3.10.2 (i), (ii) & (iv)) without giving any permanent respite to the people from floods.

3.9.1.1 Flood Management Programme (FMP)

Government of India launched Flood Management Programme in November 2007 for critical flood control and river management works in the entire country. River management, flood control, anti-erosion, drainage development, anti-sea erosion, flood proofing works, flood prone area development and restoration of damaged flood control/management work were included in the programme. Funding pattern for Central assistance for Special Category States was 90 *per cent* (Central share): 10 *per cent* (State Share). The State Government was to specify the time frame for completion of the scheme, ensure inclusion of the scheme in the State Plan, make requisite budget provision and acquisition of land required under the scheme (at their own cost) and submit a certificate to this effect while sending request for release of funds.

In Assam, WRD was implementing the programme while Brahmaputra Board was entrusted with the monitoring of the scheme. They would monitor the physical and financial progress of schemes and recommend release of Central assistance to GOI. Performance evaluation of the completed works was to be conducted (November 2011) by independent specialized/professional agencies having expertise in related field.

During 2008-11, 85 schemes were sanctioned by GOI at a total cost ₹817.82 crore, of which, administrative approval to 83 schemes was accorded by GOA for ₹791.05 crore against the sanctioned cost of ₹804.49 crore reducing quantity of items and rates. GOA had thus submitted inflated estimates to GOI and subsequently reduced the cost of scheme by ₹13.44 crore.

Out of 83 schemes, 67 (81 *per cent*) schemes were reported by WRD to have been completed (March 2011) at a cost of ₹373.13 crore. Two schemes³¹ sanctioned

31

(₹in crore)

Sl. No.	Name of scheme	Year of sanction	Sanctioned cost	Central Share released in 2008-09
1	Construction of retirement at 19 th KM Brahmaputra Dyke from Sissikalghar to Tekeliphuta near Matmora	2008-09	6.58	1.37
2.	Construction of land spur at 19 th KM of 19 th KM Brahmaputra Dyke from Sissikalghar to Tekeliphuta PH-I	2008-09	6.75	1.41
Total			13.33	2.78

Source: Departmental records.

(2008-11) by GOI at a cost of ₹13.33 crore were not yet administratively approved by GOA and not yet started although ₹2.78 crore being the first installment of Central share in respect of these two schemes was released (2008-09) by GOI. Remaining 14 schemes are ongoing with an expenditure of ₹52.55 crore.

In 13 sampled Divisions, 49 schemes were sanctioned (2008-11) at a cost of ₹507.33 crore of which 41 schemes were reported to have been completed at a cost of ₹251.53 crore, six schemes were reported to be ongoing and execution of two schemes had not commenced (March 2011). However, audit scrutiny revealed that two schemes³² out of reported 41 were actually ongoing. Progress of six ongoing schemes ranged from 25 *per cent* to 91 *per cent*. Nine out of 39 (41 schemes minus 2 schemes) schemes were completed within the stipulated period (March 2010) and delay in completion in respect of balance 30 schemes ranged from seven to 24 months.

Irregularities in implementation of five schemes noticed during test-check are discussed in succeeding paragraphs.

(i) Extension of Goalpara town protection embankment from erosion of river Brahmaputra (Chainage 1,340 M to its downstream)

As per para 4.5 of the Guidelines for providing Central assistance under Flood Management Programme (2007-12) the State Government should ensure acquisition of land along with a certificate to this effect while sending request for release of fund. Scrutiny of the records revealed that the Goalpara town protection embankment constructed in 1965-66 was breached in 1999 causing recurrent damages to property and misery of inhabitants every monsoon. For protection of the town, the above work was sanctioned by GOI (2008-09) at a cost of ₹7.45 crore. Administrative approval of the scheme was accorded by GOA for ₹7.45 crore in December 2008. The work was awarded (January/February 2009) to 110 contractors for completion within 60 days. Works commenced in March 2009 and after achieving physical progress of 36 *per cent*, execution of work was suspended by the Department (May 2010) due to non receipt of funds required for acquisition of land. The Department spent ₹2.05 crore (March 2010) mainly on procurement (between March 2009 and May 2009) of wire netting sheets and boulders worth ₹1.31 crore which are lying idle since procurement.

Thus, taking up the project before acquisition of required land led to idle outlay of ₹2.05 crore, besides denial of benefit of the scheme to the intended beneficiaries.

³² (i) Raising and strengthening flood embankment along left bank of Kolong from Bagjap to Bogibari Ch. 17th Km to 28th Km Phase – II and (ii) Protection of Karimganj town from river Kushiya left bank at Kuripatti area.

(ii) Raising and strengthening of flood protection in and around Patharkandi by the River Longai Phase-I Right Bank

The scheme, “Raising and strengthening of flood protection in and around Patharkandi by the river Longai phase – I (R/B)’ was sanctioned (July 2008) by GOI for ₹7.04 crore and GOA accorded administrative approval in January 2009. The scheme envisaged raising and strengthening of existing embankment by earth work along with bank stabilization and anti crossing work with river boulder (i.e. to drain out accumulated flood water from the country side as well as prevention of entry of flood water of river Kacharkhal through sluice gate). After inviting tender, work orders for earth work for raising and strengthening of embankment and bank stabilization work (partially) was awarded to 222 contractors (February 2009) for completion within 90 days. The work commenced in February 2009 and achieved overall physical progress of 81 *per cent* in March 2011 with an expenditure of ₹1.63 crore. Work order for construction of RCC sluice gate over Kacharkhal along with earth work for raising and strengthening with bank stabilization work (residual part) was issued to another contractor for ₹2.59 crore (February 2009) for completion within 18 months (August 2010). Audit scrutiny revealed that the contractor executed a meagre amount of earth work and bank stabilization work worth ₹43.15 lakh against which ₹16.86 lakh was paid (March 2010) with no physical progress of sluice gate (December 2010). Further, scrutiny revealed that as per site inspection report (12 December 2010) of the Chief Engineer, Quality Control, WRD, the contractor was instructed to execute four new box type culvert in lieu of proposed three box type culvert in the existing sluice site and the modified structural drawings and corresponding relevant papers were handed over to the contractor (on 27 December 2010) four months after the stipulated date but the contractor surrendered the work. The work was rescinded (January 2011) at the risk and cost of the original contractor and awarded to another contractor (January 2011) at ₹1.20 crore.

Thus, the work which was stipulated to be completed within August 2010, remained incomplete, 15 months after the due date of completion due to weak supervision and control, denying the benefits to the beneficiaries.

(iii) Protection of Karimganj town from the erosion of the river Longai at Longaighat area etc

Similarly, another scheme namely “protection of Karimganj town from the erosion of the river Longai at Longaighat area etc.” was sanctioned by the GOI at a cost of ₹5.98 crore and GOA accorded administrative approval in January 2009. The scheme envisaged bank protection work with construction of sluice over Katakhal. After inviting tender, the bank protection work was allotted to 144 contractors (February 2009) for completion within 90 days. The work commenced during the same month and achieved physical progress of 90 *per cent* as of March 2011 with an expenditure of ₹1.24 crore. Audit scrutiny revealed that the work, construction of sluice gate over

Katakhal was awarded to one contractor for ₹2.41 crore in March 2009 with the stipulation to complete the work within 18 months (September 2010). The contractor was paid secured advance of ₹14.55 lakh for procurement of 57.25 quintal steel materials in February 2010 against due amount of ₹1.44 lakh (57.25 quintal x ₹2,520/-). Thereafter, the contractor stopped (February 2010) the work after achieving physical progress of 1 to 2 per cent in earth work only. Ultimately the work was rescinded (January 2011) at the risk and cost of the original contractor with no physical progress of sluice gate work and allotted (January 2011) to another contractor at a cost of ₹1.23 crore.

As per guidelines, Brahmaputra Board is the sole monitoring agency for the FMP schemes. But the Board did not monitor the work as of June 2011. Absence of monitoring and proper planning was also a factor towards delay in completion of the scheme. Thus, improper project management delayed the benefit to the targeted beneficiaries after incurring an expenditure of ₹1.39 crore (₹1.24 crore + ₹0.15 crore).

(iv) Raising and strengthening of Brahmaputra Dyke from Khormoza to Beldubi (Chainage 0 to 17 Km and from 26.30 Km to 35 Km)

To avert large scale devastation in embankment during high flood of the Brahmaputra river at Goalpara one scheme under FMP “Raising and strengthening of Brahmaputra dyke from Kharmuja to Beldubi (Ch 0 to Ch. 17 Km and from Ch 26.30 km to Ch 35 km) was approved by the GOI (2008-09) for ₹7.48 crore. The scheme commenced in February 2009 prior to accordance of technical sanction (July 2009) and the work was completed in March 2011 against target date of completion (April 2009). During execution of the work the embankment was breached (September 2010) in about 80 meter in length from Ch 12,770 m to Ch 12,850 m. Total expenditure on the scheme excluding liabilities was ₹2.14 crore (March 2011).

Test-check of the records revealed that the Department projected another work under CRF and simultaneously executed work from Ch 11 Km to 14 Km on the same embankment during May 2010 to August 2010. The scheme was sanctioned by the Revenue Department in March 2010 for ₹1.76 crore and the value of work done was ₹1.76 crore. During execution severe bank erosion occurred for a length of 900 m covering upstream and down stream of Ch 12,800 m of the embankment and to arrest the same, huge boulder works was carried



Eroded newly constructed embankment



Eroded (breached) newly constructed embankment

out though there was no provision of boulder works in the estimate. There was no instruction of any authority to carry out boulder works. Quantity of boulders and source of collection of boulders could not be explained to audit.

During field visit (September 2010) audit could not find the boulders as well as launched bamboo cribs (Photographs above).

Simultaneous execution of two separate works of identical nature under two separate programmes in the same chainage depicted deficiencies in internal control mechanism and may lead to misappropriation of fund.

In view of above, the executed scheme worth ₹1.76 crore under CRF was doubtful and the Executive Engineer of the Division was responsible for the simultaneous execution of two schemes on the same chainage of the embankment. Reasons for this was not stated though called for.

(v) Immediate measure to Kakoi Right Bank from Lilabari T.G. to Kadam including breach closing with Anti Erosion measures 2007-08

The right bank of Kakoi dyke was breached at 1st Km in July 2007 due to overtopping of flood water. An estimate of the work “Immediate measure to Kakoi right bank embankment from Lilabari T.G. to Kadam (breach closing at 1st k.m. including anti erosion measures) 2007-08” for ₹64.23 lakh had been framed and submitted by the Deputy Commissioner (DC), Lakhimpur in August 2007 for approval of the Revenue Department. However, in September 2007 another breach occurred at 1st Km. due to fresh wave of flood. In view of above, another estimate of ₹42.20 lakh was prepared for closing of breach by construction of retirement and launching of RCC porcupine to divert the course of river Kakoi to its original course and the same was submitted for approval of the Revenue Department by the DC Lakhimpur in the month of September 2007. Immediately after submission of the above estimate under Calamity Relief Fund, two major floods occurred and the dyke at 1st Km was further damaged in the month of September and October 2007. Consequently a recast estimate of ₹106.67 lakh was framed with provision of breach closing by earth work (retirement) including anti erosion measures and cofferdam, which was approved by the Chief Engineer, Water Resources.

Sanction to the project by Revenue Department was accorded in July 2008 and technical sanction was accorded in June 2009 under Calamity Relief Fund (CRF). The work was started in March 2008 and completed in May 2008. Total expenditure of ₹96 lakh was incurred on receipt of fund from the DC Lakhimpur debiting the same to CRF for 2010-11.

Audit scrutiny revealed that the cofferdam and RCC porcupine screen was constructed at 1st Km at the cost of ₹0.52 crore (₹0.20 crore + ₹0.32 crore) to divert the river course to the original course of river Kakoi. Further scrutiny of records disclosed that on



WASHED AWAY COFFER DAM OF KAKOI RIGHT BANK (September 2010)

13 August 2009 there was sudden rise of water level and the coffer dam was washed away due to thrust of high spate and a new course avulsed (Photograph above). The Audit party along with the Sub Divisional Officer Lakhimpur WR Sub-division physically visited the site on 29 September 2010 and found the river Kakoi flowing in the new course. It was thus seen that the construction of cofferdam and launching of RCC porcupine screen did not serve the purpose for which it was constructed and as such entire expenditure of ₹0.52 crore became wasteful.

3.9.1.2 Additional Central Assistance (ACA)

During 2006-11, total 54 schemes were sanctioned by GOI under the programme. GOA accorded administrative approval to these schemes at a cost of ₹176.06 crore. Of these 54 schemes, 51 schemes (approved cost ₹158.69 crore) were completed at a cost of ₹131.19 crore and committed liability of ₹2.31 crore. The rest three schemes sanctioned (approved cost ₹17.36 crore) during 2009-10 remained incomplete (March 2011) after incurring an expenditure of ₹4.50 crore. Irregularities in implementation of one scheme noticed during test-check is discussed below.

(i) Drainage of Patidarang and its adjoining low lying area including reconstruction of Sluice Culvert at 17 Km of Brahmaputra Dyke

Back flow of river Diggoz causes inundation of Patidarang area in Mangaldai district resulting in extensive damage to standing crops and miseries to the people. The scheme was conceived in 1997 to reduce the drainage congestion of low lying Patidarang area which remains inundated for six months of a year as various tributets traverse this area, by constructing drainage channel and sluice. GOI approved (October 1997) the scheme at a cost of ₹7.54 crore to be provided as Additional Central Assistance (ACA) and stipulated that it be completed within three years. The work commenced during 1999 though estimate was framed in 1995.

Audit scrutiny disclosed that till 2002 only 70 per cent of drainage channel was done and balance work was not taken up as the villagers declined to hand over land. The work of Sluice Culvert was completed in 2006 as per design framed in the year 1995, but the desired velocity to drain out water could not be achieved due to accumulation of water hyacinth and heavy siltation in drainage system during these seven years (1999 to 2006). Since 2006, no further work was executed. The Department spent ₹5.98 crore till March 2008 and no payment was made thereafter. Ultimately the scheme was proposed for abandonment (September 2010) as the work executed did not serve the purpose and construction of one additional sluice gate was undertaken.

Thus, defective project management and inordinate delay in execution resulted in wasteful expenditure of ₹5.98 crore and denial of benefit to targeted beneficiaries. The Chief Engineer stated (November 2011) that drainage channel could not be completed as the villagers declined to handover the required land for the project. The reply was not tenable as the required land was to be acquired prior to taking up the scheme.

3.9.1.3 Rural Infrastructure Development Fund (RIDF)

National Bank for Agriculture and Rural Development (NABARD) provides loan assistance to cover 95 *per cent* of estimated cost of schemes sanctioned by them under Rural Infrastructure Development Fund (RIDF) and balance 5 *per cent* is to be funded by the State Government. During 2006-11, GOA accorded administrative approval of ₹182.17 crore for 39 schemes and were completed at a cost of ₹175.77 crore with a liability of ₹0.73 crore. Irregularities in implementation of the schemes noticed during test-check are discussed in succeeding paragraphs.

(i) Protection of Katori Chapori and its adjoining areas from the erosion of river Subansiri at right bank (Phase II)

To solve acute bank erosion problem of Katori Chapori area in the down stream of NH 52 on right bank of Subansiri by diverting the river through spill channel of Subansiri (through which 80 *per cent* of the discharge of Subansiri was flowing) river to its original course an estimate was accepted (September 2002) by the GOI with provision of five land spurs. The State Government subsequently submitted a fresh proposal with provision of four land spurs to NABARD, which was accepted in October 2005. Finally GOA had accorded administrative approval at ₹4.32 crore (November 2006) having provision of three land spurs and technical sanction was also accorded for the same amount (May 2006).

The work commenced (March 2006) and completed (July 2006) with three land spurs at an expenditure of ₹4.32 crore. But construction of estimated three land spurs could not arrest the erosion problem at down stream adjoining areas of project. It was seen from above that the work, which required more than three land spurs, was completed with only three spurs to match the fund as price escalation, increase in forest royalty and imposition of value added tax etc restricted the use of fund. Thus, expenditure of ₹4.32 crore could not achieve the desired result in absence of required spurs. The Department also accepted the fact.

(ii) Inflated estimate submitted to NABARD for sanction of interest bearing loan

(a) Administrative approval was accorded to the scheme “Raising and strengthening of Brahmaputra dyke from Desungmukh to Dikhowmukh” for ₹6.91 crore by GOA in November 2006 under NABARD (RIDF-XI). Copy of the DPR could not be produced to audit. The work commenced in August 2006 and completed in January 2008 at an expenditure of ₹6.91 crore. Further scrutiny of records revealed that the estimated items of the work was completed at ₹6.45 crore. Thus a savings of ₹0.46 crore accrued due to reduction of scope of earth work, namely turfing work etc. which was utilized for execution of additional quantities of porcupine work and contingency etc. against the same work.

(b) Administrative approval for “A/E measures of Dikkhow bund R/B from Bagharchuk to Bohaghat” was accorded for ₹2.93 crore in February 2006 under NABARD (RIDF-XI). The work commenced in February 2006 and completed in March 2007 at an expenditure of ₹2.93 crore. It was noticed that savings of ₹0.18 crore that accrued due to reduction of scope of few items of work i.e. supply of materials, pitching of CC Block, etc. was utilized for some additional items of work for which no provision was made in the estimate.

(c) Similarly administrative approval was accorded for the schemes namely “Raising and strengthening to Desang bank right bank embankment from Desangpani to AT Road etc. for ₹7.15 crore in July 2007 under NABARD (RIDF-XI). The work commenced in March 2007 and completed in October 2008 with an expenditure of ₹7.15 crore. Scrutiny of the records revealed that 91 *per cent* of earth work and 100 *per cent* of porcupine work was completed prior to handing over the dyke to PWD for further improvement of the crest by black topping work and the accrued savings amount of ₹14.41 lakh was utilized against other item of works against which one sub estimate was sanctioned for ₹7.63 lakh.

Thus, in the above three cases, ₹71.63 lakh saved from the approved schemes were utilized in violation of Rule 270 of AFR which provides that savings on sanctioned projects are not be considered available for work on other section.

(iii) Unfruitful expenditure

The work A/E measures at different reaches on right bank of Jiabharali river from Dharikati Mirigaon to outfall (NH bridge to outfall) was administratively approved (September 2006) for ₹6.12 crore by GOA under RIDF-XI. The work commenced in April 2006 and completed in June 2010 after delay of 15 months from the due date of completion and total expenditure of ₹six crore was incurred on work.

Scrutiny of the records revealed that one of the item of work “construction of boulder bund across the Morabharali river just upstream of PWD bridge at Panchmile”, when attained physical progress 92 *per cent* was damaged during flood of 2007. Both CE (WR) and an expert team comprising of members from IIT Guwahati, IIT Roorkee and members of WR Department etc. after inspection of the damaged site found that the mouth of the Morabharali bifurcated from Jia Bharali was blocked by embankment and therefore, there was no water in the river. Hence, boulder bund had no function. An amount of ₹1.83 crore was already incurred on the item of work and became unfruitful since boulder bund had no function.

3.9.1.4 Eleventh Finance Commission (EFC)

During 2006-11, total nine schemes were executed under the programme. The GOA accorded administrative approvals to nine schemes at ₹20.03 crore. These nine schemes were completed with an expenditure of ₹14.29 crore and committed liability ₹0.89 crore. The savings ₹4.85 crore indicated that the estimates were inflated in these cases to obtain more fund from GOI.

3.9.1.5 Joint River Commission (JRC)

The programme Joint River Commission covers schemes on international border. It is funded by the Government of India. During 2006-11, one scheme was approved by the GOI for ₹1.96 crore under Joint River Commission (JRC) and administrative approval was accorded by GOA for ₹1.83 crore (October 2006). The scheme was completed in March 2009 at an expenditure of ₹0.75 crore and liability of ₹0.24 crore. Irregularities in implementation of the scheme noticed during test-check is discussed below.

(i) **Extension of bank stabilizer measures on the left bank of the river Kushiyara at steamerghat area of Karimganj town at down stream from chainage 110-250 metre”**

The river Kushiyara demarcates the Indo-Bangladesh Border. In order to arrest bank sloughening at steamer ghat area at Karimganj town in the left bank of the river a scheme was taken up. The scheme was approved by the GOI for ₹1.96 crore under Joint River Commission (JRC) and Administrative approval was accorded by the GOA for ₹1.83 crore (October 2006). The scheme envisaged bank stabilization work with timber pile, boulder apron in cages, earth filling of water logged area in the country side with geo textile single layer as anti erosion measure. Work orders were issued to 212 contractors in December 2006 and materials were stacked, up to April 2007. The work was resumed in November 2007 but due to objection raised by the Government of Bangladesh the work was stopped and after negotiation the work was restarted from February 2008 and completed in all respect in March 2009 except application of geo fabrics/synthetics woven textiles. Audit scrutiny revealed that provision was made in the estimate for 6,720 m² geo fabric work to cover 5,600 m² area on the embankment of Kushiyara river bank to prevent loss of land of Indian territory, but the Department laid geo fabric of 5,500 m² only against estimated quantity which could cover only 4,584 m² and left 1,016 m² (18.14 per cent) uncovered though it was claimed to be completed. As a result, seepage in the uncovered constructed area could not be ruled out which may affect life of the embankment. Due to non-evaluation of the work after execution, this inadequate coverage did not come to light.

3.9.1.6 North Eastern Council aided schemes (NEC)

Only two schemes were sanctioned by North Eastern Council (NEC) during 2006-11 at a total cost of ₹18.67 crore of which one scheme³³ (sanctioned in February 2011) was not started. Irregularities in execution of the other scheme is discussed in the paragraph below.

(i) **Controlling of Jiadhal River in Dhemaji District**

River Jiadhal, originates from Sub-Himalayan Ranges. Three small rivers meet Jiadhal at 11 Km upstream. High intensity rainfall adds excessive silt discharge to the

³³ Protection of Raimona village and adjoining area from erosion of river Janali in Kokrajhar District.

river which follows a braided pattern. As a result, severe erosion and avulsion in the natural course of the river takes place during monsoon leading to breaching of embankment (photograph alongside) causing immense loss and misery to the people as well as disruption of railway and road communication. To combat the situation, a Detailed Project Report (DPR) showing estimated cost of ₹53.83 crore was framed by Dhemaji Water Resources Division as per suggestion of High Power Technical Committee comprising members from various State and Central Government Organizations and after detailed study of hydraulic model of the structure by Brahmaputra Board.



4.2 Km open breach embankment of Jiadhhal river in Dhemaji District

The DPR was submitted to NEC (December 2003) and NEC after discussion with the Water Resources Department decided (February 2004) to take up the project in phased manner and the estimate was recast into two parts. Leaving aside the river controlling and river training works, only items which would impart immediate relief were included in Phase-I. NEC approved Phase-I of the project at a cost of ₹14.94 crore with the stipulation that execution should not commence without technical sanction (February 2006). According to implementation schedule, the work was to be completed in five months. However, violating the stipulation of NEC, the work commenced (November 2006) before technical sanction (accorded in June 2007).

Audit scrutiny disclosed that viability of Phase-I of the project was not carefully examined and alignment of the dyke taken up for construction was very close to the river. Due to absence of anti erosion work and close alignment, the dyke constructed at a cost of ₹4.47 crore was breached (50 meters) during flood of July 2007. Though the Department tried to close the breach and spent ₹4.25 crore on breach closing, the breach increased to 4.2 Km (July 2010) eroding the entire breach closing work (Photograph above).

Thus, execution of work without anti erosion and river training work and without examining viability of the project led to wasteful expenditure of ₹8.72 crore (₹4.47 crore + ₹4.25 crore). Moreover, there was no respite for the targeted inhabitants of the area who continued to suffer from the fury of flood every monsoon. The Chief Engineer accepted (November 2011) the audit observation.

3.9.1.7 State Plan

During 2006-11, nine schemes were sanctioned under State Plan for ₹18.55 crore and completed with an expenditure of ₹16.53 crore. Irregularities in execution of one scheme is discussed in the paragraph below.

(i) Anti erosion measures at Karderguri area to protect Simalguri Satra from erosion of river Brahmaputra

As per PWD norms minimum curing period of 28 days is required to gain strength for RCC/ CC structure. However, it was noticed that 1,985 numbers of porcupine (each

three meter long) worth ₹14.17 lakh were supplied by seven contractors within 18 to 23 days from the date of issue of work orders in respect of the scheme “Anti erosion measures at Karderguri area to protect Simalguri Satra from erosion of river Brahmaputra”. The scheme was approved under State Plan in December 2009 at ₹1.10 crore with a provision of ₹55.77 lakh for supply of porcupine. The work was reported as completed in April 2010. The aforesaid materials were procured and utilized prior to completion of required curing period. Therefore, this has the possibility of shortening the life span of the porcupines reducing its effectiveness. But post execution impact study if any, conducted was not made available to audit.

3.10 Other Points of Interest

3.10.1 Central Loan Assistance (CLA)

Irregularities in implementation of one scheme sanctioned under CLA is discussed below:

- (i) **Construction of retirement of Brahmaputra dyke from Tezpur to Gabharumukh from Right Bank Depota embankment at Chainage 4,020 meter to downstream of Brahmaputra Dyke at Chainage 5,700 meter**

The project was approved by GOI at a cost of ₹2.93 crore (February 1992) under Central Loan Assistance (CLA) with the stipulation to complete the project within two years. The project aimed to protect three affected Mouzas³⁴ recurrently suffering from the fury of flood and consequent loss of property (₹3.54 crore per annum) due to erosion of Brahmaputra Dyke (1990) constructed in 1955-56. The work of the project continued till March 2000 (physical progress: 53 *per cent*) and thereafter the execution was discontinued due to land dispute and non-payment of compensation to land owners. The Department had spent an amount of ₹1.86 crore till March 2011 on the work. According to information furnished by the Divisional Officer (November 2010) of the executing Division³⁵, the project was in an abandoned state and the proposal for abandonment of work was under process for approval.

Payment of land compensation for required land and ensuring availability of land are essential prerequisites for taking up any work of this nature. However, inefficient project management by the Department resulted in wasteful expenditure of ₹1.86 crore and continuance of misery of affected population.

3.10.2 Calamity Relief Fund (CRF)

Calamity Relief Fund was constituted by GOI as per recommendation of the Eleventh Finance Commission (EFC) to provide relief caused by natural calamities. Under CRF, repair/restoration of immediate nature was permissible. EFC categorically

³⁴ (i) Maha Bhairab, (ii) Bhairab Pad and (iii) Bihaguri

³⁵ Tezpur Water Resources Division

rejected the proposals to meet expenditure on restoration and reconstruction from CRF. Audit scrutiny revealed that the State Government sanctioned schemes of permanent nature under CRF disregarding the stipulation of EFC. Irregularities noticed in implementation of the schemes are discussed in succeeding paragraphs.

(i) **Immediate measure to strengthen Dikrong Right Bank embankment to protect Pithaguri Deorigaon and its adjoining villages for 2007-08**

The river Dikrong, a tributary of the river Subansiri had developed a spill channel in the year 2000 at 300 meter downstream of Railway Bridge near Kumolia Chapri of North Lakhimpur District. Initially the width of the channel was 20 meters, but gradually it had increased to 150 meters. This channel caused havoc in flood season and inundated vast areas of adjoining villages disrupting normal life.

To prevent major bank erosion, WRD framed an estimate for ₹1.53 crore and GOA accorded administrative approval to the scheme under Calamity Relief Fund in October 2007 for execution by North Lakhimpur Water Resources Division. The work commenced in February 2008 and reported as completed in July 2008. As of March 2011, ₹1.09 crore was spent on the work.



Eroded Dikrong Chapori Village

During site visit by audit team (September 2010) along with the departmental officials, the aforesaid protection work could not be traced; on the contrary, there was severe bank erosion alongside the project area. Interaction with the villagers of Dikrong Chapori residing near the project site revealed that during construction stage itself, the protection work was washed away (Photograph alongside). The Executive Engineer of the Division confirmed the fact (September 2010) intimating that the project was washed away due to high velocity of flood (August 2009). The Division, however, did not intimate the fact to the Government (August 2011).



Ring well of a washed away residence

Thus, there was no respite for the inhabitants of the area from fury of flood each monsoon, and the expenditure proved infructuous. The Chief Engineer accepted (November 2011) the audit observation.

(ii) **Construction of embankment with protection work to right bank of river Saralbhanga from Uttar Khagrabari to Chandrapara Part-I, 2006-07**

To control inundation of vast areas of village Uttar Khagrabari and Chandrapara Part-I at the upstream of meeting point of river Saralbhanga with river Gaurang, the scheme was sanctioned (August 2007) at a cost of ₹36.63 lakh by GOA. The scheme provided for construction of 2,000 meter earthen dual bund and six boulder deflector. The work was allotted to five contractors (March/May 2008) for completion within 30 days. The work commenced in April 2008 and completed in June 2008 at a cost of ₹36.61 lakh. Immediately after completion of the work, all the six deflectors were outflanked by flood water and the most of the earthen bund got eroded (July 2008) during high spate of the river.



Breached newly constructed embankment

In Assam, monsoon starts generally from 15 May and ends on 15 October and it was recommended by the PAC in its 119th Report that work should be executed during dry season and not during monsoon. However, audit scrutiny disclosed that despite this stipulation, the work was executed during monsoon (15th May to 15th October) resulting in wasteful expenditure of ₹36.61 lakh and denial of benefit to intended beneficiaries.

The Chief Engineer stated (November 2011) that the work was washed away in the month of July 2008 due to change of river course. Violating the recommendation of PAC, the Department executed the work during monsoon season, which resulted in wasteful expenditure of ₹36.61 lakh.

(iii) **FDR for channelization of River Manas to its original course at Mathanguri for 2004-05**

The river Beki originates from Bhutan hills and trifurcates into three channels³⁶. During the flood of 2004, huge quantity of boulder and silt carried with flood water choked the mouth of river Hakua and river Manas near Mathanguri and maximum water was channelised through river Beki breaching the tie bund of river Beki at Narayanguri (July 2004). For clearing the choked portion of river Manas, a scheme was sanctioned by GOA at a cost of ₹3.25 crore (March 2005). The scheme provided channel cutting at downstream and construction of two cage deflectors inside neighboring country Bhutan. The work commenced in March 2005 and after achieving 85 *per cent* physical progress of channel excavation and 70 to 80 *per cent* progress of deflectors at the aggregate cost of ₹2.40 crore, execution had to be stopped (May 2005) due to objection raised by Government of Bhutan as deflectors

³⁶ (i) Beki, (ii) Hakua and (iii) Manas.

were being constructed without obtaining their consent. Due to incomplete deflectors at upstream, the excavated channel could divert only 30 *per cent* of the targeted flow of water from river Beki to river Manas.

Thus, taking up construction under the scheme without obtaining prior consent of neighboring country led to infructuous expenditure besides non-achievement of expected outcomes.

Further scrutiny disclosed that another scheme “Immediate measure for activation of river Manas and Hakua at Matahnguri for 2007-08 under CRF” was sanctioned by GOA at a cost of ₹five crore (April 2008). The work commenced in May 2008 and continued during monsoon. After achieving 63 *per cent* physical progress and incurring liability of ₹3.15 crore, the scheme was abandoned due to silting of excavated channel during flood (September 2008). Works of this nature ought to have been taken up and completed before arrival of monsoons/ floods which is possible to be executed through an efficient system of planning and project management.

Thus, lack of planning and improper project management led to wasteful expenditure of ₹5.55 crore including liability of ₹3.15 crore. The Chief Engineer stated (November 2011) that commencement of the work was delayed due to transportation of heavy machinery from distant places as well as for official formalities. Reasons for delay attributed by the Chief Engineer were not tenable because these are common factors to be taken care of well in advance.

(iv) Wasteful expenditure

(a) The Water Resources Department prohibited utilisation of sandy soil in respect of two schemes.³⁷ However, utilisation of sandy soil by one sampled Division³⁸ contrary to the estimated provision invited enquiry from the State Government. The enquiry committee visited the spot (June 2008) and commented on the use of sandy soil in the work. Ultimately, both the works were washed away (September 2009) due to sudden breach in the dyke Thus, the expenditure of ₹6.88 crore spent on execution proved wasteful which could have been avoided had sandy soil not been used in the work.

(b) Sanction was accorded by the Revenue Department in March 2005 for ₹77.99 lakh for implementation of a scheme “Flood damage repairing to flood embankment along R/B of Kollong river from Phuluguri to Molankata and Raha to Chaparmukh (Restoration and recouplement of sloughening affected reach at 11th Km

³⁷

Name of scheme	Sanctioned on	(₹in crore)
		Expenditure
Immediate measures for closing of breach of Brahmaputra Dyke from Sissikalghar to Tekeliphuta for 2007-08 at 19 th Km near Matmara Area	November 2007	2.54
Immediate measures for closing of breach at 23 rd Km of Brahmaputra Dyke from Sissikalghar to Tekeliphuta for 2007-08 under Modarguri village.	February 2008	4.34
Total		6.88

³⁸ Dhakuakahana Water Resources Division.

and 13th Km for 2004-05” against which technical sanction was accorded for ₹77.47 lakh in December 2005. The estimate was framed for restoration of existing portion of the dyke along right bank of Kollong river from Phuluguri to Molankata and Raha to Ckhaparmukh (Ch. 12,560 M to 12,660 M) and at Bhatigaon (Ch. 13,765 M to Ch. 13,855 M) from river erosion. During the draw down condition of river Kollong after the unprecedented flood of July 2004, sloughing of the bank due to seepage from the country side was another serious problem faced by the dyke resulting in decline down of the dyke at Rahachoki at 12th Km and at Bhatigaon at 13th Km. The work order for Rahachowki side was issued to one contractor for ₹29.31 lakh and for Bhatigaon site at ₹24.32 lakh in March 2005 against which ₹36.63 lakh and ₹37.10 lakh was expended up to March 2008.

Scrutiny of the records revealed that the “cast in situ pile driving” work done on the river side during the month of March 2005 was not at all successful and after conducting test boring on the country side on 12 February 2008 the seepage line had been found below six meter from the ground level. As a result, the river embankment was slumped down for a length of 70 M i.e. from Ch. 12,570 M to 12,640 M (at Rohachouki) during February 2008. Thus, the entire expenditure of ₹36.63 lakh incurred became unfruitful.

In this connection, audit observed that had the sloughing problem been tackled as permanent measure by conducting boring test etc. before execution of work the unfruitful expenditure to the tune of ₹36.63 lakh could have been avoided.

Due to failure of the aforesaid scheme, another scheme namely “Raising and strengthening to flood embankment along right bank of Kollong river from Phulaguri to Molankata and Raha to Chaparmukh including Anti erosion measures” was taken up under FMP against which administrative approval was accorded by the WRD for ₹6.29 crore. The work was commenced in February 2009 and was in progress (96 per cent) with an expenditure of ₹3.63 crore (March 2011).

3.10.3 Parking of fund

The Guwahati Development Department released ₹3.51 crore on 31 March 2010 to the East WR Division, Guwahati for execution of three schemes and at the same time issued instruction to keep the amount in Revenue Deposit. Accordingly ₹3.51 crore was deposited to 8443 Revenue Deposit on 31 March 2010. Audit scrutiny revealed that ₹3.51 crore meant for three schemes³⁹ was retained in revenue deposit as of September 2011 in violation of the provisions of Assam Treasury Rules wherein it was stipulated that money should not be drawn unless required for immediate

39

(₹ in crore)

Sl. No.	Name of work	Amount
1	Dwarakanagar Mathuranagar last portion	0.21
2.	Guwahati University Drain	3.04
3.	Rubble Masonry Flood Wall at Bharulu	0.26
Total		3.51

disbursement. This has adversely affected the progress of schemes as discussed under Programme Implementation (Paragraph 3.9).

3.10.4 Execution of work without model experiments and soil testing and collection of hydrological data

Hydraulic model experiments, soil testing and intensive survey of the area are prerequisites for flood management projects. Laboratory experiments assess the efficacy of design of respective projects. To carry out hydraulic model experiments and soil testing of various rivers against different proposals of flood control, anti erosion/town protection, drainage etc. two Research Divisions viz. Soil Research Division and Hydraulic Research Division under River Research Station were established by the GOA in 1958.

During 2006-11, sub-soil testing was conducted in respect of only three schemes⁴⁰ sponsored by NEC and Asian Development Bank (ADB) in only one year i.e. 2007-08. No other model experiments or soil testing were conducted though 199 projects involving raising and strengthening of embankments and anti-erosion works at a cost of ₹775.59 crore were executed by the Department during 2006-11. Successful implementation/timely completion/quality assurance of the projects depends on survey and investigation of that particular area. But none of the test checked Divisions could produce, on demand, any survey report in respect of the projects undertaken by them which indicated that no survey was conducted before undertaking the projects. Works executed without survey, without required model experiments and soil testing was violative of the standard norms and had no assurance of quality and durability of the projects. Absence of sub-soil testing and hydraulic model experiments resulting in execution of weak and ineffective projects which failed to achieve the desired results and a number of projects were washed away as discussed under Programme Implementation (paragraph 3.9.1.6 and 3.10.2).

Four Investigation Divisions⁴¹, under the Department were engaged in collection of gauge data, gauge discharge data, rainfall data, collection of silt samples from the river etc. and also survey of Brahmaputra to find aggradations and degradation which are used for planning and design of Projects, such as embankment and drainage system, roads, dams, master plan for various rivers and preparation of annual Water Year Book. As per guideline of CWC, the basin wise hydrological data was to be reflected in the year book for references before preparation of project design, master plan etc. It was however, noticed that Lower Assam Investigation Division, Barpeta and Middle Assam Investigation Division, Mangaldai did not publish Water Year Book since 2002. Non publishing of the Water Year Book was attributed to paucity of funds reflecting poor planning and imprudent priorities in allotment of funds by Government. During 2006-11, ₹25.89 crore was spent on pay and allowances of the

⁴⁰ (i) Controlling of Jiadhhal River in Dhemaji District (NEC: 2007-08), (ii) Construction of retirement at 19th KM of Brahmaputra Dyke for Sissikalgher to Tekeliphuta near Matmara and (iii) NEIFREM project at Dibrugarh and Kajiranga under Dibrugarh and Jorhat District (ADB: 2007-08)

⁴¹ (i) Lower Assam Investigation Division, (ii) Middle Assam Investigation Division, (iii) Upper Assam Investigation Division and (iv) Cachar Investigation Division.

two Divisions which failed to publish the targeted Year Book that provides basin wise hydrological data for master plan project design. As a result, five numbers of embankments were washed away rendering the expenditure incurred wasteful, as discussed under Programme Implementation (paragraph Para 3.9.1.1(iii), 3.9.1.6(i), 3.10.2(i) & 3.10.2(ii)). The Chief Engineer stated (November 2011) that necessary steps have been taken up for proper functioning of the divisions and publishing Water Year Book.

3.10.5 Non-availability of Schedule of Rates (SOR)

The Water Resources Department had no approved Schedule of Rates (SOR) and only circle wise SOR was maintained till 1992-93. In the absence of approved SOR, estimates were prepared and approved by the Government on the basis of circle wise/division wise/scheme wise analysis of rate. The format of analysis was, however, neither approved by the Chief Engineer or any other authorized agency. As a result, there was no uniformity in the rates of execution and procurement and different rates were followed in different Water Resources Circles/Divisions. Thus inflated estimates and consequent inflated expenditure could not be avoided. On several occasions, the Ministry of Water Resources, GOI, Central Water Commission suggested either to review the analyzed rate or to follow the state PWD, SOR. In fact, two Divisions⁴² adopted rate for carriage of boulders as per Assam Public Works Department (APWD) SOR while preparing estimates, which was approved by the Department. Two sampled Divisions incurred excess expenditure of ₹3.83 crore due to adoption of inflated rates. Details are shown in Table-4.

Table – 4: Excess expenditure on account of absence of SOR

Name of Division	Name of scheme	Approved rate as per APWD SOR (₹ per Cum)	Sanctioned estimated rate (₹ per Cum)	Rate awarded (₹ per Cum)	Difference (₹ per Cum) (6-4)	Quantity executed (Cum)	Excess expenditure (₹ in crore)
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Baksa	River training work at Golandi river including closing avulsion at Angragaon village under EFC	64	115.85	111.02	47.02	37,38,94.50	1.76
Chirang	Immediate measure for activation of river Manas and Hakua at Mathanguri for 2007-08 under CRF	64	220.48	220.48	156.48	13,25,00.00	2.07 (Liability)
TOTAL							3.83

Source: Departmental records.

Acceptance of rates, higher than those of the APWD, SOR resulted in excess expenditure of ₹3.83 crore. The Chief Engineer accepted (November 2011) the audit observation and stated that preparation of SOR is in process.

⁴² Karimganj and Silchar Water Resources Division.

3.11 Human Resource Management

3.11.1 Unproductive expenditure on idle staff

(i) The purpose of establishment of Hydraulic Research Division, Guwahati is to conduct hydraulic model studies of various rivers against different proposals of flood control, anti-erosion/town protection etc. As per the information furnished by the Division, no such model study was conducted since June 2001. Scrutiny revealed that a large area of land containing model - trays were handed over to the Government for construction of National Games village in December, 2004. No experimental work was done in the Division for which it was created and a sum of ₹5.92 crore spent towards pay and allowances of the personnel during 2006-07 to 2009-11 thus remained unproductive.



Model – tray (16 November 2010)

(ii) Except during the year 2007-08, no sub-soil investigation was carried out by the Department during 2006-11. During 2007-08 only three sub-soil tests were conducted by the Soil Research Division. Consequently, expenditure of ₹4.85 crore incurred towards pay & allowances and maintenance of the Division remained largely unproductive.

(iii) The main function of the North Lakhimpur Mechanical (WR) Division was (i) repairing and maintenance of vehicles, machineries, (ii) construction, repair, maintenance of sluice gates, (iii) construction of channel cutting by mechanical means, (iv) construction of embankments, retirements, check bunds by deploying bull dozers/excavators, clearance of drainage by utilizing pontoon mounted excavators, dewatering by pumps.

Audit scrutiny however, revealed that existing major plant and machinery of the Division were not in functional condition and no new machinery/ equipment were provided to the Division in spite of demand placed. Since 2005-06 the Division was not allotted any scheme. Further, it was noticed that out of existing 34 sluice gates only four sluice gates were in operational condition. The rest 30 required major repair. The above condition indicated that the Division was in existence without any work. Expenditure incurred towards pay and allowances of the personnel of the Division to the tune of ₹5.36 crore during April 2006 to March 2011 remained largely unproductive.

(iv) In Guwahati Mechanical Division, 20 officials remained idle due to non availability of required bulldozer, road roller, tractor, crane and dumper for construction. However, ₹1.18 crore was spent on pay & allowances of officials during 2006-11 remained largely unproductive. The Chief Engineer stated (November 2011) that idle manpower in respect of Hydraulic Research Division and Soil Research Division, Guwahati would be utilized suitably in forthcoming schemes and idling of manpower in respect of both the Mechanical divisions was due to paucity of fund.

However, no effective action has so far been taken to utilize the idle manpower meaningfully.

The Department, in exit conference, accepted the fact and assured to utilize the idle staff suitably.

3.11.2 Underutilization of Departmental machinery and ancillary equipment

Inhabitants of Guwahati city suffer from perennial problem of heavy water logging during monsoon disrupting flow of traffic and normal life. To control the problem, Guwahati Mechanical Water Resources Division purchased (between October 2007 and July 2008) machinery worth ₹2.58 crore against the scheme “Roadside drains of Guwahati including desiltation” with financial assistance recommended by Twelfth Finance Commission (TFC). Details of cost and performance of machinery for last three years are shown in Table-5.



Amphibian Mini Dredger (January 2011)

Table - 5
Performance of machinery

Sl. No.	Machinery/Equipment	Excavation work done during (Cum)		
		2008-09	2009-10	2010-11
1.	Amphibian Mini Dredger	9060	7935	5500
2.	PC-130 Excavator	64405	17160	28026
3.	TMX-20 Excavator	9982	3963	4747
4.	TS-80 Excavator	39744	27114	12960
5.	Hopper Barge (2 No)	6048	1143	1314
6.	Tripper (2 No)	27748	10738	10304
Total		1,56,987	68,053	62,851
Norms: minimum three lakh cubic meter (Cum) earth work per year		52 per cent	23 per cent	21 per cent

Source: Departmental records.

Only 21 to 52 *per cent* capacity of the machinery was utilized during 2008-11. Under utilization of machinery is a significant reason for the population of Guwahati town having no respite from water logging as can be seen from the adjacent photograph.

The supplier⁴³ of Amphibian Mini Dredger and Hopper Barge offered to train departmental staff to operate the machinery ‘free of cost’. The Department however, did not take advantage of the offer. Instead it hired drivers and operators for Dredger and Barge and spent ₹0.17 crore during 2008-11 towards hire charges. In



Flooded Guwahati city (June 2011)

⁴³ M/s Perfect Dredging Company Private Limited, Chennai.

reply, the Chief Engineer stated (November 2011) that excavators were also utilized in cleaning works in addition to excavation works. The reply is not tenable as it did not specify quantum and type of cleaning done by the excavators.

3.11.3 Capacity building

Training is a scientific endeavor to improve the skills of human resources. Water Resources Department has however, no provision of post-wise periodic training and skill up-gradation programme except for ministerial staff and Section Assistant (SA). During 2006-11, only one ministerial staff was nominated to attend the training programme conducted by the Finance Department and 83 SAs (6 per cent) were imparted training at the sectional assistant training centre, Guwahati against 1,427 SAs on roll.

Thus, the effort of the Department for capacity building was insufficient.

3.11.4 Posting of subordinate officer to higher post and holding of more than one post by a single officer

In North Lakhimpur Division the post of Accounts Officer was held by a Deputy Accounts Officer from February, 2010 onwards although the Finance Department claimed that the posts of the Accounts Officers of the Divisions were not manned by any subordinate officer.

Besides, one Accounts officer was holding the charge of three Divisions at a time (Dhakuakhana Water Resources Division, North Lakhimpur Mechanical Water Resources Division & North Lakhimpur Public Health Engineering Division) for last 17 months.

Lack of training facilities resulted in dearth of skilled manpower. Due to injudicious surrender of land meant for model tray study of projects, the Department could not conduct any such experiment. The Department also could not utilise available infrastructure of the Mechanical wing of the Department which reduced the overall efficiency of the Water Resources Department significantly.

3.12 Inventory Management

3.12.1 Irregularities in Stock Account

Test-check of records in respect of 13 sampled Divisions revealed the following irregularities:

- Eight sampled Divisions, book value exhibited ₹2.35 crore in the monthly accounts against the aggregate sanctioned Reserved Stock Limit of ₹0.91 crore. Scrutiny however, revealed that the ground value of physical stock balance retained by the Divisions was only ₹0.14 crore resulting in discrepancy of ₹2.21 crore. These differences occurred due to non-adjustment of issued materials for a long time and ineffective internal controls.

- Two Divisions (Baksa and Dhakuakhana Water Resources Division) neither possessed any store nor had any sanctioned reserve stock limit. However, except Goalpara Water Resources Division, other 10 Divisions could not produce Bin Cards, Goods Receipt Sheet, Material Purchase Suspense Settlement Account, Indents etc. to verify the position of ground balances held by the enlisted Divisions.
- Not a single Division had maintained Priced Store Ledger to exercise internal control over the store account as per codal provision.
- Before issuing new bin card, the completed bin card should be returned to the Divisional Officer to carry over the balances to the new card and the old bin card should be preserved at the Divisional office. Old bin cards were, however not produced to audit.
- One Division (Mangaldai Water Resources) could not furnish any information/data relating to Divisional store.

Thus, inventory management in these test checked divisions were not in accordance with prescribed manualised provisions.

3.13 Monitoring and evaluation

Due to lack of documentation at each and every level of the Department and absence of database of the schemes/ projects the progress in implementation was not readily ascertainable by the Department. Programmes implemented were not reported regularly to the State Government either by the Division or by the entrusted authorities to monitor the programme implemented. The Divisions were to submit quarterly returns on progress of schemes undertaken by them to the Chief Engineer. Submission of the returns by the Divisions was found occasional and intermittent.

As per Paras 5.1, 5.6 and 4.13 of the revised guidelines of Flood Management Programme, physical and financial progress of schemes undertaken under the programme was to be monitored by Brahmaputra Board which was to recommend release of funds (mandatory before release of 2nd installment). Audit scrutiny disclosed that during 2006-11, implementation of 17 out of 83 schemes were not monitored by the Board.

Impact of the programme was not evaluated either by the State Government or by any independent agency. Thus, effectiveness of the programmes in the State was not assessed denying the State Government the opportunity to take remedial measures. The Chief Engineer assured (November 2011) that both Monitoring and Evaluation system of schemes would be streamlined.

3.13.1 Quality control

The Chief Engineer (CE), Quality Control is to ensure quality construction of flood management work. To achieve above objectives, the state Government under

Notification of 1999 entrusted following specific function to the Chief Engineer, Quality Control:

- Checking at initial level before works are taken up.
- Checking final level before payments are made.
- Checking quality and specification of works to ensure proper specification.
- Test-check of survey.
- Enquiry into allegations relating to works and departmental staff.
- Monitoring and evaluation of works executed by the Department.
- Liaisoning with Central Water Commission and Planning Commission, Government of India for obtaining clearance of Central Sector Schemes.

The Chief Engineer, Quality Control did not maintain any record or registers indicating approved programmes of field inspection, checking of quality of materials/works, allegation cases registered and records seized/returned after disposal of cases. Audit scrutiny disclosed that 35 cases were registered in connection with fraud and corruption in execution of work during 2006-11 including seizure of records in five cases against which enquiry reports on 26 cases were submitted to the Government and the balance nine cases were under process. Test-check of enquiry reports, however, did not disclose establishment of any serious allegations against any official. Follow up action on the enquiry reports by the Government was not furnished by the CE, Quality Control.

The Department could not show any report on quality control of works/ materials etc. Records on monitoring and evaluation of the completed projects were also not maintained. This points towards ineffective quality control and weak documentation.

3.14 Internal control

Internal control is an integral process that is effected by an entity's management and is designed to provide reasonable assurance that the following general objectives are being achieved:

- Fulfilling accountability obligation;
- Complying with applicable rules and regulations;
- Implementation of programme in an orderly, economical, efficient and effective manner.

The following major weaknesses existed in the internal control system of the Department giving scope to malpractice, misappropriation, fraud, embezzlement etc.

(i) Award of work without calling tender

Five test-checked Divisions (Karimganj, Goalpara, Baksa, Sivasagar and Dibrugarh) invited tenders in respect of eighteen schemes for ₹63.49 crore against sanctioned amount of ₹82.58 crore. Balance works involving ₹19.09 crore were allotted (*Appendix – 3.3*) to contractors without inviting tenders violating the provisions of Rule 285 of APWD Manual wherein it was laid down that sealed tenders should invariably be invited in the most open and public manner possible.

Works in respect of four schemes were allotted to contractors by the Goalpara and Karimganj Water Resources Division without call of tender and as of March 2011, ₹76.07 lakh was paid to them against execution of works. Details are shown in *Appendix – 3.4*. The Department assured (November 2011) that henceforth no work will be allotted to contractors without inviting tenders.

(ii) Non-accountal of Bank Draft

The Chief Engineer, WRD forwarded (February 2009) 20 demand drafts (₹10,000 each) being sale proceeds of tender papers to the Dhakuakhana Water Resources Division for deposit. The drafts were valid for six months. The Divisional Officer had neither taken the drafts into account nor made any attempt to encash them after revalidation despite audit observation (March 2011).

Similarly, three drafts involving ₹2.01 lakh having six months validity submitted by one contractor (being 2 per cent earnest money) were not deposited to the revenue head of accounts by the Tezpur Water Resources Division (March 2011) resulting in revenue loss to that extent. Details are shown in Table – 6.

Table – 6
Details of draft not deposited to proper revenue head of account

(₹ in lakh)				
Sl. No.	Draft No.	Date	Amount	Contract Agreement Number
1.	008469	18.3.09	0.99	CE/WR/322 of 2009-10
2.	981599	3.4.09	0.45	CE/WR/308 of 2009-10
3.	139382	3.4.09	0.57	CE/WR/307 of 2009-10
Total			2.01	

Source: Departmental records.

(iii) Execution of work prior to accordance of technical sanction

As per provisions of Rule 243 of APWD Manual work should not be executed prior to accordance of technical sanction. It was noticed that 13 schemes of five test checked Water Resources Divisions (Baksa, Goalpara, Sivasagar, Kokrajhar and Karimganj) were executed at an expenditure of ₹22.63 crore which were not technically approved before execution. Details of the schemes are shown in *Appendix – 3.5*.

Besides other technical requirements like collection of hydrological data, model experiments and soil testing etc. before preparation of plan and estimate of the schemes was not done as indicated in paragraph 3.10.4. These shortcomings together

with non according of technical sanction may had contributed towards washing away of the embankment and palliative measures in flash flood of September 2010 in case of a particular scheme (Sl. No. 7 of **Appendix – 3.5**) resulting in wasteful expenditure of ₹2.14 crore. The Chief Engineer stated that in view of urgency works were started without getting technical sanction. The reply is not acceptable because without technical sanction technical feasibility of the work to be executed was not ascertainable.

(iv) Commencement of works prior to administrative approval and technical sanction

Rule 239 of APWD manual envisaged that work should not be executed without sanction of the proper authority. Three test checked Divisions (Baksa, Kokrajhar and North Lakhimpur) commenced 15 projects without obtaining Administrative Approval and Technical Sanction. A sum of ₹19.57 crore was spent on these projects as of March, 2011. Details of schemes are shown in **Appendix – 3.6**.

Inadequacy in internal control is also evident from the accountability issues mentioned under Fund Management (Paragraph 3.8.6). The Chief Engineer stated that in view of urgency works were started without getting administrative approval and technical sanction. Authority under which the works were taken up without administrative approval and technical sanction was not stated.

(v) Periodic inspection of Divisions not conducted by SEs

As per APWD Code, the Superintending Engineers are required to inspect the Divisions at least once in a year. It was noticed that none of the 13 test checked Divisions were inspected by the SEs during 2006-11. This indicates that the internal control and monitoring system would need to be strengthened in the Department. The Chief Engineer assured that necessary instruction would be issued to all the SEs to conduct annual inspection of the Divisions under their control.

(vi) Internal audit arrangement

The Department did not have any internal audit wing. However, the Department of Finance and Director of Accounts depute their staff viz. Accounts Officer and Dy. Accounts Officer/ Asstt Accounts Officer respectively to each and every Divisional Office/ CE's office to exercise internal check. No internal audit reports, were, however available. The services of these officers were utilized only in maintenance of accounts.

(vii) Delay in submission of monthly accounts

As per rules, monthly accounts are to be submitted within the tenth day of the following month. During 2006-11, only 87 (14 *per cent*) out of 631 monthly accounts were submitted within due date and the balance 544 were submitted beyond stipulated date, of which submission of 180 accounts were delayed by over 30 days.

The Department stated, in exit conference that steps are being taken to strengthen internal control as pointed out by Audit.

3.15 Lack of response to audit

Rule 94 of Assam Financial Rules stipulates that the departmental officers should attend promptly to audit observations and take follow-up action.

Audit scrutiny disclosed absence of initiative for settlement of outstanding audit observations. As of March 2011, 105 Inspection Reports containing 700 paragraphs were pending settlement in the Department as detailed in Table-7.

Table - 7
Status of Audit Paragraphs in IRs

Year	No. of outstanding Inspection Reports	No. of Part II A Paras	No. of Part II B Paras	Total	Inspection Reports and paras where first replies were awaited	
					Reports	Paras
1999-2000	1	-	1	1	-	-
2000-01	3	-	3	3	-	-
2001-02	3	-	3	3	-	-
2002-03	9	1	8	9	-	-
2003-04	8	3	23	26	-	-
2004-05	7	-	10	10	-	-
2005-06	10	7	9	16	-	-
2006-07	10	15	82	97	-	-
2007-08	15	33	170	203	-	-
2008-09	19	10	146	156	-	-
2009-10	16	16	119	135	7	54
2010-11	4	3	38	41	2	20
Total	105	88	612	700	9	74

Source: Office records.

3.16 Maintenance of records

(i) Outstanding Cash Settlement Suspense Account (CSSA)

Outward claims under CSSA represent value of materials supplied but not paid for by the indenting Divisions and inward claims represent materials received but not paid for by the recipient Divisions. The system of CSSA was discontinued in 1978. Audit scrutiny revealed that in 13 sampled Divisions, outward claims of ₹0.82 crore and inward claims of ₹0.71 crore pertaining to the period prior to 1978 was outstanding under CSSA.

Two⁴⁴ of 13 sampled Divisions, did not maintain the CSSA register. Thus, due to lack of initiative, expenditure lying under suspense head of account was not debited to the works/projects where the materials were actually utilized, thereby understating the expenditure on the work/project. The Chief Engineer stated that due to non-availability of fund the outstanding claim could not be settled. The Department however, did not mention the steps taken to obtain the required fund.

⁴⁴ (i) North Lakhimpur Water Resources Division and (ii) Goalpara Water Resources Division.

(ii) Deposit Register

Records of transactions relating to Public Works Deposits should be maintained in the Divisional office in a register.

Two⁴⁵ out of 13 sampled Divisions did not maintain the deposit register though scrutiny of monthly accounts revealed that there were outstanding deposits. Another Division⁴⁶ maintained register for security deposits of contractors in spite of having deposits for works to be done and closed accounts of contractors. An amount of ₹1.53 crore being revenue (Forest Royalty, VAT) realized from the contractors in 11 Divisions was lying under miscellaneous deposits for long (in one case since 1987⁴⁷). The funds were susceptible to misuse in absence of documentation and proper accounting. The Chief Engineer stated (November 2011) that concern divisions had been asked to maintain the records relating to deposits. Documentary evidence in support of the reply was however not furnished.

(iii) Miscellaneous Public Works Advance (MPWA)

Transactions recorded under MPWA are divided into four classes⁴⁸ which should be maintained by a Divisional Officer in a register.

Audit scrutiny of 13 sampled Divisions revealed that ₹1.79 crore kept under MPWA (since 1946 to 2005) was awaiting clearance. Six Divisions⁴⁹ did not classify outstanding amount of ₹0.28 crore and two Divisions⁵⁰ did not maintain the register despite having outstanding amount under MPWA. The Chief Engineer stated the matter is being looked into (November 2011).

(iv) Besides, test-check of records of 13 Divisions revealed that a number of important records were not maintained as shown in **Appendix – 3.7**.

As a result, the Divisions were not in a position to know the actual expenditure on each work (sub-head wise), up-to date payment/advance payment to contractors, value of materials lying in stores/sites, measurement of works test checked by the Divisional Officers, actual position of tools & plants etc. The Chief Engineer stated (November 2011) that necessary instructions were issued to maintain the records.

3.17 Non-production of information/records

Guidelines of the flood management, stipulate that utilization certificate relating to fund shall be issued by the concerned Chief Engineer and countersigned by the

⁴⁵ (i) Dhakuakhana Water Resources Division and (ii) Goalpara Water Resources Division.

⁴⁶ Tezpur Water Resources Division.

⁴⁷ Mangaldoi Water Resources Division

⁴⁸ (i) Sales on credit, (ii) Expenditure incurred on deposit works in excess of deposit received, (iii) Losses, retrenchment, errors etc. and (iv) Other items.

⁴⁹ Tezpur, North Lakhimpur, Kokrajhar, Goalpara, Dibrugarh and Sibsagar Water Resources Division

⁵⁰ Goalpara and Tezpur Water Resources Division

concerned Secretary of the implementing Department/ Finance Secretary of the State Government before submitting the proposal for release of subsequent installments. Records relating to utilization of funds received under 'Flood Management Programme' were not produced to audit, though called for.

3.18 Conclusion

Efforts towards containing flood so far undertaken in the State were construction of embankments, anti erosion measures, drainage channels and sluices, which are essentially flood protection measures. Efforts to undertake installation of river training structures that would help deepen the channel and reclaim eroded land from the river by deploying a combination of submerged vanes, jack jetty and board fencing were not noticed.

National policy for flood envisaged three phases of activities, viz. immediate, short term and long term measures. The emphasis in Assam has always been on short term measures like raising and strengthening of embankment, anti erosion, drainage channels and sluices. Annual plan allocation was on the basis of availability of resources rather than need based, without fulfilling the requirements at implementation level. Thus, works were required to be done in phases. As flood protection works were required to be done before onset of monsoon and as quickly as possible, there were numerous instances of works done in phases that were washed out either in the same season or in the immediate next season rendering the entire expenditure wasteful. The Department undertook embankment in first phase which got washed away immediately after construction due to absence of river training measures {Paragraph 3.9.1.6(i)}.

In addition to inadequate release of funds, there was improper project management, premature commencement of works without land acquisition, defective project planning, inadequate technical supervision etc. which led to non-achievement of the principal objective of containing floods.

New measures of undertaking flood control through river training measures as proposed in the concept paper submitted to Government of India were only in project formulation stage. As a result of haphazard execution of works based on inappropriate planning, intended benefits of the programme continued to elude the people of Assam.

3.19 Recommendations

- Long term flood control measures need to be considered for providing a lasting solution to the recurrent flood problem.
- Budget formulation should be realistic and need based. Timely release and proper utilization of funds with reference to planned activities should be made mandatory.

- Regular reconciliation of accounts with treasury may be ensured.
- Deployment of existing manpower may be critically reviewed in order to avoid idling of manpower.
- Schemes should be taken up after proper survey and investigation, sub-soil testing and hydraulic model experiments wherever necessary.
- Internal control mechanism may be strengthened to avoid financial irregularities, in addition to instituting an effective internal audit system.
- Monitoring and evaluation mechanism of various schemes should be strengthened and their impact periodically evaluated with reference to achievement of projected outcomes.