

00247

933



सत्यमेव जयते

Performance Audit of the
**Accelerated Irrigation
Benefits Programme (AIBP)**
Ministry of Water Resources



**Report of the
Comptroller and Auditor General of India**

Union Government (Civil)
No. 4 of 2010 - 11
(Performance Audit)

Performance Audit of the
**Accelerated Irrigation
Benefits Programme (AIBP)**

Ministry of Water Resources

Report of the
Comptroller and Auditor General of India

Presented in Parliament On - 7 मई 2010
MAY 2010

Union Government (Civil)
No. 4 of 2010 - 11
(Performance Audit)

THE
SOCIETY OF
MUSICIANS

1887

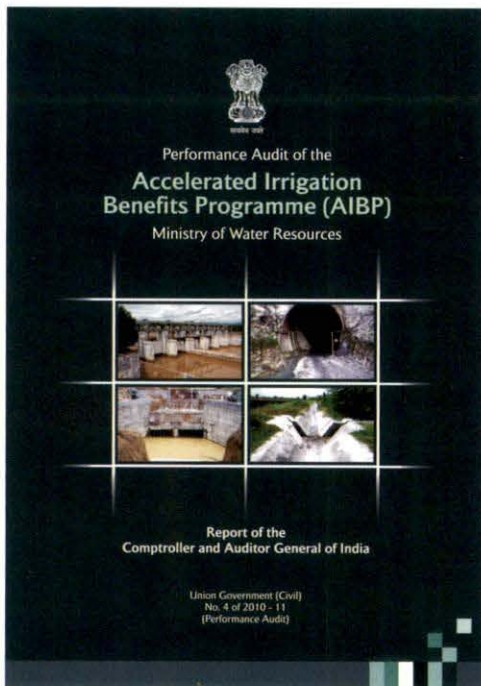
Presented to Parliament by
Command

contents

List of Tables, Boxes, Figures And Charts	ii
Preface	v
Executive Summary	vii
1 An Overview	1
2 Audit Approach, Previous Audit Findings, and Organisation of Current Audit Findings	7
3 Planning	11
4 Project Completion	21
5 Project Execution and Maintenance	39
6 Contractual Management	45
7 Financial Management	51
8 Monitoring and Evaluation	61
9 Conclusion	65
10 State-Specific Findings	67
10.1 Andhra Pradesh	69
10.2 Arunachal Pradesh	77
10.3 Assam	85
10.4 Bihar	91
10.5 Chhattisgarh	99
10.6 Gujarat	103
10.7 Haryana	109
10.8 Himachal Pradesh	113
10.9 Jammu & Kashmir	121
10.10 Jharkhand	127
10.11 Karnataka	133
10.12 Kerala	137
10.13 Madhya Pradesh	143
10.14 Maharashtra	149
10.15 Manipur	157
10.16 Meghalaya	161
10.17 Mizoram	167
10.18 Nagaland	171
10.19 Orissa	175
10.20 Punjab	183
10.21 Rajasthan	187
10.22 Sikkim	193
10.23 Tripura	197
10.24 Uttar Pradesh	201
10.25 Uttarakhand	207
10.26 West Bengal	211

Annexure – I to VIII 219-239

List of Abbreviations 240



List of Tables, Boxes, Figures and Charts

LIST OF TABLES		PAGE NO.
Table 1	Number of AIBP Projects	5
Table 2	Financial Outlay and Expenditure on AIBP	6
Table 3	Projects taken up without Proper Preliminary Reports	15
Table 4	Aspects to be included in the Detailed Project Reports	15
Table 5	Deficiencies in Detailed Project Reports	16
Table 6	Instances of Deficient Calculation of BC Ratio	18
Table 7	Profile of Completed Projects in Audit Sample	24
Table 8	Details of Major/Medium Projects found incomplete/non- commissioned	24
Table 9	State-wise profile of Reasons for Non-Completion	26
Table 10	Key instances of Short creation/Non-utilisation of IP	28
Table 11	Instances of Commencement of Projects without fulfilling pre-requisites	39
Table 12	Instances of Incorrect Phasing of Project Implementation	41
Table 13	Instances of Undue Benefits to contractors	45
Table 14	Instances of Wasteful/Irregular expenditure	47
Table 15	Other Instances of Irregular Contractual Management	49
Table 16	States which availed majority of the Grants under AIBP during 2005-2008	51
Table 17	Profile of completion of projects in six selected states	52
Table 18	Percentage of funds released between 2003-04 and 2007-08	54
Table 19	Rush of Expenditure	54
Table 20	Instances of short release/delayed release of GoI funds by State Governments	56
Table 21	Instances of Diversion of Funds	58

STATE SPECIFIC TABLES		PAGE NO.
Table S1	Status of AIBP projects in Andhra Pradesh sanctioned upto 2004-05	69
Table S2	Variation in IP creation in respect of AIBP projects in Andhra Pradesh	70
Table S3	Incomplete MI Projects test-checked in Andhra Pradesh	72
Table S4	Undue benefits to contractors in AIBP projects in Andhra Pradesh	73
Table S5	Irregularities in Financial Management of AIBP Projects in Andhra Pradesh	74
Table S6	MI Projects in Arunachal Pradesh	77
Table S7	Irregularities in Financial Management of AIBP Projects in Arunachal Pradesh	82
Table S8	Profile of AIBP Projects in Assam	85
Table S9	Status of Major/Medium AIBP projects in Assam	85
Table S10	Irregularities in Financial Management of AIBP Projects in Assam	89
Table S11	Irregularities in Financial Management of AIBP Projects in Bihar	97
Table S12	Irregularities in Financial Management of AIBP Projects in Chhattisgarh	101
Table S13	Irregularities in Financial Management of AIBP Projects in Gujarat	106
Table S14	Irregularities in Financial Management of AIBP Projects in Haryana	110
Table S15	Irregularities in Financial Management of AIBP Projects in Himachal Pradesh	119
Table S16	Irregularities in Financial Management of AIBP Projects in Jammu & Kashmir	124
Table S17	Unsynchronised Execution of Project components in Jharkhand	127
Table S18	Irregularities in Financial Management of AIBP Projects in Jharkhand	131
Table S19	Irregularities in Financial Management of AIBP Projects in Karnataka	134
Table S20	Irregularities in Financial Management of AIBP Projects in Kerala	140

STATE SPECIFIC TABLES		PAGE NO.
Table S21	Irregularities in Financial Management of AIBP Projects in Madhya Pradesh	147
Table S22	Inclusion of new AIBP Projects in Maharashtra	149
Table S23	Inclusion of fractions of Components of projects under AIBP in Maharashtra	150
Table S24	Irregularities in Financial Management of AIBP Projects in Maharashtra	155
Table S25	Irregularities in Financial Management of AIBP Projects in Manipur	159
Table S26	Status of MI Projects in Meghalaya	162
Table S27	Irregularities in Financial Management of AIBP Projects in Meghalaya	165
Table S28	Irregularities in Financial Management of AIBP Projects in Mizoram	168
Table S29	Irregularities in Financial Management of AIBP Projects in Nagaland	173
Table S30	Undue Benefits to contractors in AIBP Projects in Orissa	179
Table S31	Other Financial Irregularities in AIBP Projects in Orissa	180
Table S32	Irregularities in Financial Management of AIBP Projects in Punjab	184
Table S33	Irregularities in Financial Management of AIBP Projects in Rajasthan	190
Table S34	Irregularities in Financial Management of AIBP Projects in Sikkim	195
Table S35	Irregularities in Financial Management of AIBP Projects in Tripura	198
Table S36	Irregularities in Financial Management of AIBP Projects in Uttar Pradesh	205
Table S37	Irregularities in Financial Management of AIBP Projects in Uttarakhand	209
Table S38	Irregularities in Financial Management of AIBP Projects in West Bengal	215

LIST OF BOXES		PAGE NO.
Box 1	Major, Medium and Minor Irrigation Projects	1
Box 2	Computation of BC Ratio	17

LIST OF FIGURES		PAGE NO.
Figure 1	Organisational Setup for AIBP	5
Figure 2	Changes in AIBP Scope and Coverage	11
Figure 3	Changes in Terms of Funding by Centre and States	12
Figure 4	Planning and Approval of Major/ Medium/ ERM Schemes	13
Figure 5	Approval of AIBP MI Projects	13

LIST OF CHARTS		PAGE NO.
Chart 1	Ultimate Irrigation Potential	2
Chart 2	Potential Created and Utilised	2
Chart 3	Cumulative IP Created/ Utilised	2
Chart 4	Number of Major, Medium and ERM Projects	3
Chart 5	Expenditure on AIBP and Non-AIBP Projects during 2002 - 07	6
Chart 6	State-wise profile of Reported Creation of IP under AIBP projects	21
Chart 7	Age-wise Profile of Ongoing AIBP Major/ Medium/ ERM Projects	23
Chart 8	State-wise Profile of Ongoing AIBP Major/ Medium/ ERM Projects	23
Chart 9	Achievement of Monitoring Visits by CWC	61



Preface

This report of the Comptroller and Auditor General of India for the year ended March 2008 containing the results of the Performance Audit of the Implementation of the "Accelerated Irrigation Benefits Programme" has been prepared for submission to the President of India under Article 151 of the Constitution.

The Performance Audit was conducted between May 2008 to September 2008 through test-check of records of the Ministry of Water Resources, CWC and Water Resources/Irrigation Departments and Implementing agencies of the 26 State Governments. The period covered under the audit was 2003-04 to 2007-08.



Executive Summary

Why did the Government of India (GoI) launch the Accelerated Irrigation Benefit Programme (AIBP)?

Responding to a sudden decline during the VIII Plan in the rate of creation of additional Irrigation Potential (IP) and reduced allocation of funds by the States to the irrigation sector, GoI launched the Accelerated Irrigation Benefits Programme (AIBP) in 1996-97 for accelerating the implementation of large major and multi-purpose irrigation projects which were beyond the resource capability of the States, and to complete ongoing major and medium irrigation projects which were in an advanced stage of completion. This was later extended to cover surface water Minor Irrigation (MI) projects in Special Category (SC) States¹, and such projects satisfying specified criteria in other States.

From 1996-97 to 2007-08, 253 major, medium and ERM² projects and 6855 MI projects were approved under AIBP; the Ultimate Irrigation Potential (UIP) of these projects was 10.49 million ha, which represented about 8 per cent of the country's total UIP. During this period, GoI provided funding of Rs. 26,719 crore for such projects – Rs. 16,720 crore in the form of Central Loan Assistance (CLA) and Rs. 9,999 crore as grant.

Why did we decide to conduct a performance audit of AIBP now?

Our earlier audit report on AIBP (No. 15 of 2004) revealed that the progress in completion of AIBP projects and creation of Irrigation Potential (IP) was very poor; many projects had not been taken up or were abandoned mid-way; and there were numerous instances of cost and time over-runs. Further, the programme had been repeatedly modified, resulting in dilution of the original focus; many projects had been injudiciously selected (despite elaborate guidelines), and there were several instances of diversion, parking and misuse of funds, as well as poor contract management.

We decided to conduct a follow-up audit to assess whether the performance of AIBP had improved, and also whether the key issues highlighted in our earlier report had been appropriately addressed. Our audit, which was for the period 2003-04 to 2007-08, covered 70 major and medium irrigation projects and 346 MI projects in 26 States, and involved field audit of the records of the Ministry of Water Resources, the Central Water Commission, the Water Resources/ Irrigation Departments and implementing agencies of the State Governments, and field inspections of the sampled projects.

¹ States in the North Eastern Region (including Sikkim), Jammu & Kashmir, Uttarakhand and Himachal Pradesh

² Extension, Renovation and Modernisation

How is this performance audit report organized?

Chapters 1 and 2 of this report provide background information on AIBP, our audit approach, and the previous audit findings in brief. Chapter 3 to 8 provides overall audit findings on different areas of interest from a national perspective, while Chapter 10 provides detailed audit findings relevant to individual States, with a separate section for each State.

What did our performance audit reveal?

Repeated Modifications in AIBP Guidelines

The scope and coverage of AIBP, as well as funding pattern, were altered successively through six sets of modifications to the AIBP guidelines between October 1996 and December 2006. Reform measures introduced under AIBP, viz. the concept of reforming States (which agreed to revise water rates to cover operation and maintenance charges), and the "fast track" approach for speedy completion of projects, were not satisfactory, and were subsequently abandoned. This trend of repeated modifications was clearly indicative of continued lack of clarity in the focus and objectives of AIBP, which had been pointed out in the earlier Audit Report.

AIBP's Role in Overall Creation and Utilisation of Irrigation Potential

Although AIBP was a significant factor in the reported creation of Irrigation Potential (IP) in the major, medium, and ERM sector (especially since 2003-04), project-wise data regarding actual utilization of potential reportedly created was not furnished either by the Ministry of Water Resources (MoWR) or the Central Water Commission (CWC). Consequently, the contribution of AIBP to IP which was actually utilized could not be ascertained in audit.

The role of AIBP in the Minor Irrigation (MI) sector is relatively small. However, the Ministry did not maintain project-wise details of IP created and utilized under AIBP MI projects and could only furnish lump sum figures of IP created and utilized on a year-wise and State-wise basis. In the absence of detailed data, the authenticity of creation and utilization of Irrigation Potential under individual AIBP MI projects could not be verified.

Poor Progress in Completion of Projects

The status of completion of projects taken up under AIBP continued to be poor. Of the 253 major, medium and ERM projects sanctioned under AIBP between October 1996 and March 2008, only 100 projects were reported as completed. However, of the 70 major and medium projects within our audit sample, while 21 projects were reported as completed, 12 of these "reportedly complete" projects were found to be actually incomplete or non-commissioned. Most of the major and medium projects also suffered from cost and time over-runs.

As regards minor irrigation projects, while about 37 per cent of the projects sanctioned under AIBP were reportedly complete, the authenticity of completion of individual MI projects, as reported by the Ministry, could not be verified in the absence of detailed project-wise data with the Ministry.

The major reasons for non-completion/ delayed completion of projects were non-fulfilment of pre-requisites (acquisition of land, receipt of forest/ environmental and other clearances), delayed construction of railway and highway crossings, and poor tendering and contract management.

Short creation of Irrigation Potential/ Non-utilisation of created Irrigation Potential

Out of 41 major, 29 medium and 346 minor irrigation projects test-checked by Audit, the targeted irrigation potential was not created in 25 major, 19 medium and 189 minor irrigation projects; even the IP reported as created was not being utilized fully. In addition to delayed work execution, one of the main reasons for short creation/ non-utilisation of IP was due to splitting a single irrigation project into two or more projects for approval under AIBP, or dividing a project into AIBP and non-AIBP components; even if the concerned AIBP project was completed, irrigation potential was incapable of being actually utilized due to non-completion / non-functional state of the linked projects.

Deficiencies in Planning and Approval of AIBP Projects

Preliminary reports, which form the first stage in the process for obtaining investment clearance for the irrigation project from the Planning Commission, were deficiently prepared in 11 out of 28 major/ medium projects approved during 2003-08; they were prepared without survey and investigation (and were based exclusively on desk study) or did not assess the anticipated benefits and expected outcomes.

Detailed Project Reports (DPRs) (which form the basis for techno-economic scrutiny and approval of projects) in 14 out of 70 test-checked major/ medium projects were found to be deficient in several aspects – incomplete meteorological and other data like soil surveys and water logging; hydrological aspects like catchment area, monsoon rainfall and annual yield; water availability and need in the command area, 100 years return flood period, ground water potential etc. As regards minor irrigation projects, DPRs for 112 out of 364 test-checked minor irrigation projects were not prepared/ made available and the projects were cleared on the basis of “concept papers” or simple project proposals.

The Benefit Cost Ratio (BCR), which is critical for assessing the economic viability of an irrigation project through detailed assessment of incremental annual benefits and annual costs, was either not assessed at all or overstated (through improper calculation of costs like interest, depreciation, on-farm development cost, maintenance costs, as well as benefits) in 28 major/ medium and 177 minor irrigation projects. Further, in 12 major/ medium and 119 minor irrigation projects, the proposed cropping pattern (which is critical to determination of incremental benefits and BCR) were not adapted in consultation with

Executive
Summary

the State Agriculture Department and were not based on soil surveys of the command area, casting further doubts on the calculated BCR and the economic viability of projects approved under AIBP.

Poor Project Execution

In addition to delays due to non-fulfilment of pre-requisites, one of the main deficiencies in project execution was incorrect phasing of project implementation. Contrary to the guidelines stipulating that the construction programme of various components of major projects was to be appropriately planned on a yearly basis so as to start yielding phase-wise benefits quickly, we found numerous instances of incorrect phasing of project components e.g. dam section incomplete, but main/ branch canals complete or nearly complete; main/ branch canals completed, but work of distributaries and water courses not taken up; main and branch canals constructed in patches, with gaps (particularly in the initial reaches). Consequently, despite incurring of substantial expenditure, the benefits of irrigation water were not fully available to the targeted beneficiaries.

We also found that maintenance of assets created under AIBP were not being accorded due priority, with 3 major, 3 medium and 37 minor irrigation projects having lost their capacity due to silting, weed growth and structural erosion. Further, arrangements for handing over completed projects to farmers/ water users had not been operationalised in 30 major/ medium and 194 minor irrigation projects.

Poor Financial Management

Between 75 to 85 per cent of the AIBP grants released during 2005-06 to 2007-08 were released to just six States (Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, and Orissa). These states were thus, cornering major portion of AIBP grants without corresponding performance in terms of project completion, thus providing an incentive for inclusion of fresh AIBP projects driven by construction work.

We found that the majority of Gol sanctions for release of funds were issued at the fag end of the financial year (last quarter/ March). Further, State Governments did not release the Gol funds in entirety or delayed such release to the implementing agencies well beyond the stipulated period of 15 days; short release of funds amounting to Rs 116 crore were detected. There was a substantial "rush of expenditure" on AIBP projects in the last quarter/ month (March) of the financial year, which was also indicative of poor financial management.

We also found that the Gol had failed to enforce the provisions of the AIBP guidelines for converting the grant component into loan in cases of failure to complete the projects in time in 7 major/ medium projects in Andhra Pradesh and Rajasthan, and 18 minor irrigation projects in Himachal Pradesh. In three States (Gujarat, Himachal Pradesh and Karnataka), the second installment for the State was irregularly released by the Gol before

submission of the Utilisation Certificates (UCs) for the first installment. Further, audited Statements of Expenditure in support of the UCs for each project were not being sent by 12 States³.

We found substantial diversion of funds and other financial irregularities in the AIBP components of the Sardar Sarovar Project (SSP), Gujarat. The State Government overstated expenditure incurred out of AIBP Central Loan Assistance during 2003-05 by Rs. 1158 crore. Even the utilization certificates provided by the Sardar Sarovar Narmada Nigam Limited (SSNNL) for utilization of funds of Rs. 675.20 crore provided by Gol for irrigation benefits to Drought Prone Areas (DPA) were irregular, as the branch canals covered under DPA were already constructed or were under construction when the DPA component was introduced. Our audit scrutiny also revealed other instances of diversion/ parking of funds of Rs. 280 crore in 14 States⁴.

Poor Contractual Management

Our audit scrutiny revealed grant of undue benefits to contractors amounting to Rs. 186.89 crore in 14 States, as well as cases of unauthorised/ irregular expenditure of Rs. 403.83 crore in 17 States. In addition, other cases of irregular contractual management were also detected in 12 major/ medium and 28 minor irrigation projects.

Monitoring and Evaluation

The Central Water Commission (CWC) was required to carry out monitoring visits to major/ medium projects at least twice a year. We found that the actual percentage of monitoring visits ranged from 66 to 73 per cent during 2002-08. As regards monitoring of minor irrigation projects, a "sample" of such project was to be checked by the CWC. However, we found that CWC had made monitoring visits to only 57 minor irrigation projects in 10 States, which constituted a negligible proportion of the 8699 minor irrigation projects sanctioned under AIBP. The monitoring of AIBP projects at the State and Project levels was also deficient.

An evaluation study, covering AIBP projects in 28 States with data upto September 2004, had been got conducted by the Ministry of Statistics and Programme Implementation (MOSPI); however, efforts for circulating the report of the study to the States/ implementing agencies for necessary remedial action had not been undertaken. Also, Remote Sensing Technology (RST) had not been used in most States to monitor the progress of AIBP Projects.

³ Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Mizoram, Nagaland, Rajasthan, Uttar Pradesh and West Bengal

⁴ Assam, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Manipur, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tripura and Uttar Pradesh

What do we recommend?

1. There has been significant dilution in the focus and objectives of AIBP due to repeated modifications (six sets of modifications since its inception in 1996-97) in the scope and funding pattern of the scheme. Consequently, Gol must have a long-term perspective of AIBP in the programme guidelines, and avoid repeated and piecemeal modifications in an ad hoc manner.
2. The Ministry must institute a system to collect authentic and validated data of not only creation, but also utilisation of IP for AIBP projects in the major/medium/ ERM and MI sector at least for a period of five years after the completion of the projects.

The role of AIBP in funding a large number of individual MI projects with miniscule IP needs to be re-examined, particularly in view of the lack of monitoring and data collection by both the Ministry and CWC.

3. MoWR must investigate all cases of incomplete/ non-commissioned projects reported as complete to ensure that there is no diversion or misuse of funds released for these projects. Appropriate action must also be taken against the authorities issuing such false completion certificates.
4. Since AIBP is an Additional Central Assistance (ACA) programme, Gol may ensure equitable distribution of AIBP funds to states based on predefined criteria e.g. population dependent on agriculture, UIP yet to be fulfilled; and also past performance in completion/commissioning of projects and utilisation of targeted IP under AIBP.
5. In order encourage the defaulting State Governments to ensure timely completion of projects, Gol must apply the provision for conversion of grant to loan in all cases of serious slippages in completion schedule, as provided for in the MoU.
6. Gol may recover the amounts diverted by the State Governments, if necessary, by making deductions from the next instalment of Plan Assistance to the defaulting State Governments.
7. The major reasons for non-completion of major/ medium/ ERM projects include (a) non-acquisition of land; (b) delays in construction of railway/ highway crossings; (c) improper synchronisation of project components (dealt with elsewhere in this Report), and (d) delayed tendering and contract management. While we note that acquisition of land is a complex and sensitive process, Gol funds should be released only after the State Government certifies that the major portion of the land required for the project (not just for the dam/ headworks but also for the canals) has already been acquired. Further, future releases should be linked to progress in land acquisition.

Better co-ordination with railways and NHAI is required for quick completion of crossings.

8. In case of irrigation projects which have been split into two or more AIBP projects or which have been separated into AIBP and non-AIBP components, MoWR should ensure

that linked components of AIBP projects are completed, so as to ensure the creation of targeted IP under AIBP, and commissioning/utilisation thereof.

9. Survey and investigation may be ensured in respect of all preliminary reports for investment clearance; these cannot be based only on desk study.

Formal DPRs may be insisted upon for all minor irrigation projects; concept papers or equivalents should not be treated as sufficient.

AIBP guidelines and the Planning Commission's investments clearance lay great stress on Benefit Cost Ratio (BCR) so as to provide assurance regarding the economic viability of the project. In this context, the MoWR must ensure that BCRs for all projects are properly calculated, based on validated and verifiable data and assumptions relating to costs, revenues, cropping patterns etc.

10. To tackle the problem of incorrect phasing of project implementation e.g. dam section incomplete, but main and branch canals completed or nearly complete; main/ branch canals completed, but work of distributaries/ water courses not taken up or at a very preliminary stage; main/ branch canals constructed in patches, with gaps (particularly in the initial stages), creation of irrigation potential should be recognized by MoWR/CWC only where (a) there are no gaps in the main/ branch canals, and water is capable of flowing right through the sections recognized for creation of IP; and (b) not just the main/ branch canals, but also all associated minors and distributaries have been completed.
11. In order to ensure that funds provided under AIBP do not go waste due to poor maintenance of assets created under AIBP, MoWR may ensure that before approving a project for AIBP funding, the State Government provides a formal undertaking to ensure adequate resources for its maintenance for the next ten years. Further, MoWR/ CWC may consider instituting a system to assess the actual quality of maintenance of Major/ Medium AIBP projects post-completion.
12. In order to maintain the sanctity of the budgeting process, MoF/MoWR must ensure release of AIBP funds well in time, and not in the last quarter or in March.
13. Gol may take up the matter with the concerned State Governments to avoid short release and delayed release of AIBP funds to the implementing agencies. Further, a system should be put in place for monitoring releases on a project-wise basis.
14. The Ministry/ CWC should ensure that the stipulated monitoring visits twice a year to all major and medium projects are carried out without fail. As regards minor irrigation projects, a reasonable sample of projects should be inspected by the Ministry/ CWC; if CWC is unable to carry out such inspections, the Ministry may consider hiring its own consultants for such inspections.



Accelerated Irrigation Benefits Programme (AIBP)

- An Overview

1.1 Irrigation

The Ultimate Irrigation Potential (UIP) of the country has been estimated by the Ministry of Water Resources (MoWR) at 139.9 million hectare (ha)¹. Against this, the Irrigation Potential (IP) created till the end of the X Plan was estimated at 102.77 million ha, of which 87.23 million ha had reportedly been utilized. With an average irrigation intensity of 140 per cent, the actual net irrigated area is estimated by the Planning Commission at around 62.31 million ha, which is only 43 per cent of the net sown area of the country of 142 million ha.

Box 1 Major, Medium and Minor Irrigation Projects

Major irrigation projects are those projects creating irrigation potential of more than 10,000 ha of Culturable Command Area (CCA). Medium irrigation projects involve creation of irrigation potential of 2,000 to 10,000 ha of CCA, while minor irrigation (MI) projects involve creation of irrigation potential of less than 2,000 ha of CCA.

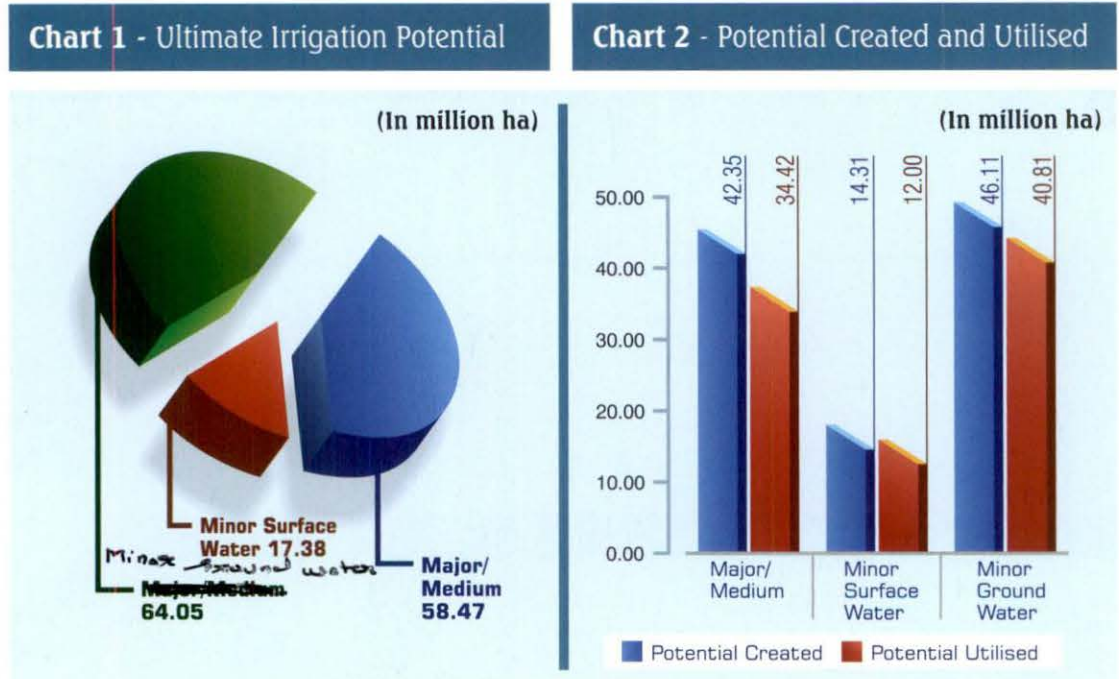
CCA is the area that can be reliably irrigated from a project and is fit for cultivation. In the case of multiple cropping, the area is computed as many times as the number of crops grown and irrigated in a year.

¹ Without inter-basin sharing of water

Chapter - 1

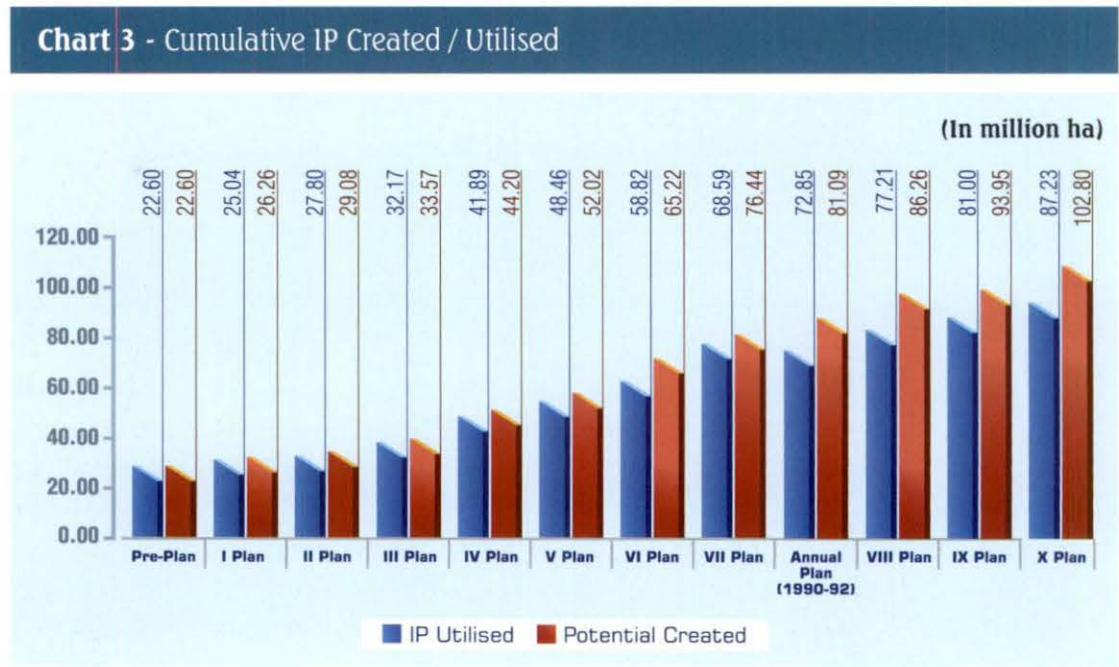
Accelerated Irrigation Benefits Programme (AIBP)

A profile of the UIP, and potential created and utilized is given below:



(Source: XI Five Year Plan; includes anticipated potential created/ utilized for X Plan)

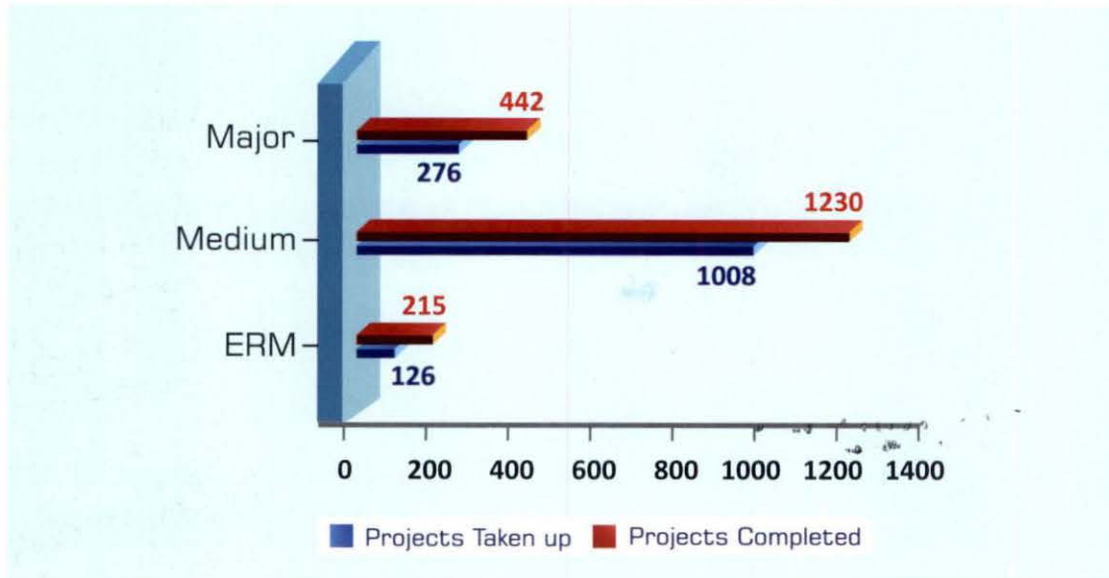
The build-up of creation of irrigation potential during the various Plan periods is summarized below :



(Source: XI Five Year Plan; includes anticipated potential created/ utilized for X Plan)

In numerical terms, 1887 major, medium, and ERM² projects were taken up, of which 1410 projects were reported as completed³, as summarized below:

Chart 4 - Number of Major, Medium and ERM Projects



(Source: Report of the Working Group on Water Resources for the XI Plan)

1.2 Initiation of AIBP

Under the Constitution, water (including irrigation) falls in the State list of subjects and the powers of the Government of India (GoI) are limited to regulation and development of inter-State rivers to the extent necessary in the public interest.

However, the rate of creation of additional irrigation potential, which was 2.04 million ha per annum from the starting of the VI Plan in 1980 to the end of the rolling plan in 1992 came down sharply to 1.03 million ha per annum during the VIII Plan. Responding to this sudden decline in the rate of creation of irrigation potential as well as allocation of funds to the irrigation sector in the States' Annual Plans, the GoI launched the Accelerated Irrigation Benefits Programme (AIBP) in 1996-97 as an Additional Central Assistance (ACA) programme for accelerating the implementation of large major and multi-purpose irrigation projects which were beyond the resource capability of the States, and to complete ongoing major and medium irrigation projects which were in an advanced stage of completion. This was later extended to cover surface water minor irrigation projects in Special Category⁴ (SC) States, and such projects satisfying specified criteria in other States.

² ERM : Extension, Renovation and Modernisation

³ This includes pre-Plan projects and projects in various Plan periods.

⁴ States in the North Eastern Region (including Sikkim), Jammu & Kashmir, Uttarakhand and Himachal Pradesh

Chapter - 1**Accelerated
Irrigation
Benefits
Programme
(AIBP)****1.3 Scope and Coverage of AIBP**

The scope and coverage of AIBP, as well as the terms of assistance, have undergone several amendments from time to time. From December 2006 onwards, AIBP's coverage is as follows:

- Major, medium and ERM projects cleared by the Planning Commission, which are in an advanced stage of construction, and not receiving any other form of financial assistance, and which can be completed in the next four financial years, are covered. A “one for one” condition is stipulated, whereby fresh projects in a state can be included under AIBP only on completion of ongoing projects, with exceptions being made for projects in drought-prone and tribal areas, districts identified under the Prime Minister's package for agrarian distress, and States with lower irrigation potential than the national average.
- Surface Minor Irrigation (MI) projects in the SC States and drought-prone KBK⁵ Districts of Orissa are fully covered, provided they have a Benefit Cost Ratio (BCR) of more than 1:1 and a development cost of less than Rs. 1.5 lakh/ ha. MI projects in other States serving tribal and drought areas could also be covered. The minimum coverage under MI schemes is 20 ha for individual schemes/ 50 ha for group schemes in SC States, and 50 ha in other States.

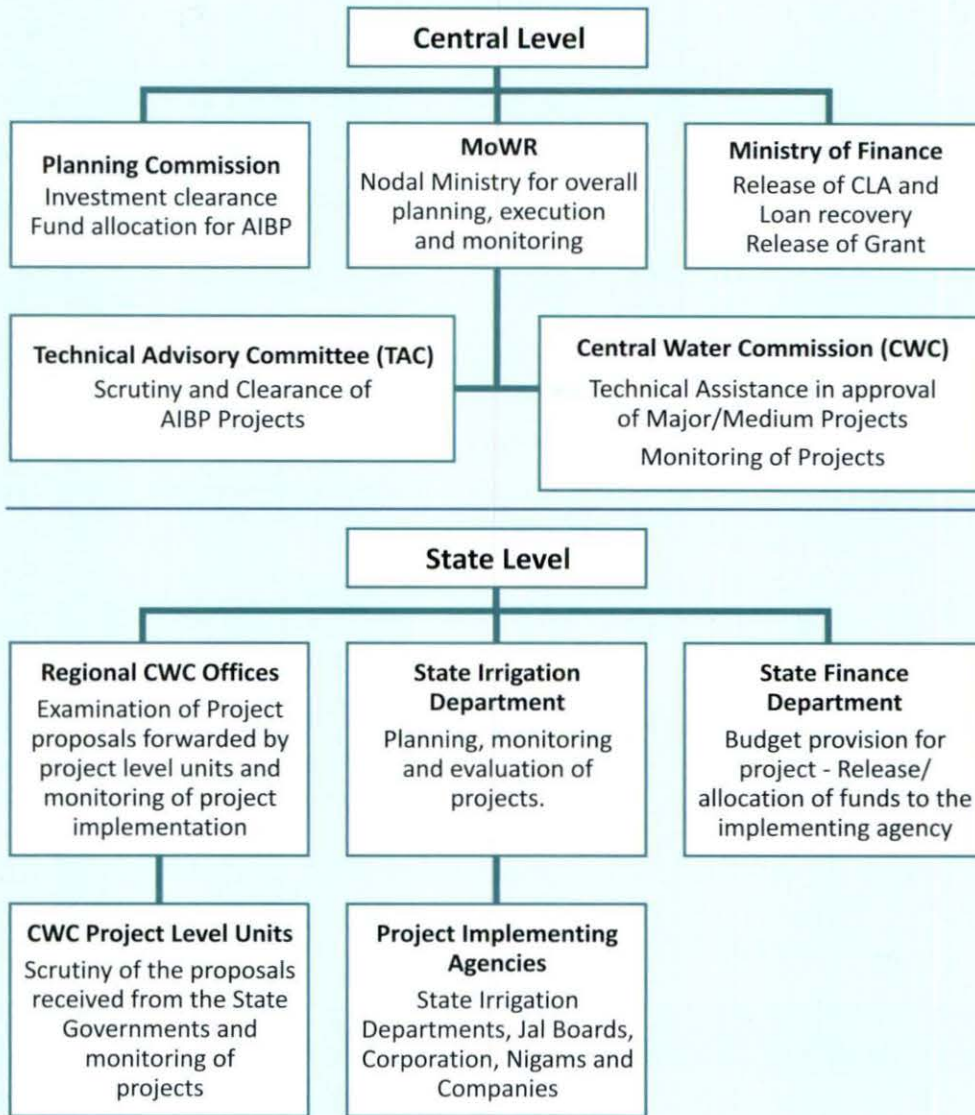
1.4 Funding Pattern

The funding pattern of projects under AIBP has also undergone several changes from time to time. From December 2006 onwards, grant is provided at the rate of 90 per cent of the project cost for projects in Special Category States, KBK Districts and tribal, drought prone and flood prone areas, while for other projects, the grant is 25 per cent of the project cost. The grant is released on a year-wise basis, with funding for subsequent years based on receipt of Utilisation Certificates (UCs) for past years. 90 per cent of the grant is released in advance, with the remaining 10 per cent on reimbursement basis.

1.5 Organisational Setup

The nodal ministry in the GoI for AIBP is the Ministry of Water Resources (MoWR). A chart depicting the role of various authorities at the Central and State level in planning, funding, and executing the programme is given below:

⁵ Areas falling under the erstwhile Koraput, Bolangir, and Kalahandi Districts of Orissa

Figure 1 - Organisational Setup for AIBP


1.6 Projects approved under AIBP

A summary of the major, medium and minor irrigation projects approved under AIBP is given below:

Table 1 - Number of AIBP Projects

Period	Major, Medium and ERM Projects	Minor Irrigation (MI Projects)
1995-96 to 2002-03	172	2963
2003-04 to 2007-08	81	3892
Total	253	6855

A list of Major, Medium and ERM Irrigation Projects covered under AIBP is given in **Annexure-1**.

Chapter - 1Accelerated
Irrigation
Benefits
Programme
(AIBP)**1.7 Financial Outlay and Expenditure**

A profile of funds released under AIBP, and expenditure reported there against is given below:

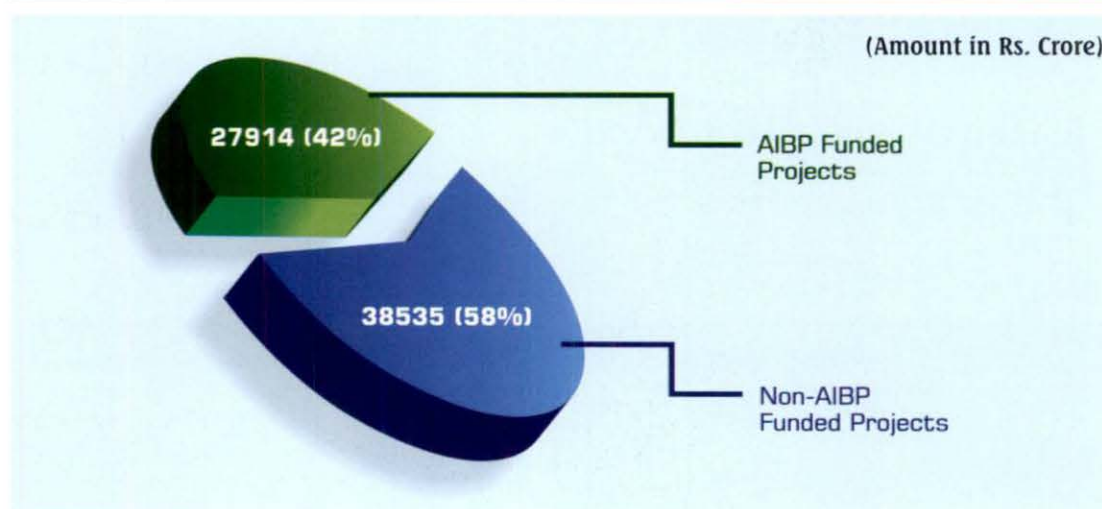
Table 2 - Financial Outlay and Expenditure on AIBP**(Amount in Rs. Crore)**

Period	Central Share Released			State Share Released	Total Releases	Reported Expenditure
	Central Loan Assistance (CLA)	Grant	Total			
1995-1996 to 2002-03	11,542	-	11,542	7,364	18,906	13,823
2003-04 to 2007-08	5,178	9,999	15,177	6,910	22,087	17,368
Total	16,720	9,999	26,719	14,274	40,993	31,191

(Source: Central releases (CLA and grant) are based on the records of the Ministry and CWC, while figures of States' share and reported expenditure have been compiled from information provided by the State Governments to the State Accountants General.

(It may be noted that details of releases of State Share and reported expenditure for all projects were not provided to audit by the Governments of Andhra Pradesh and Maharashtra, as they were reportedly not maintained). Details of state-wise releases and reported expenditure during 2003-08 are given in **Annexure-II**.

AIBP was a significant source of funding for all major/ medium/ ERM projects. Out of the total expenditure during 2002-07 on all major/ medium/ ERM projects of Rs. 66,449 crore, expenditure on AIBP funded projects amounted to Rs. 27,914 crore (42 per cent) as shown below:

Chart 5 - Expenditure on AIBP and Non-AIBP Projects during 2002-07

Audit Approach, Previous Audit Findings and Organisation of Current Audit Findings

2

2.1 Audit Approach

2.1.1 Audit Objectives

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

- The programme was well-designed, and the investment focus and priorities were well-defined and managed.
- Projects taken up under AIBP were completed within the stipulated time and cost, and the Irrigation Potential targeted under AIBP was actually created and effectively utilised.
- The process for planning and approval of new projects was adequate and effective, and the AIBP guidelines were fully complied with.
- Adequate funds were released on time and were properly utilised.
- The desired Benefit Cost Ratio (BCR) was achieved, and the actual BCR was properly evaluated and assessed.
- Individual projects were executed in an economical, efficient, and effective manner.
- The mechanism for monitoring and evaluation of AIBP projects was adequate and effective.

Chapter - 2

Audit Approach, Previous Audit Findings and Organisation of Current Audit Findings

2.1.2 Audit Scope and Sample

The performance audit covered 26⁶ States for the period from 2003-04 to 2007-08. The audit sample covered 70 major, medium and ERM irrigation projects, and 346 minor irrigation projects; these projects were chosen using “Simple Random Sampling without Replacement (SRSWOR)”. Details of the audit sample are indicated in **Annexure – III**.

2.1.3 Audit Criteria

The main sources of audit criteria for the performance audit were:

- The AIBP guidelines, as amended from time to time;
- Guidelines issued by CWC for preparation of Detailed Project Reports (DPRs);
- Instructions issued by MoWR and CWC; and
- DPRs of the test-checked projects.

2.1.4 Audit Methodology

The performance audit commenced with an entry conference with the MoWR in May 2008, wherein the audit methodology, scope, objectives and criteria were explained. During the meeting, the MoWR also made a presentation on the status of AIBP.

Field audit of the records of the MoWR, CWC, and Water Resources/ Irrigation Departments and implementing agencies of the State Governments and field inspections (including photographs) of the test-checked projects were conducted between May 2008 and September 2008.

The draft audit report was issued to the Secretary, Ministry of Water Resources in August 2009, requesting for written responses/ comments within six weeks and also the holding of an exit conference to discuss the main audit findings (as per standard audit practice). However, till January 2010, despite the issue of written reminders to the Ministry, no response was received from the Ministry, nor could an exit conference be scheduled. Exit conferences to discuss State-specific findings were, however, held with 14 State Governments between September 2008 and May 2009.

Audit acknowledges the co-operation and assistance extended by the Ministry of Water Resources, the Central Water Commission, and the State Governments and their implementing agencies during the course of the performance audit.

⁶ Goa and Tamil Nadu were not covered in the Performance Audit.

2.2 Previous Audit Findings

AIBP was previously reviewed in audit and findings reported through the CAG's Report No. 15 of 2004 (Union Government – Performance Appraisal). The main findings of the earlier audit were as follows:

- There were ambiguities in the programme guidelines, and the programme was successively modified, resulting in relaxation of criteria for selection of projects, and dilution of the original focus.
- As of March 2003, only 23 out of the 172 projects covered under the programme had been completed; none of the 29 projects selected for completion through the “fast track” had been completed. Of the 10 inter-State projects, only one project had been completed.
- Only 28 per cent of the envisaged irrigation potential could be created, and only 11 per cent could be utilized. The poor programme performance was also reflected in high Development Cost per hectare, and low Benefit Cost Ratio (BCR).
- Despite elaborate guidelines, selection of several projects was injudicious, and projects outside the scope of AIBP and projects not fulfilling pre-requisites were selected.
- Many approved projects had not been taken up by the State Governments or were abandoned mid-way. There were also numerous instances of cost and time over-runs. However, funds requirement was not the only reason for the languishing of projects.
- There were several instances of diversion, parking and misuse of funds, as well as poor contract planning and management.
- Monitoring and evaluation of AIBP projects was inadequate.

In the Action Taken Note (ATN) of 2008-09 on the findings of the previous Performance Audit Report, the MoWR indicated that it had initiated the following steps:

- Evaluation of AIBP had been stepped up, and the Planning Commission was carrying out an evaluation of the programme.
- The monitoring mechanism of the CWC was now quite effective, as CWC was monitoring the progress of Major and Medium Irrigation projects through actual field visits, discussions with concerned State Government officers, and review of the physical and financial reports from the States.

Chapter - 2

Audit
Approach,
Previous Audit
Findings and
Organisation
of Current
Audit Findings

- From December 2006, the MoUs with the State Governments contained physical targets of the potential created on a year wise basis. The pre-defined targets were being examined by the CWC during field visits, and while releasing installments of AIBP funds.
- Monitoring of utilization of IP was not covered in the programme, as the utilization did not start immediately in many projects, and usually took two to three years, due to various reasons.
- The delay in completion of projects was caused by various reasons which were beyond the control of the project executing agency and the Central Government.
- There were built in safeguards in the AIBP guidelines which ensured that if the State Government failed to utilize central assistance along with the state share, no further Central Assistance would be released to the State Government.

However, as detailed in this Performance Audit Report, most of the deficiencies pointed out in the earlier Audit Report continued to persist, and AIBP had still not achieved its targeted objective of accelerating completion of large irrigation projects and delivering the benefits of irrigation water to the farmers.

2.3 Organisation of Current Audit Findings

The findings from the current Performance Audit have been categorized into two sections:

- Overall Audit Findings – In this section, different areas of interest have been analysed from a nation-wide perspective, and only brief, summary information on findings in different States has been provided.
- State-specific findings – In this section, detailed findings, amplifying the overall audit findings, have been presented state-wise.



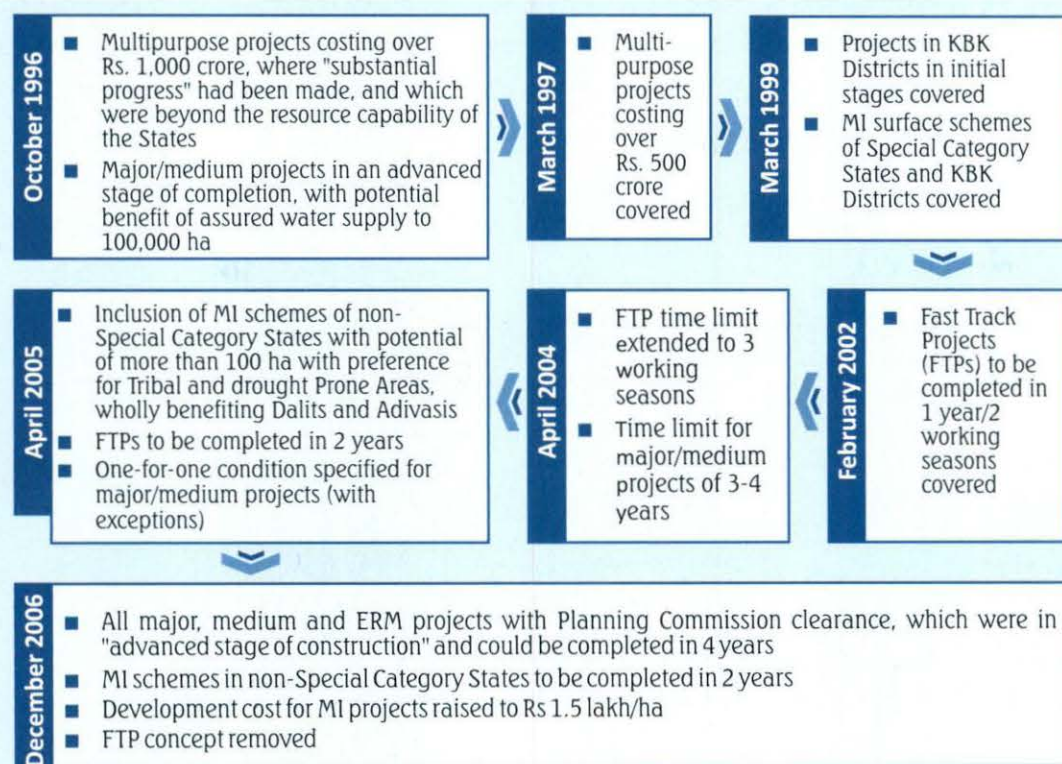
Planning

3

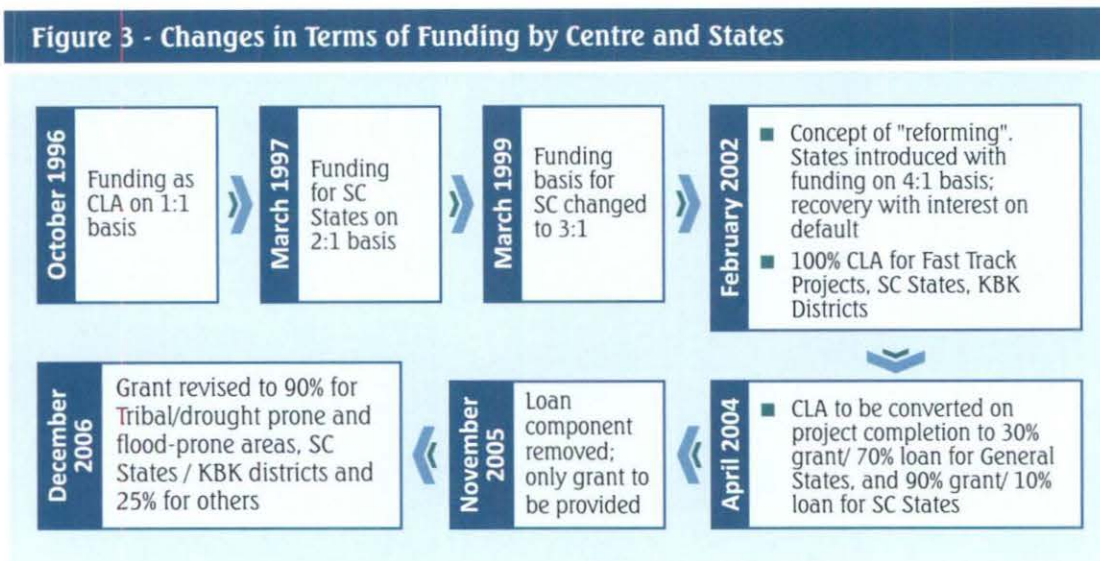
3.1 Successive Modifications in AIBP Guidelines

The scope and coverage of AIBP had undergone numerous amendments from its inception in October 1996 to December 2006, as summarized below:

Figure 2 - Changes in AIBP Scope and Coverage



Likewise, the funding pattern for projects under AIBP had also undergone numerous changes, as summarized below:



The earlier Audit Report on AIBP (No. 15 of 2004) had highlighted the use of nebulous terms such as "substantial progress", "advanced stage", and "beyond the resource capability of a State" in the guidelines for selection of projects under AIBP, as well as the successive modifications of AIBP guidelines in 1997 and 1999 on the grounds of extending benefit to more States, which resulted in relaxation of criteria and dilution of AIBP's original objectives.

This trend of modifications to AIBP guidelines continued further upto December 2006. Further, the XI Plan confirmed that the results of reform measures introduced under AIBP (such as revision of water rates to cover Operation and Maintenance charges) were not satisfactory, because of the sluggish efforts of the State Governments to comply with the reform measures and also because the incentive to State Governments was not attractive enough to carry out the reforms.

This trend of modifications to AIBP guidelines was clearly indicative of continued lack of clarity in the focus and objectives of AIBP, which had been pointed out in the earlier Audit Report.

✓ Recommendation - 1

There has been significant dilution in the focus and objectives of AIBP due to repeated modifications (six sets of modifications since its inception in 1996-97) in the scope and funding pattern of the scheme. Consequently, GoI must have a long-term perspective of AIBP in the programme guidelines, and avoid repeated and piecemeal modifications in an ad hoc manner.

3.2 Overview of Approval Process

The processes for approval of major/medium/ ERM projects and MI projects under AIBP are depicted below, in brief:

Figure 4 - Planning and Approval of Major/ Medium/ ERM Schemes

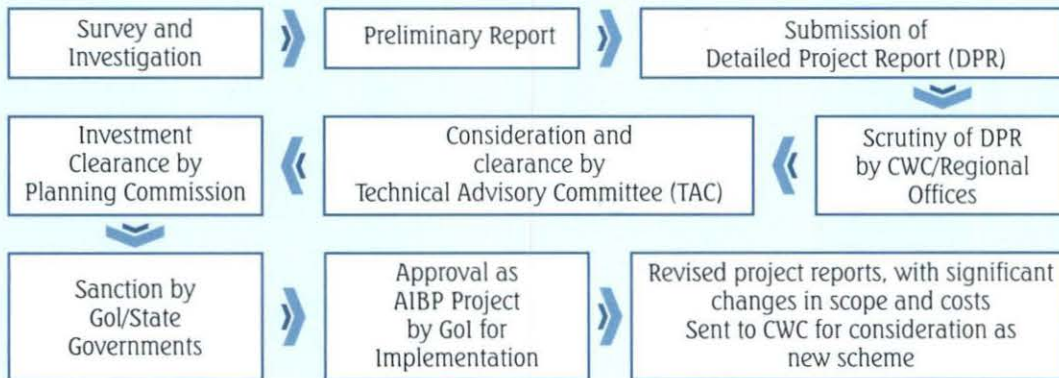


Figure 5 - Approval of AIBP MI Projects



3.3 Irregular Selection of MI Projects

Audit Scrutiny revealed that 13 out of 346 MI projects in the audit sample were irregularly selected, as detailed below:

- In Arunachal Pradesh, although the modification and improvement works to existing projects are not allowed as fresh AIBP projects, investment clearance was given by Planning Commission/ MoWR to five such projects⁷ in two divisions.
- In Mizoram, despite the fact that the topographical and geographical condition of the areas falling under the three divisions were similar, there was wide variation in the projected cost per ha of the seven projects of the three divisions, which ranged between Rs.1.52 lakh per ha to Rs.2.92 lakh per ha. Moreover, sanctioning of projects with cost per ha of more than Rs. 1 lakh (revised to Rs.1.5 lakh in December 2006) was in contravention of the AIBP guidelines.

⁷ Improvement and Renovation of Sigo Nallah MIP at Ngorlung, Renovation of Head work of Gagur MIP at Niglok, Improvement & Renovation of Suli Tali MIP at Mottum Sigar Area, Improvement and Renovation of Sipir MIC at Ayeng village, Improvement & Modification of Lipa Gai (Hong), Sipu (Old Ziro) and Kohi Bogo (Tajang Kley).

- In **Jammu & Kashmir**, one scheme (Unis Ujroo khul) which was already receiving finance from Rashtriya Sam Vikas Yojna (RSVY) was irregularly approved and funded under AIBP.

Besides, 82 other schemes (not falling within the original audit sample) were also found to be irregularly selected, as detailed below:

- In **Manipur**, 15 MI Projects⁸ out of 211 MI Projects sanctioned during 2005-06, which were shown to have been completed in March 2007, were again included in the list of 242 new projects sanctioned afresh in 2007-08.
- In **Uttarakhand**, 15 MI individual Schemes⁹ were selected where the CCA was less than 20 ha, and 50 group schemes within radius of 5 Km. were selected where the CCA was less than 50 ha; this was in violation of AIBP guidelines.
- In **Jammu & Kashmir**, two schemes (Suel canal and Noorabad canal) which were already receiving finance from NABARD were approved and funded under AIBP.

3.4 Deficiencies in Preliminary Reports

The first stage in the process for obtaining investment clearance from the Planning Commission is the preparation by the State Government of a preliminary report, based on which CWC gives in-principle consent for preparation of a DPR. This report should be based on survey and investigations and collection of information, and should cover the following aspects:

- General data and planning;
- Inter-State and international aspects;
- Survey and investigations (including geological, seismic, foundation, hydrological and meteorological investigations, and construction material survey);
- Hydrology;
- Drinking water requirements;
- Irrigation planning and planning for other intended benefits; and
- Environmental and ecological aspects.

⁸ Construction of weir at Murri (Joyland), MI Scheme at Sinjawl Tuijen, Construction of weir over Itok River at Chandrakhong, Construction of weir at Borayangbi across Sandangkhong Stream, Construction of pucca canal of RLI Scheme at Kumbi Setupur, Construction of weir across Laiki river at Kameng, M.I. Scheme at Matalaisang, Construction of M.I. Canal at Wangkhei Payeng Loukon (Thanga Lawai), Construction of weir across Leingangklok River at Namthajang, Construction of weir at Oksu, Construction of weir across Tuining River Khongkaijang Village, Construction of weir at Elang Chingjin, Construction of Dam across Lalkhan at Ningthou Latingkhal, Construction and fixing of steel regulator at Magujang Maril and Construction of weir across Honia river at Thiwa Village.

⁹ Patal-I (Chondli), Pudiyani, Khageli, Chhoiya (Nauti), Dhungerh (Chondli), Patal-II (Chondli), Jangal chatty, Rithya, Kulagad, Siddhi bandakhera, Nazibabad, Devaria, Anand nagar, Tiliyapur and Bhagauri-II.

However, out of 28 test-checked major/medium projects approved during 2003-08, audit scrutiny revealed that preliminary reports were prepared without survey and investigation, and were hence inadequate (being based exclusively on desk study) in respect of 7 major projects and 1 medium project in Andhra Pradesh, Bihar, Haryana, Jammu & Kashmir and Maharashtra (6 States). Further, in 3 major and 2 medium projects in Andhra Pradesh, Bihar, Maharashtra and Punjab (4 States), the anticipated benefits and expected outcomes were not assessed in the preliminary report. Details are given below:

Table 3 - Projects taken up without Proper Preliminary Reports

State	Projects without survey/ investigation	Project Cost (Rs. in Crore)	Projects where anticipated benefits/ outcomes were not assessed	Project Cost (Rs. in Crore)
Andhra Pradesh	Sri Ram Sagar Project Stage – I	2954	Khomarambhim Project	274
Bihar	Western Kosi Canal Project	1082	Western Kosi Canal Project	1082
Hayana	Balance works of WRCP	1858	—	—
Jammu and Kashmir	Modernization of Ranbir Canal	176	—	—
Maharashtra	Krishna Major project	648	Nandur Madhmeshwar Project	866
	Nandur Madhmeshwar Project	866	Arunavati River Project	225
	Patgaon Medium Project	81	—	—
Punjab	—	—	Remodelling of U.B.D.C.Channels	178
Uttar Pradesh	Hardoi Branch System	105	—	—

3.5 Deficient Detailed Project Reports

3.5.1 DPRs for Major/ Medium Projects

In terms of the “Guidelines for submission, appraisal and clearance of Irrigation and Multipurpose Projects - 2002” issued by the CWC, the DPRs should be prepared in accordance with the applicable Indian Standard and guidelines issued by the MoWR and CWC, and should include the following broad aspects:

Table 4 - Aspects to be included in the Detailed Project Reports

Contents	Brief Description
Physical features	Details of geographical disposition, topography and geology of the basin, reservoir and command area, river system and basin characteristics
Interstate/international aspect(s)	State/countries traversed by the river, distribution of catchments therein, effects of interstate/international agreements etc.
Surveys and investigations	Surveys and investigations carried out for the various alternatives considered to justify the final choice of the location and types of various components of the projects

Chapter - 3

Planning

Contents	Brief Description
Hydrology	Hydrologic inputs to the project planning, simulation and performance testing of alternative plans, effect of project development on hydrologic regime, design flood etc.
Design feature & criteria for different river valley structures	Details of structure and layout, dams, barrages, canals, canal structures and power house
Revenues	Information relating to yearly programme of development, total income from various sources of revenue, water rates, power rates, administrative charges etc.
Benefit – Cost Ratio and financial return	Details of estimation of annual benefits and annual cost for the irrigation and flood control component of the project and calculation of BCR as annual benefits/annual costs.
Environmental and ecological aspects	Environmental aspects of site selection, physical aspects etc.
Financial resources & estimates	Aspects relating to total resources of the State, provision for the sector/scheme, central / foreign aid contemplated, if any, and detailed estimates for various items covered under different sub heads
Flood control and drainage	Details of issues like flood data, flood damage, flood control measures, drainage, cultivation practices etc.
Irrigation planning	Details of existing and proposed irrigation facilities, existing cropping pattern, soil surveys, water planning etc.

Audit scrutiny revealed that in 14 out of 70 test-checked major and medium projects, the DPRs were found to be deficient as a number of important aspects were missing/ neglected as detailed below:

Table 5 - Deficiencies in Detailed Project Reports

S.No.	Aspect of the DPR	Major/ Medium Projects	States
1.	The project plan did not contain all salient features such as check list, maps and all other necessary components such as land, works, bridges, tanks, minors etc.	Sriramsagar Stage-I, Mahi Bajaj Sagar, Teesta Barrage Project, Hanumata Irrigation Scheme and Patloi Irrigation Scheme	Andhra Pradesh, Rajasthan and West Bengal (3 States)
2.	Meteorological and other data like soil surveys, socio-economic benchmark survey, engineering surveys, water logging, salinity and drainage for on farm development of works.	Sriramsagar Stage-I, Sone Canal Modernisation, Western Kosi Canal Project, Mukteshwar Project, Nandur Madhmedhshwar, Sangola Branch Canal, Patgaon, Improving Irrigation intensity of Hardoi Branch System, Teesta Barrage Project, Hanumata Irrigation Scheme and Patloi Irrigation Scheme	Andhra Pradesh, Bihar, Gujarat, Maharashtra, Uttar Pradesh, and West Bengal (6 States)
3.	Aspects like exact location of the project, hydrology aspects such as catchment area, monsoon rainfall, annual yield etc.	Sone Canal Modernisation, Modernisation of Ranbir Canal, Teesta Barrage Project, Hanumata Irrigation Scheme and Patloi Irrigation Scheme	Bihar, Jammu & Kashmir & West Bengal (3 States)

S.No.	Aspect of the DPR	Major/ Medium Projects	States
4.	Aspects like the length of main canals, types etc, in canal system cases, and in financial matters, the estimated cost, benefit cost ratio, cost of live storage, cost of annual irrigation etc	Sone Canal Modernisation, Patgaon, Mahi Bajaj Sagar, Teesta Barrage Project, Hanumata Irrigation Scheme and Patloi Irrigation Scheme	Bihar, Maharashtra, Rajasthan & West Bengal (4 States)
5.	Assessment of water availability and its need in the Command Area, and other aspects like dependable yield, 100 years return flood period, ground water potential, etc.	Champamati Irrigation Project, Western Kosi Canal Project, Improving Irrigation intensity of Hardoi Branch System, Teesta Barrage Project, Hanumata Irrigation Scheme and Patloi Irrigation Scheme	Assam, Bihar, Uttar Pradesh & West Bengal (4 States)
Total		14	

3.5.2 DPRs for MI Projects

Audit scrutiny of 346 MI projects approved during 2003-08 revealed that the DPRs were not prepared/ made available to audit and the projects were cleared on the basis of Concept Papers¹⁰ or simple project proposals in 112 MI projects in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Maharashtra, Meghalaya, Nagaland, Sikkim and Tripura (9 States).

3.6 Wrong Computation of Benefit Cost Ratio

Box 2 Computation of BC Ratio

The Benefit Cost Ratio (BC Ratio) is one of the most important aspects needed for assessing the economic viability of the project. For an irrigation project, $BC\ Ratio = \frac{\text{Annual Benefits}}{\text{Annual Cost}}$.

Annual Benefits: are computed by taking in to account the agriculture production in the area to be irrigated under pre-project conditions and agriculture production in the area after completion of the irrigation projects.

Annual Cost: includes interest on the estimated cost of the project (including the cost of land development), operation and maintenance cost, depreciation of the project based on the estimated life of the project, maintenance of the head-works, depreciation of the pumping system and rising main (in lift canal systems), charges for power etc.

¹⁰ Concept paper contains a brief description of the project indicating location of the project, Culturable Command Area (CCA), Annual Irrigation Area (AIA), length of canal, targeted irrigation potential, cropping pattern, projected BC Ratio, abstract of project cost, index map etc.

Audit scrutiny of 41 Major, 29 Medium and 346 MI projects revealed that:

- The BC Ratios in 18 Major, 10 Medium, and 177 Minor test-checked Irrigation Projects were either not assessed at the time of preparation of DPR, or were not assessed/ calculated correctly by taking into account the applied cost, value, rates, interest, depreciation, charges etc. in Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Sikkim, Uttar Pradesh, Uttarakhand and West Bengal (17 States).
- In 12 Major/ Medium and 119 MI Projects, the proposed cropping patterns were not adopted in consultation with the State Agriculture Department and were not based on soil surveys of the command area in Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Karnataka, Manipur, Mizoram, Nagaland, Orissa, Uttar Pradesh and Uttarakhand (14 States).

Details of audit observations on deficient and irregular calculation of BC Ratio are summarised below:

Table 6 - Instances of Deficient Calculation of BC Ratio

State	Projects	Findings
Andhra Pradesh	Ali Sagar Lift Irrigation Scheme	Creation of additional IP was incorrectly claimed, as there was no new IP creation and only stabilisation/ supplementing the source of existing ayacuts.
Arunachal Pradesh and Mizoram		The change in cropping pattern projected in the DPRs was stated to be on the basis of general oral opinion of beneficiaries collected during detailed survey and investigation and also through State Agriculture Department. However, there was no documentation that the proposed cropping patterns were adopted in consultation with the Agriculture Department or after soil surveys of the cropping area, nor of the prevailing market rates as adopted in the DPRs.
Bihar	Western Kosi Canal Project	BCR was calculated at 2.794 after projecting Kharif crop production, which was unrealistic as the command area was flood prone (making Kharif crop uncertain).
Gujarat	Bhadar-II	On-farm development cost was not considered for calculating BCR. Further, the BCR of 2.581 was based on the original estimated cost of Rs. 73.08 crore; the BCR based on the revised estimates of Rs. 138.54 crore would be much lower.
	Mukteshwar	IP Cost per ha was estimated at Rs. 0.31 lakh per ha, based on estimated project cost of Rs. 19.37 crore. Based on the project cost on completion of Rs. 49.81 crore, the actual IP cost per ha was Rs. 0.81 lakh per ha.
Jharkhand	Sonua Reservoir Project	BCR Of 1.29 was incorrectly based on the data of Hazaribagh District (instead of Chaibasa District); based on Chaibasa District data, BCR would be 0.91.
	Tapkara Reservoir Project	Projected BCR of 2.637 was based on projected CCA of 2732 ha. The revised BCR, based on the actual IP created of 311 ha and other current data, worked out to only 0.22.

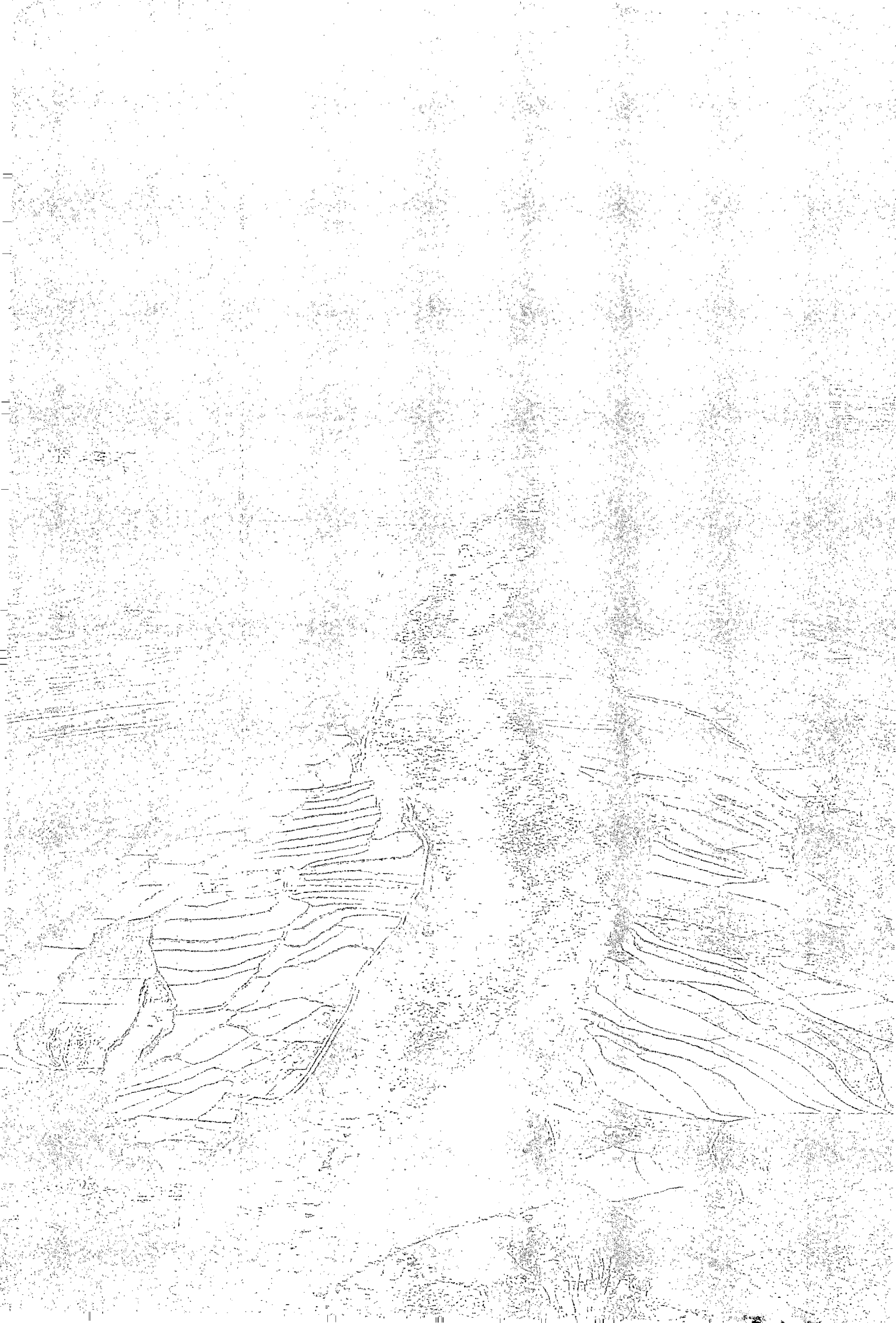
State	Projects	Findings
Madhya Pradesh	Bawanthadi	BCR of 1.15, as per revised estimate, was irregularly inflated to 1.76 by ignoring land development cost and cost of headwork maintenance, and adding benefits on account of cultivation in galper land (submergence area in summer) without appropriate justification.
	Bansagar Project (Unit-II – Canal)	BCR of 3.61 (as per revised estimate) was inflated by not providing for higher depreciation on electrical mechanical systems, not assessing loss of cultivation in canal submergence areas, and understating interest on capital by not including land development costs.
	Test-checked MI Tank Projects	BCR was inflated by not adding head-works maintenance costs and land development costs, ignoring loss of cultivation in submerged areas, and charging lower depreciation.
Maharashtra		For the State as a whole, BCR calculated and approved by CWC was based on the entire project costs and benefits, and not on the AIBP components alone.
Sikkim		DPRs were not produced; copies of BCR analysis were kept in some cases in implementation files. In one case, benefit due to “time saved by farmers for irrigating the fields” was irregularly considered, overstating the BCR.
Uttarakhand		111 sub-schemes of MI projects were undertaken without calculating BCR.

✓ Recommendation - 2

Survey and investigation may be ensured in respect of all preliminary reports for investment clearance; these cannot be based only on desk study.

Formal DPRs may be insisted upon for all minor irrigation projects; concept papers or equivalents should not be treated as sufficient.

AIBP guidelines and the Planning Commission's investments clearance lay great stress on Benefit Cost Ratio (BCR) so as to provide assurance regarding the economic viability of the project. In this context, the MoWR must ensure that BCRs for all projects are properly calculated, based on validated and verifiable data and assumptions relating to costs, revenues, cropping patterns etc.



Project Completion

4

4.1 Share of AIBP in Irrigation Potential

Out of the Ultimate Irrigation Potential (UIP) of the country of 139.9 million ha, AIBP projects (excluding non-AIBP components of such projects) accounted for 10.49 million ha (8 per cent).

Analysis of UIP and IP creation for major, medium and ERM projects revealed the following:

- Out of total UIP of 58.47 million ha, targeted potential under AIBP was 9.65 million ha (17 per cent), against which 4.90 million ha of Irrigation Potential (IP) was reportedly created upto 2007-08.
- Out of the 4.90 million ha of IP reportedly created under AIBP, 2.16 million ha (44 per cent) was created during 1996-97 to 2002-03, while 2.74 million ha (56 per cent) was created during 2003-04 to 2007-08.

A state-wise profile of reported creation of IP under AIBP projects is given in Chart 6; details of state-wise reported creation are given in **Annexure – IV**.

Chart 6 - State-wise profile of Reported Creation of IP under AIBP projects



Chapter - 4Project
Completion

Clearly, AIBP was a significant factor in the reported creation of Irrigation Potential in the major, medium and ERM sector, especially since 2003-04. However, project-wise data regarding actual utilisation of IP reportedly created was not furnished by either CWC or MoWR, and was evidently not maintained. In the absence of such data, the contribution of AIBP to irrigation potential which was actually utilised could not be ascertained in audit.

In the Action Taken Report of 2008-09 on the previous audit report, the MoWR had stated that monitoring of utilization of IP was not covered in the programme, as the utilization did not start immediately in many projects, and usually took two to three years, due to various reasons. The current audit confirmed the continued lack of monitoring of utilization of IP by the MoWR/CWC. It would, thus, appear that MoWR merely intended AIBP to fund large-scale construction of works and structures without ensuring the benefit of irrigation water to the farmers.

The role of AIBP in the Minor Irrigation (MI) sector is relatively small. Analysis of UIP and IP creation for MI projects revealed that:

- Out of the total UIP of the country of the MI sector of 81.43 million ha, 17.38 million ha pertains to the surface water component, where AIBP is applicable. Of this UIP of 17.38 million ha, the UIP of AIBP MI schemes was only 0.84 million ha (5 per cent).
- Against the UIP of AIBP MI schemes of 8.36 lakh ha, 2.67 lakh ha of IP was reportedly created from 1999-2000 to 2007-08.
- Of the above, 1.99 lakh ha of IP was reportedly created during 2003-08, and 1.23 lakh ha (62 per cent of IP created) reportedly utilized.

Audit scrutiny revealed that the Ministry did not maintain project-wise details of IP created and utilised under AIBP MI projects; it could only furnish total IP created and utilised on a year-wise and State-wise basis. In the absence of detailed data, the authenticity of creation/utilisation of IP under individual AIBP MI projects could not be verified. This compounds the minuscule contribution of MI projects under AIBP to even the surface water component of the entire MI sector in the country.

**Recommendation - 3**

- The Ministry must institute a system to collect authentic and validated data of not only creation, but also utilisation of IP for AIBP projects in the major/medium/ERM and MI sector at least for a period of five years after the completion of the projects.
- The role of AIBP in funding a large number of individual MI projects with minuscule IP needs to be re-examined, particularly in view of the lack of monitoring and data collection by both the Ministry and CWC.

4.2 Completion of Major, Medium and ERM Projects under AIBP

4.2.1 Overall Profile of Reported Completion of AIBP Major, Medium and ERM Projects

The earlier audit report (No. 15 of 2004) had highlighted the poor progress in completion of major, medium and ERM AIBP projects. Only 23 out of 172 projects approved since 1996-97 had been completed; even out of these 23 projects, completion certificates were yet to be issued for 10 projects. Further, the concept of 'Fast Track Projects' introduced within AIBP in February 2002 turned out to be a futile effort, as none of the 29 "Fast Track Projects" had been completed.

Notwithstanding the numerous changes in scope, coverage, and terms of assistance under AIBP, the current audit revealed that the status of completion of projects taken up under AIBP continued to be poor. Of the 253 major, medium and ERM projects sanctioned under AIBP between October 1996 and March 2008, only 100 projects were reported as completed¹¹. An age-wise profile of the 153 projects reported as ongoing, based on the year of inclusion under AIBP, is given below:

Chart 7 - Age-wise Profile of Ongoing AIBP Major/Medium/ERM Projects

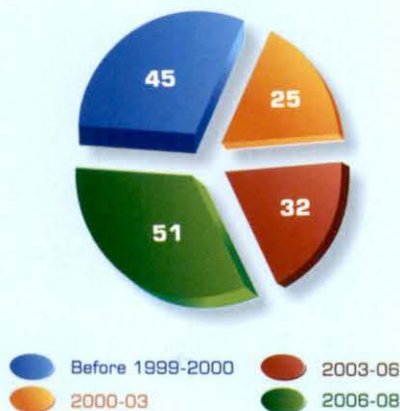
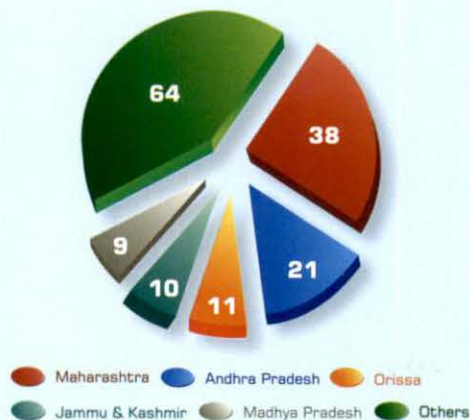


Chart 8 - State-wise Profile of Ongoing AIBP Major/Medium/ERM Projects



It may be noted that these five states, which had the maximum number of ongoing AIBP projects, also received, along with Karnataka (except J&K), the vast majority of AIBP grants during the period 2005-06 to 2007-08 as detailed in paragraph 7.1.

¹¹ This should be read in the context of the audit findings that 12 out of 21 test-checked projects reported as complete, were, in reality, either not completed or not commissioned.

Chapter - 4Project
Completion**4.2.2 Status of Completion of Test-Checked Projects**

Audit scrutiny of 41 Major and 29 Medium Irrigation Projects in 26 States revealed that 21 projects (12 Major and 9 Medium projects), representing 30 per cent of the total test-checked projects were reported as completed either by the State Govt. or MoWR. However, field audit revealed that 12 projects out of these reportedly complete projects were actually incomplete/non-commissioned as detailed below:

Table 7 - Profile of Completed Projects in Audit Sample

Category	Total number of test-checked projects	Projects reported as completed	Projects actually found incomplete/non-commissioned
Major	41	12	7
Medium	29	9	5
Total	70	21	12

Details of projects falling within the audit sample, which were found incomplete or non-commissioned, are given below:

Table 8 - Details of Major/Medium Projects found incomplete/non-commissioned

S.No.	State and Names of the Projects	Project Status
Andhra Pradesh		
1.	Veligallu Reservoir Project, Kadapa	Due to delay in official correspondence and fulfillment of legal procedures related to land acquisition, rehabilitation and resettlement works were pending even after the scheduled period of completion was over.
Haryana		
2.	Balance Work of Water Resources Consolidation Project (WRCP)	Out of the total 104 works to be executed, only 73 works (70 per cent) were actually executed. Shortfall in achievement of various components viz., earthworks, lining and cement concrete ranged between 31 and 70 per cent.
Jharkhand		
3.	Tapkara Reservoir	The targeted CCA was not achieved due to non restoration/renovation work in the main canal to check heavy leakage of water, non-construction of aqueduct, branch canal and distributaries, and non-repair of cross drainage structure and gate outlet.
Kerala		
4.	Kallada	Though works of main canal and branch canals were completed, completion of works relating to 6 Minor Distributaries ranged between 21 per cent and 60 per cent.
Maharashtra		
5.	Vishnupuri	The project (AIBP component) was declared completed (March 2006) with creation of 2636 ha of irrigation potential. However, as the Part-I works of the command area were not completed, the utilization of created irrigation potential could not be done.
6.	Patgoan	The works were declared as completed (March 2007). Irrigation potential of 1992 ha said to have been created under AIBP could not be utilized as out of 17 K.T. ¹² Weirs, four K.T. Weirs had collapsed and four K.T. Weirs required major repairs.

¹² K.T. Weirs: Kolhapur Type Weirs

S.No.	State and Names of the Projects	Project Status
Punjab		
7.	Remodeling of Upper Bari Doab Canal (UBDC)	The State Government declared the project as completed and furnished a completion certificate in September 2006. Audit scrutiny, however, revealed that some works like providing gates and gearing system on various canal distributaries/ water regulators/ cross regulators were still incomplete as on August 2008. A perusal of the photographs printed in the Monitoring Report of November 2006 revealed that works like construction of Cross Regulator cum foot bridge with fall at RD 12750, old structure obstructing the flow of water at RD 195000 of Kasur Branch Lower (KBL) and construction of KBL Tail/escape at RD 30680 were still ongoing. The facts were also confirmed during field visits made by the Audit party in October 2008 indicating that no gates and gearing system were installed at KBL RD 168.400 km and Sabraon branch RD 127.250 km.
Rajasthan		
8.	Modernization of Gang Canal	39 works (out of 43 works) relating to rehabilitation of F-Branch (RD 0.00 to 145 m) were under progress for more than three years.
9.	Mahi Bajaj Sagar Project	Due to defective planning, the water did not reach the down stream portion of Nithauwa distributary beyond 2.5 kms and an area of 3,445ha did not receive the benefits of the canal.
Uttar Pradesh		
10.	Modernisation of Agra Canal	<ul style="list-style-type: none"> ■ Three bridges (at Palwal, Chhajunagar and Lilwari) were still incomplete as of September 2008, although, the project was declared completed in March 2008. ■ During field visit to Agra Canal, supply of polluted water was found between Km 2.355 to Km 7.100 of Agra Canal. There were six open sewage drains and six Hume pipes sewage drains which were polluting the canal water.
11.	Rajghat Canal Project	<ul style="list-style-type: none"> ■ Nine out of twenty MoUs signed with the Uttar Pradesh Power Corporation Limited (UPPCL) for execution of works, were still to be finalized, while three MoUs had been rescinded without completing the work. ■ Out of eight rail crossings proposed to be constructed on the canal, only four could be completed, including one defective canal crossing.
West Bengal		
12.	Hanumata Irrigation Scheme	<ul style="list-style-type: none"> ■ Construction of one aquaduct at chainage 480.00 m of Right Bank Main Canal (RBMC) was in progress. ■ The bed level of RBMC from chainage 199.89 onwards was higher than the design bed level and fell in mostly rocky zone. All three distributaries of the RBMC were situated after chainage 199.89. As a result, canal water was not available for irrigation from chainage 199.89 onwards, which meant that the project could cater to only 41 percent of the target area. ■ Forceful occupation by local people of land already transferred to project authorities led to non-execution of works from Ch. 6.89 km to 8.30 km and 13 km to 14.38 km of the Distributary – I of the RBMC. ■ Water for irrigation in AIBP portion of the canals was not available due to land disputes and delayed execution of works.



Recommendation - 4

MoWR must investigate all cases of incomplete/ non-commissioned projects reported as complete to ensure that there is no diversion or misuse of funds released for these projects. Appropriate action must also be taken against the authorities issuing such false completion certificates.

Chapter - 4Project
Completion

4.2.3 Reasons for Non-Completion

A State-wise analysis of the major reasons for projects not being completed revealed the following position:

Table 9 - State-wise profile of Reasons for Non-Completion

State	Major Reasons
Andhra Pradesh, Bihar and West Bengal	Non-acquisition of land; delay in execution of works
Assam	Non-acquisition of land; delayed release/ short release of CLA/ Grant; Non-release of State share; law order situation
Gujarat	Lack of proper planning and execution of works in an unsynchronized manner; delay in acquisition of land and execution of contracts; diversion of funds
Haryana	Delayed execution of works
Himachal Pradesh	Lack of electricity connections; non-finalisation of tenders; non-construction of water courses and distributaries
Jharkhand, Meghalaya and Tripura	Non-acquisition of land
Karnataka and Kerala	Non-acquisition of land; delay in construction of distributaries and approach canal works
Madhya Pradesh	Delayed execution of works (primary dam, tunnel work, main canal)
Maharashtra	Incomplete canal and command area works; non-acquisition of land; damaged structures (pre-AIBP components)
Manipur	Delayed construction of dam and spillway
Orissa	Delayed acquisition of land; non-finalisation of rehabilitation and resettlement of displaced persons; non-finalisation of designs; non-construction of bridges over railway and highway crossings; sub-standard execution of works
Punjab	Incomplete works (gates and gearing system on canal distributaries/ water regulators/ cross regulators); damaged structures
Uttar Pradesh	Execution of works in an unsynchronized manner (executing restoration works in lower reaches earlier than upper reaches; absence of drawings); incomplete works at rail crossings and bridges; non-finalisation of MoUs

 **Recommendation - 5**

The major reasons for non-completion of major/ medium/ ERM projects include (a) non-acquisition of land; (b) delays in construction of railway/ highway crossings; (c) improper synchronisation of project components (dealt with elsewhere in this Report), and (d) delayed tendering and contract management. While we note that acquisition of land is a complex and sensitive process, Govt funds should be released only after the State Government certifies that the major portion of the land required for the project (not just for the dam/ headworks but also for the canals) has already been acquired. Further, future releases should be linked to progress in land acquisition.

Better co-ordination with railways and NHAI is required for quick completion of crossings.

4.3 Overall Profile of Reported Completion of AIBP MI Projects

As in the case of major, medium, and ERM projects, the earlier audit of AIBP had pointed out poor progress in completion of MI projects also. Out of 3,129 MI projects approved during 1999-2003, 1,677 projects (54 per cent) were completed. However, against the targeted 2.46 lakh ha of IP, only 0.56 lakh ha of IP (23 per cent) was created, of which only 0.11 lakh ha (19 per cent of IP created) was utilized.

The current audit revealed that there was no improvement in completion of MI projects. Out of 6855 MI projects sanctioned under AIBP, only 2535 projects (37 per cent) were reported as completed.

Audit scrutiny revealed that the Ministry does not track project-wise details of status of MI projects; it could only furnish total number of projects taken up/ completed on a State-wise and year-wise basis. This year-wise data did not even indicate when the projects reported as completed in a particular year were taken up. In the absence of such data, the authenticity of completion of individual MI projects, as reported by MoWR, could not be verified.

4.4 Time and Cost Overrun

Audit scrutiny of the test-checked projects revealed that:

- 48 major/ medium projects (69 per cent of the test-checked projects) and 60 MI projects (18 per cent) suffered from cost over-run;
- 53 major/ medium projects (76 per cent) and 73 MI projects (21 per cent) suffered from time over-run.

Almost all the major and medium irrigation projects test-checked in Andhra Pradesh, Assam, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Manipur, Meghalaya and West Bengal suffered from time and cost overrun. On the other hand, in Maharashtra, only one out of eight major/medium test checked projects suffered from time overrun; this must, however, be read with the fact that the AIBP components of these test-checked projects merely constituted fractions of the whole projects and also the absence of details of reported expenditure for AIBP projects in Maharashtra.

The states performing poorly in ensuring timely completion of Minor Irrigation Projects within approved cost were Madhya Pradesh, Himachal Pradesh, Orissa, Maharashtra and Meghalaya.

State-wise details of time and cost overrun are given in **Annexure – V**.

4.5 Achievement of targeted IP and Utilisation of created IP in Test Checked Projects

The ultimate aim of the programme was to create Irrigation Potential (IP) and optimum utilization of the created IP. Audit scrutiny of the records of the implementing agencies revealed that the targeted IP was not created in 25 Major, 19 Medium and 189 Minor Irrigation

Chapter - 4Project
Completion

Projects in Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal (26 States) out of the test-checked 41 major, 29 medium and 346 minor irrigation projects. Further, even the IP reported as created was not being utilized fully.

Key instances of short creation of targeted IP and non-utilisation of the created IP are given below:

Table 10 - Key instances of Short creation/Non-utilisation of IP

State	Projects	Major Reasons
Andhra Pradesh	Sriramsagar Stage-I; Yerrakaluva Reservoir	No supporting ayacut registers, water release schedules were maintained by the Water Users Association; consequently, potential reportedly created/ utilized could not be verified
Assam	Champamati; Modernisation of Jamuna Irrigation Project	Shortfall in creation of IP due to abnormal delay in completion of projects; wide variation between figures of utilization of created IP furnished by Irrigation Department and by Directorate of Economics and Statistics
Bihar	Western Kosi Canal Project	Utilisation of only 0.24 lakh ha (out of created IP of 1.76 lakh ha) due to non-completion of canal system.
	Sone Canal Modernisation Project	IP of 1.69 lakh ha created under AIBP could not be utilized due to non-completion of Western Parallel Link Canal (WPLC). Further, non-lining of canals/ distributaries resulted in damage to canals and reduction in quantum of water flow.
Chhattisgarh	Koserteda Project	Shortfall in IP creation was due to delay in land acquisition
Gujarat	Sardar Sarovar Project	Against the targeted IP (under AIBP) of 14.40 lakh ha, only 4.60 lakh ha of IP was created, of which only 0.71 lakh ha was utilized as of March 2008
	Mukteshwar; Bhadar-II	Shortfall in IP creation was due to delay in land acquisition
Haryana	Balance Work of WRCP	No IP was actually created, as the works were in the nature of rehabilitation/ repair of existing infrastructure
Himachal Pradesh	Sidhata Project	There was shortfall in IP creation due to non-completion of four out of six Lift Irrigation Schemes
Jharkhand	Upper Shankh; Panchkhero; Tapkara Reservoir	No / negligible land had been acquired for construction of distributaries
Karnataka	Upper Krishna Stage-II; Karanja; Varahi	There was shortage in creation of IP due to delay in construction of distributaries, and non-completion of approach canal works
	Upper Krishna Stage-I	Canal work completed for 5600 ha could not put to use, due to non-creation of field channels.
Kerala	Kallada	Though the project was declared complete, work on minor distributaries was not completed and left at a standstill. Further, a study conducted by the Department during 2006 revealed that seepage was very high (even 30 per cent in certain cases) against the allowable seepage of 10 per cent. This was because almost all the canals were filled with silt, grass and other waste, and also because the canals were not lined or linings were damaged.
	Muvattupuzha	Non-achievement of targeted IP was due to non-completion of branch canals and distributaries
	Karapuzha	Non-achievement of targeted IP was due to delay in land acquisition

State	Projects	Major Reasons
Madhya Pradesh	Indira Sagar Project Phase-II	The initial length of the canal of 142 km was bifurcated into two phases (0-71 km and 71-142 km), both of which remained incomplete even after a time overrun of over 5 years. The District Road Bridge at RD 42.31 km of main canal was still incomplete even after lapse of 12 years. Consequently, IP beyond 42.31 km could not be utilized, although distribution network covering CCA of 22,236 ha. had been developed up to 71 km.
	Bansagar Unit-II	One of the main canals was breached, due to over topping of another parallel running canal at higher ground levels. The completed portion of the Right Bank Main Canal between km 0 to 38 was able to carry only 1.5 cumecs against the envisaged 2.77 cumecs, which was essential for achieving the designed IP. Also, the created IP was largely unutilisable, as the key structures for the distribution system were not complete.
	Bawanthadi	IP could not be utilized, as the primary dam section was still incomplete
	Bargi Diversion	The project was divided into two phases – 16-63 km, and 63-104 km. However, IP beyond km 33 was unavailable, as tunnel work at km 33-35 (Phase-I) was still incomplete, after a lapse of five years. Further, in Phase-II, the work of a main railway line crossing at the starting reaches of the Majholi branch canal was still incomplete even after a lapse of 3 years
Maharashtra	Vishnupuri	IP created could not be utilized, due to non-completion of Part-I works of command area.
	Krishna	The work of Arphal canal (103 – 204 km) taken up during 2002-03 was still to be completed.
	Nandur Madhmeshwar; Khadakpurna (W); Arunavati (W)	Due to completion of fractions of components under AIBP and not the project as a whole, reported IP created was 'theoretical' and could not be utilised.
	Patgaon	IP of 1992 ha reportedly created under AIBP could not be utilized, as out of 17 K.T. Weirs, four K.T. Weirs had collapsed and four K.T. Weirs required major repairs
	Bembala	Due to non acquisition of land for 2300 metre of canal length in chainage 0 to 1500 metre and 1700 to 2500 metre, the work of construction of main canal was stopped since July 2007. Though water was stored in the reservoir, irrigation was not possible.
	Manipur	Thoubal
Rongai Valley		Completion of barrage was suspended in April 2003 after 95 per cent execution, due to the contractor's refusal to continue the work, pending sanction of revised estimates and payment of bills.
Orissa	Upper Indravati (KBK)	The progress achieved in extension of left and right canal systems, which were taken up during 2003-04 for completion by March 2008, was only 22 per cent, due to delay in acquisition of land, non finalisation of designs of an aquaduct and non construction of bridges over canal crossings on State/National Highways.
	Rengali	Targeted IP could not be achieved due to non-synchronisation of work of distribution system with the main canal, execution of work in a piecemeal manner, and delayed completion of project work.
	Telengiri (KBK)	Targeted IP could not be achieved, due to delay in land acquisition.

Chapter - 4Project
Completion

State	Projects	Major Reasons
Punjab	Kandi Canal Extension (Phase II)	Canal siphon at RD 64.109 km was completely damaged
Rajasthan	Indira Gandhi Nahar Project Stage-II	Non-utilisation/ short-utilisation of created IP was due to non-completion of pumping stations and command area development works, and non-construction of water courses in lift areas
	Narmada Canal	Against the targeted 2,240 diggjis, only 662 were constructed.
	Mahi Bajaj Sagar	Creation of targeted IP was affected due to delays in environmental clearance and land acquisition.
	Modernisation of Gang Canal	Non-achievement of targeted IP was due to non-completion of distributaries and minors.
Tripura	Khowai	Out of the targeted IP of 4515 ha, only 1453 ha (32 per cent) could be achieved. Non-creation of targeted IP and under-utilisation of created IP was due to non-operation of Left Bank Main Canal and non-execution/ non-completion of works in different chainages of the main and branch canals.
Uttar Pradesh	Bansagar Canal	Underground water sprouted up in chainage km 40.7-43.3 km of the Meja-Jirga Link Canal (MJLC), stopping further excavation. Further, MJRC intersected the existing Upper Khajuri Left Canal at km 43.050, blocking the latter and depriving farmers of existing irrigation facilities.
	Rajghat Canal	Although the project was declared complete in 2007-08, various works for which 22 MoUs were signed with UPPCL during 1997-2006 were still incomplete – 3 MoUs were rescinded, and 9 MoUs were still to be finalized. Further, only four out of eight rail crossings and none of the five bridges over National Highways could be constructed.
	Modernisation of Agra Canal	Although the project was declared complete as of March 2008, three bridges were still incomplete as of September 2008. Also, new bridges were constructed without dismantling the old bridges, which led to silting and growth of weeds in the canal section.
	Modernisation of Lachhura Dam	68 drawings related to the project were pending approval.
	Improving Irrigation Intensity of Hardoi Branch System	Restoration works in lower lying branches were started earlier than those in upper reaches. Further, work was started after a delay of nine months.
West Bengal	Teesta Barrage Project	Only two out of five main canals were completed; 21 out of 35 distributaries pertaining to the completed canals were still incomplete, mainly on account of land disputes.
	Patloi Irrigation Scheme	123 cases of land acquisition disputes resulted in several stretches of canals and distributaries remaining incomplete.
	Hanumata Irrigation Scheme	Land disputes and delayed execution of works resulted in non-availability of irrigation water from the AIBP portion of the canals.

Photographs of 15 test-checked Major and Medium Irrigation projects of 8 States show various bottlenecks viz. High vegetation and breakage in Canals (Bihar); canals without water (Gujarat); incomplete works at railway crossings (Kerala); incomplete works at tunnel and railway crossings (Madhya Pradesh); weeds and siltation in canals (Manipur); incomplete works and slippage of embankments (Orissa); incomplete bridge and defective canal crossing (Uttar Pradesh), and no trace of canal water/work held up due to land dispute (West Bengal).

Photographs of Projects with short-creation/non-utilisation of IP

Chapter - 4

Project
Completion



Western Kosi Main Canal- Bihar : Siltation in upstream



Western Kosi - Bihar : Breakage in Saharghat Branch Canal



Sone Canal Modernisation Project (SCMP) - Bihar : High vegetation

Chapter - 4

Project
Completion



Sone Canal Modernisation Project (SCMP) – Bihar : Incomplete Western Parallel Link Canal



Sardar Sarovar Project – Gujarat : Vehalam D Minor – No Water



Sardar Sarovar Project – Gujarat : Jafarpur Minor–No Water

Chapter - 4

Project
Completion



Kallada Irrigation Project - Kerala : Poovattoor Distributary- Bottleneck work in the Railway portion – Work just started



Muvattupuzha Irrigation Project– Kerala : Ezhuthonipadam Acqueduct - Bottleneck work in the Railway portion – Work yet to be arranged



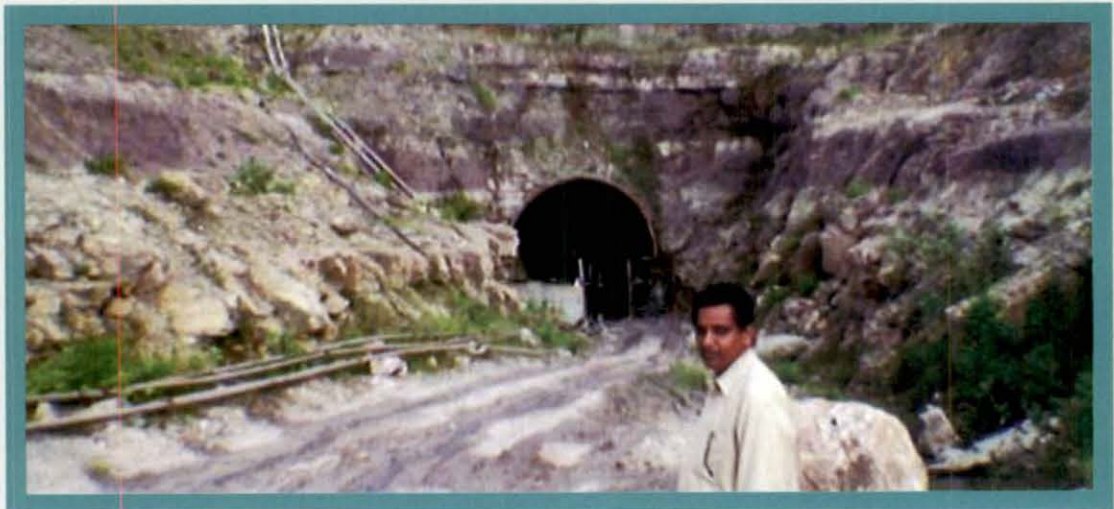
Indira Sagar Project (Canal) – Madhya Pradesh : Punasa Exit Channel – Work in Progress

Chapter - 4

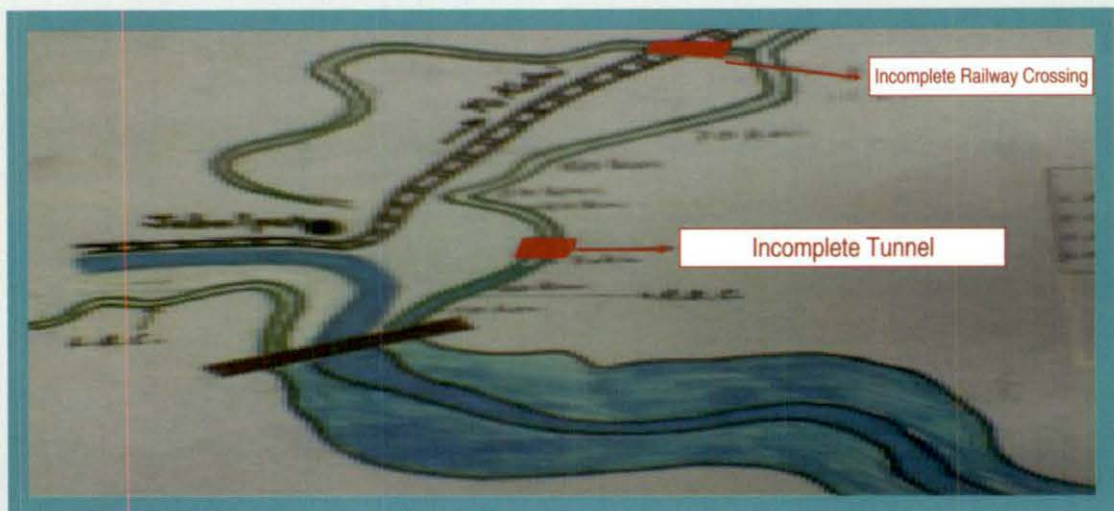
Project
Completion



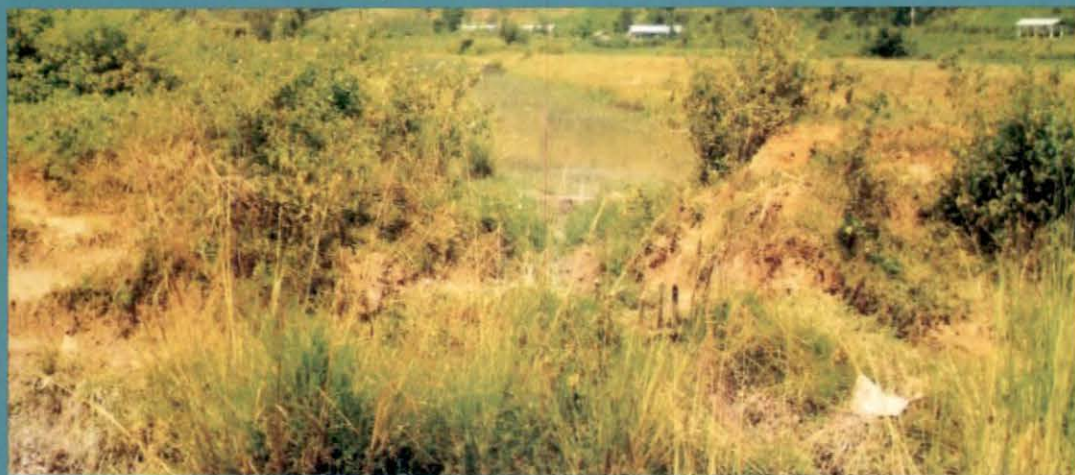
Bansagar Project (Unit-II –Canal) – Madhya Pradesh : Sihawal canal - Incomplete structure at Rd km 42



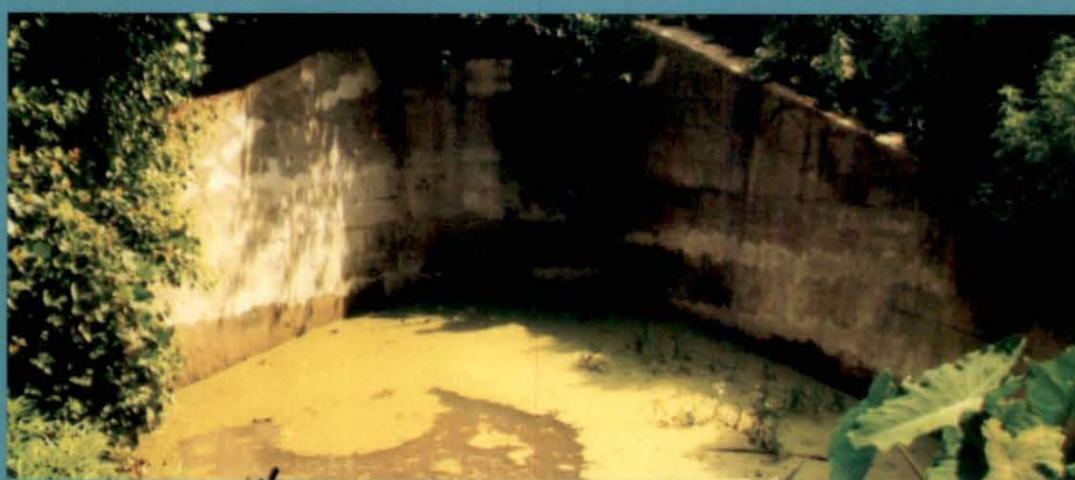
Bargi Diversion (Phase I) – Madhya Pradesh : Incomplete tunnel at Rd. km 33 to 35.42



Bargi Diversion (Phase I & II) – Madhya Pradesh - Diagram showing incomplete tunnel at Rd. km 33 to 35 and incomplete railway 'X'-ing at the starting reaches of Majholi branch canal



Thoubal Multipurpose Project – Manipur : Siltation, shrubs/weeds in Canal



Thoubal Multipurpose Project – Manipur : Non-functional canal syphon



Right Bank Canal (RBC) of Rengali Irrigation Project – Orissa : Failure of slope and slippage of embankments at RD 31.55 to 34.24 km

Chapter - 4

Project
Completion



Upper Indravati Irrigation Project – Orissa : Syphon Aquaduct over river Sagada at RD 2820 M of RBMC remained incomplete due to non finalization of design



Agra Canal Project – Uttar Pradesh : Incomplete bridge at Chhajunagar (despite the fact that the project was declared as completed)



Rajghat Canal Project – Uttar Pradesh : Defective canal crossing at Km 0.750 of Bhailwara distributary below rail line and damaged canal due to back flow in the up stream of rail line



Teesta Barrage Project - West Bengal : DNMC of TBP at Ch. 63.585 where no trace of canal water was observed due to land dispute in Uttar Dinajpur District



Patloi Irrigation Scheme - West Bengal : Work of proposed RCC Tunnel at chainage 551.20 in Purulia District held up due to land dispute.



Recommendation - 6

In case of irrigation projects which have been split into two or more AIBP projects or which have been separated into AIBP and non-AIBP components, MoWR should ensure that linked components of AIBP projects are completed, so as to ensure the creation of targeted IP under AIBP, and commissioning/utilisation thereof.

4.6 Impact on Cropping Pattern

Despite investment of funds in AIBP Projects, there was no change in the existing cropping pattern/ introduction of double & multi-cropping system as per the records of the Department of Agriculture / Land Revenue (which were targeted outcomes) in 11 Major, 6 Medium and 128 MI Projects test checked in Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Orissa, Punjab, Rajasthan, Sikkim, Uttar Pradesh and Uttarakhand (18 States).



Project Execution and Maintenance

5.1 Commencement without pre-requisites

Approvals of AIBP Projects were subject to fulfillment of various prerequisites such as acquisition of land for the project (which also involved payment of compensation to the affected families), clearance from the forest and environment departments and approval/clearances from other departments involved viz. Railways, National Highways etc. Commencement of the projects without fulfilling such prerequisites is beset with the adverse consequences of funds being blocked in incomplete projects.

Audit scrutiny revealed that 11 Major, 10 Medium and 22 MI Projects were taken up for execution without ensuring the fulfillment of the prerequisites such as land acquisition, forest clearances etc. in Andhra Pradesh, Assam, Bihar, Chhattisgarh, Jammu & Kashmir, Jharkhand, Kerala, Maharashtra, Manipur, Orissa, Uttar Pradesh and West Bengal (12 States).

Details of such instances of commencement of projects without fulfilling the required prerequisites are given below:

Table 11 - Instances of Commencement of Projects without fulfilling pre-requisites

State	Projects	Findings
Andhra Pradesh		Four out of seven test-checked major/ medium projects and two MIs were delayed, since the Government awarded project works without prior acquisition of land.
Assam	Champamati Project	302 ha out of the total land requirement of 478 ha was yet to be acquired.

Chapter - 5Project
Execution
and
Maintenance

State	Projects	Findings
Bihar	Durgawati Reservoir Project	Work was stopped since 2006-07 due to lack of forest clearance.
	Western Kosi Canal Project	Execution was badly affected due to non-acquisition of land.
	Sone Canal Modernisation Project	Non-clearance from the Road Construction Department delayed the completion of the Western Parallel Link Canal.
Chhattisgarh		Work in 1 Major, 1 Medium and 5 MI projects was badly affected due to delay in finalization of land acquisition cases.
Jammu & Kashmir		Work of 4 MI lift irrigation schemes was taken up without ensuring acquisition of land and availability of sufficient water.
Jharkhand	Sonua and Tapkara Reservoir Projects	Forest clearance from MoEF ¹³ was not obtained, though construction of the reservoir dam was almost complete, and forest land was put under submergence.
	Panchkhero Reservoir	Although the project was scheduled for completion by March 2009, survey for assessing land requirement for distributaries and water courses was not yet done.
Kerala	Muvattupuzha Irrigation Project	Three works were awarded before ensuring availability of land, and could not be completed due to non-availability of land. For another work "Manjoor Distributary – construction of railway crossing from chainage 782-891 m", work started only in January 2008 due to delay in tendering procedures, and the validity period of Railway approval for the work (issued in April 2004) had expired.
Maharashtra	1 Major and 6 MI Projects	Work was badly affected due to delay in finalization of land acquisition cases.
Manipur	Thoubal Project	Clearance had not been received for the rehabilitation and resettlement action plan.
Orissa	Upper Indravati, Telengiri and Right Bank Canal of Rengali	Works were delayed due to non-acquisition of land
	Kurubela, Laxmipur, Dhawandhar, Doraguda and Jagumguda MI Projects	Works were not completed, as they were pending clearances from MoEF, Revenue Department (for issue of notifications), and Water Resources Department (for sanction of estimates)
Uttar Pradesh	Bansagar Canal Project	Forest clearance for the Adwa Meja Link Canal was given, subject to completion of 75 per cent of rehabilitation and relocation work after obtaining consent of the villagers in full awareness of the benefits. However, no rehabilitation was carried out; physical visits and discussions indicated that the villagers were unwilling to be relocated. Consequently, the construction of the canal was stopped mid-way.
West Bengal	Teesta Barrage Project	Disputes over 123 cases of land acquisition remained unsettled. Further, the conditions to which MoEF clearance was subject to had not been fulfilled.
	Patloi Irrigation Scheme	Disputes over 13 cases of land acquisition remained unsettled.

¹³ Ministry of Environment and Forests, Government of India.

5.2 Incorrect Phasing of Project Implementation

AIBP guidelines from 1998-99 envisaged assistance on large projects for their phased completion, so that benefits could start flowing early with comparatively smaller investments. The construction programme of major projects was to be phased out in such a way that the length of main canal and distributaries taken up (including the distribution system) in a year could be completed so as to start yielding phase-wise benefit.

Audit scrutiny, however, revealed that such phased implementation was not ensured during the construction of 17 Major, 7 Medium and 4 Minor Irrigation Projects in Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Orissa, Punjab, Rajasthan, Tripura and West Bengal (15 States). Resultantly, projects remained non functional despite huge investments.

Details of instances where phase-wise benefits could not be availed due to construction of the projects in an uncoordinated manner are given below:

Table 12 - Instances of Incorrect Phasing of Project Implementation

State	Projects	Incorrect Phasing of Implementation
Andhra Pradesh	Yerrakaluva Irrigation Project	Out of 50 distributaries, 32 were completed, and 8 sub-works were in progress. Field channels had not been taken up.
Bihar	Western Kosi Canal Project	Though the dam was 100 per cent complete, and the main/ branch canals were 99 per cent complete, progress in construction of distributaries and water courses was only 70 per cent and 32 per cent respectively.
	Sone Canal Modernisation Project	Though the dam was 100 per cent complete, and the main/ branch canals were 97 per cent complete, progress in construction of distributaries was only 88 per cent and no water courses had been constructed.
Chhattisgarh	Jharan Tank, Malanger Diversion and Pithama Tank MI Schemes	Though the headworks were completed, canal work/ distributaries were not executed.
Gujarat	Sardar Sarovar Project	Though the main canal and the branch canals were 100 per cent and 60 per cent complete respectively, the progress of works of the distributaries and minors were merely 27 per cent and 23 per cent respectively.
Jharkhand	Panchkhero Reservoir	The dam and main/ branch canals were 56 and 28 per cent complete; no work on distributaries and water courses was done.
	Sonua Reservoir	The dam and main/ branch canals were 98 and 83 per cent complete; no work on distributaries and water courses was done.
	Tapkara Reservoir	The dam and main/ branch canals were 100 and 75 per cent complete; no work on distributaries and water courses was done.
	Upper Shankh Reservoir	The dam and main/ branch canals were 99 and 58 per cent complete; 25 per cent work on distributaries was done, but no work was done on water courses.
Karnataka	Upper Krishna Project (Stage-II)	Although potential of 3231 ha was created on the Almatti Left Bank Canal, water could not be let out into the canal as the approach canal works were not completed.

Chapter - 5**Project Execution and Maintenance**

State	Projects	Incorrect Phasing of Implementation
Kerala	Kallada Irrigation Project	The works of Poovathoor Distributary and Bhoothakulam Minor Distributary were held up due to non completion of work at the railway crossing and two bridges on the road crossing portions respectively. Work on two other Minor Distributaries v.i.z Kottapuram Minor Distributary and Mynagappally Minor Distributary was only 22 and 60 percent complete respectively.
	Muvattupuzha Valley Irrigation Project	The works of the Manjoor distributary and Ettumanur Branch Canal were held up due to non completion of work at Railway crossing portions. Further, the work of Mulakulam brach canal in the portion from ch.5650m to 6770 m could not be completed due to heavy seepage and sliding of earth.
Madhya Pradesh	Bawanthadi Project	While construction of almost all major items of the project was completed, the primary dam section of the project was incomplete.
	Bargi Diversion (Phase-II) Project	Although 80 per cent of the work of the Majholi branch canal was complete, the work of the canal crossing of a main railway line at the starting reaches was not completed.
	Indira Sagar Project (Canal)	The district road bridge at RD 42.31 km of the main canal was still incomplete, after a lapse of 12 years.
Maharashtra	Vishnupuri Project	Though the project was declared completed, the part-I works of the command area were not completed.
	Dhamangaon Storage Tank MI Project	Though the project was declared completed, the utilization of created irrigation potential could not be done for want of non existence of facilities for lifting the water.
Manipur	Thoubal Multipurpose Project	While progress in construction of canals and distributaries was 89 and 68 per cent respectively, construction of the dam and spillway was lagging behind at 60 and 70 per cent respectively.
Orissa	Right Bank Canal of Rengali Irrigation Project	While the dam and main canal were 100 and 99 per cent complete respectively, progress in construction of distributary systems was only 23 per cent.
	Upper Indravati Irrigation Project	Although the majority of the main canal works had been completed, the minors and sub-minors from RD 11 to 22.40 km were still in the planning/ land acquisition stage.
Punjab	Extension of Kandi Canal Stage-II Project	Though the main canal was constructed upto 112.00 km, work on distributaries, lift irrigation schemes, and water courses was not taken up.
Rajasthan	Indira Gandhi Nahar Project Stage II, Narmada Canal	Instead of executing work in the flow system first and lift system later, both systems were taken up together and both were incomplete. Further, in IGNP Stage-II, the work of water courses was not completed in various systems due to lack of co-ordination.
	Mahi Bajajsagar Project	Even though the project was declared complete, the works of Nithauwa distributary were not completed in the reach 2.50 – 6.48 km, as forest clearance was awaited.
Tripura	Khowai Medium Irrigation Project	Though the barrage portion of the project was completed before inclusion of the project under AIBP, the construction of branch canals implemented under AIBP was only 5 percent.
West Bengal	Teesta Barrage Project	Out of five main canals, only two canals (TMLC and MMC) were completed, one canal (DNMC) was partially completed, one canal (TJMC) was in progress, and construction of one canal (NTMC) was yet to be taken up. Out of 35 distributaries of the completed canals, 21 were still incomplete, mainly due to land disputes.

✓ Recommendation - 7

To tackle the problem of incorrect phasing of project implementation e.g. dam section incomplete, but main and branch canals completed or nearly complete; main/ branch canals completed, but work of distributaries/ water courses not taken up or at a very preliminary stage; main/ branch canals constructed in patches, with gaps (particularly in the initial stages), creation of irrigation potential should be recognized by MoWR/CWC only where (a) there are no gaps in the main/ branch canals, and water is capable of flowing right through the sections recognized for creation of IP; and (b) not just the main/ branch canals, but also all associated minors and distributaries have been completed.

5.3 Maintenance of the projects

- Irrigation being a State subject, funds for maintenance of the Irrigation projects created under AIBP/ any other scheme was not permissible in the AIBP Guidelines. However, the need for maintenance of the assets created by investing huge funds cannot be overemphasised. During field visits of the test-checked projects it was observed that the irrigation tanks/ canals of 3 Major, 3 Medium and 37 Minor Irrigation Projects in Arunachal Pradesh, Bihar, Jharkhand, Manipur, Sikkim, Uttarakhand and West Bengal (7 States) had lost their capacity due to silting, weed growth, structural erosion etc.
- To ensure interest and encourage participation by farmers/ water user associations in the execution and maintenance of the projects, they were to be involved in the project from commencement to commissioning stage. After completion, projects were to be handed over to the beneficiaries, and a three level arrangement i.e. Water Users Associations, Distributary Level Societies and Minor Irrigation Project Level Councils were envisaged. However, such arrangements were either absent or practically non-functional in 18 Major, 12 Medium and 194 Minor Irrigation Projects test checked in Audit in Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Uttar Pradesh, Uttarakhand and West Bengal (21 States).

✓ Recommendation - 8

In order to ensure that funds provided under AIBP do not go waste due to poor maintenance of assets created under AIBP, MoWR may ensure that before approving a project for AIBP funding, the State Government provides a formal undertaking to ensure adequate resources for its maintenance for the next ten years. Further, MoWR/ CWC may consider instituting a system to assess the actual quality of maintenance of Major / Medium AIBP projects post-completion.



Contractual Management

6

6.1 Undue Benefits to Contractors

Various cases of undue benefits to the contractors amounting to Rs.186.89 crore were noticed in audit in Andhra Pradesh, Assam, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Nagaland, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal (14 States). Details of such cases of undue benefits to the contractors, as observed during Audit, are given below:

Table 13 - Instances of Undue Benefits to contractors

State	Projects	Amount (In Rs. crore)	Nature of Undue Benefit
Andhra Pradesh	1 Major-Ali Sagar Lift Irrigation Scheme & 2 Medium- Khomaram Bhim Project and Thotapalli Barrage Project	33.67	Systemic deficiencies e.g. entrustment of work on fixed price basis with variable scope of work and non-adherence to agreement clauses
Assam	1 Major- Champamati Irrigation Project & 1 Medium- Modernisation of Jamuna Irrigation Project and 1 MI	3.22	Instead of booking the amount under Miscellaneous Public Work Advances, the amount was charged as expenditure to the projects.
Chhattisgarh	1 Major- Hasdeo Bango	0.34	Excess payment beyond sanctioned estimates and non deduction of royalty on use of metal and sand in the cement concrete lining work in a distributary.
Jharkhand	2 Medium- Sonua Reservoir Scheme & Upper Shankh Reservoir Scheme	3.89	Price escalation and non-recovery/short recovery of penalty/liquidated damages
Karnataka	1 Major- Upper Krishna Project - Stage I	3.60	Non levy of penalty on delayed supply of material

Chapter - 6Contractual
Management

State	Projects	Amount (In Rs. crore)	Nature of Undue Benefit
Madhya Pradesh	2 Major- Bargi Diversion Project Phase I & Indirasagar Project Phase I	45.53	Price escalations and payment of interest free mobilization advances.
Maharashtra	1 Major- Nandur Madhmeshwar	9.74	Price escalations and payment for work after expiry of validity period of contract without obtaining extension.
Manipur	1 Major- Thoubal Multipurpose Project and 4 MIs	7.57	Payments made on unapproved works, escalation charges, and by adopting incorrect rates; non recovery of penalty for non-completion of the works within the stipulated time frame and for non-employment of technical staff.
Nagaland	4 MIs	4.78	Projects were declared completed and payments made to the contractors on the basis of false measurements recorded in the MBs.
Orissa	3 Major- Upper Indravati Irrigation Project, Telengiri Irrigation Project & Rengali Irrigation Project and 7 MIs	67.26	Non-recovery of liquidated damages for non-completion / abandonment of works, payments for works not carried out as per agreements and inadmissible items, due to adoption of wrong Schedule of Rates, non-recovery of excess payments made on inflated measurements, non-recovery of interest free advances, payment of escalation charges beyond the permissible limits etc.
Punjab	1 Medium -Remodelling of U.B.D.C.Channels	1.21	Security deposits released before the expiry of stipulated period, and payment made on higher rates.
Rajasthan	4 Major -Narmada Canal, Modernisation of Gang Canal, IGNP Stage-II & Mahi Bajaj Sagar	5.43	Non-recovery of compensation due to non-completion of the works within the stipulated time and making payment for a work which was to be constructed by the contractor.
Uttar Pradesh	1 Major -Improving Irrigation Intensity of Hardoi Branch System	0.60	Payment for excavation of earth, which had already been made.
West Bengal	1 Major- Teesta Barrage Project	0.05	Non-completion of work within the stipulated period.
Total		Rs. 186.89 crore	

6.2 Wasteful / Irregular Expenditure

Audit scrutiny revealed cases of wasteful/irregular expenditure amounting to Rs. 403.83 crore incurred on unapproved components of works, in excess of the quantities specified in the estimates, as interest free mobilization advances to contractors, as penalty for not obtaining statutory clearances etc. in Andhra Pradesh, Assam, Bihar, Chhattisgarh, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal (17 States). Details of such cases of wasteful / irregular expenditure from the programme funds are given below:

Table 14 - Instances of Wasteful/Irregular expenditure

State	Projects	Amount (In Rs. crore)	Nature of Wasteful / Irregular expenditure
Andhra Pradesh	1 Medium- Yerrakaluva Project	1.21	Expenditure incurred on repair works.
Assam	1 Major- Champamati Project and one minor	0.71	Work done at a site could not be put to use due to unsuitability of soil condition, resulting in wasteful expenditure. In one Minor Irrigation Scheme, though the State Government did not accord the administrative approval till August 2008, the Division had incurred an expenditure of Rs. 36 lakh between 2001-02 and 2004-05.
Bihar	2 Major - Western Kosi Canal Project (WKCP) and Sone Canal Modernisation Project (SCMP)	79.55	Expenditure of Rs. 72.20 crore up to March 2008 was incurred for metalling of service roads in SCMP (without serving the purpose of irrigation) and payment of Rs. 7.35 crore was made on unauthorized extra works in WKCP.
Chhattisgarh	1 Major-Hasdeo Bango	0.11	Expenditure was incurred on repair of gate and cross regulators, though this work should have been carried out by the concerned contractor.
Haryana	1 Major-WRCP	12.44	Expenditure was incurred (i) on unapproved works, and (ii) without obtaining the sanction of the Competent Authority.
Jharkhand	1 Medium- Sonua Reservoir Project	0.14	Expenditure was incurred on construction of Inspection Bungalow and office by diverting the funds.
Karnataka	1 Major- Upper Krishna Project – Stage II	15.44	Excess expenditure was incurred due to defective estimation as the primary requirements of entering into a contract viz. preparation of estimates, examination of the agreement clauses and specification etc., were not examined and adopted. Embezzlement of funds of Rs.1.39 crore in 10 cases in Krishna Bhagya Jala Nigam Limited (KBJNL).
Kerala	1 Major- MVIP	5.74	Expenditure was incurred on unapproved works viz. Formation and improvements to Roads, protection works, upkeep of dam, improvement of canal roads etc.

Chapter - 6Contractual
Management

State	Projects	Amount (In Rs. crore)	Nature of Unauthorised / Irregular expenditure
Madhya Pradesh	1 Major- Indra Sagar Project	165.73	The state government diverted the AIBP grants of Rs. 165.73 crore for payment of irrigation share of Dam to protect its 49 percent share holding in the Joint venture Company with NHPC without obtaining the approval of MoWR/CWC.
Maharashtra	3 Major- Bembla, Khadakpurna and Arunawati	13.51	Funds utilised for engaging agencies for works relating to obtaining environmental clearance; making payment for unapproved components and for works executed prior to the inclusion of projects under AIBP.
Manipur	1 Major - TMP	4.80	Commencing work on abandoned works.
Mizoram	3 MIs	0.94	Doubtful payment for purchase of raw material, hiring charges of JCB machines and labour charges.
Orissa	3 Major- RIP, UIIP and Telengiri Irrigation Project and 3 MIs	34.26	Funds of Rs. 32.36 crore given to LAOs for payment of land acquisition charges and rehabilitation assistance without sanction of estimate and non furnishing of accounts for such payments. Expenditure of Rs.1.90 crore on construction of a bridge on right extension canal without any estimate.
Punjab	1 Medium-Remodelling of UBDC	5.67	Expenditure was incurred on unapproved works.
Rajasthan	3 Major-Narmada Canal Project, IGNP Stage-II and Gang Canal	13.93	Funds were drawn towards payment of land compensation and booked under the projects to avoid lapse of funds; expenditure was rendered infructuous, as works were abandoned midway on technical grounds; expenditure was incurred on unapproved works; works were taken up without proper planning.
Uttar Pradesh	4 Major-Modernization of Agra Canal project, Bansagar Canal Project, Rajghat Canal Project and Lahchura Dam Project	35.78	Expenditure incurred on unapproved works, non recovery of penalty and income tax dues, excess payment to Railway department, booking expenditure under wrong head.
West Bengal	1 Major- Teesta Barrage Project	13.87	Expenditure was incurred on unapproved works, and due to wrong estimation of design capacities.
Total		Rs. 403.83 crore	

6.3 Other cases of Irregular Contractual Management

Audit scrutiny revealed poor management of contracts and works in 8 Major, 4 Medium and 28 Minor test checked Irrigation Projects in Assam, Bihar, Maharashtra, Manipur, Meghalaya, Orissa, Punjab, Rajasthan and Uttar Pradesh (9 States). Details of instances of such irregularities, as observed during audit, are given below:

Table 15 - Other Instances of Irregular Contractual Management

State	Projects	Nature of Irregularity
Assam	1 Major- Champamati Irrigation Project and 1 Medium- Modernization of Jamuna Irrigation Project	Technical sanctions were accorded (a) in piece meal fashion to avoid sanctioning by competent authority (b) to works beyond the financial powers.
Bihar	1 Major- SCMP	Recommendations of Water And Power Consultancy Services (WAPCOS) to line the link canals, distributaries, sub-distributaries, minor and water courses, were not incorporated in the estimates, due to which their banks were regularly damaged and the quantum of flow of water was badly affected.
Maharashtra	4 MI	Nearly 50 per cent of grant could not be utilized due to various reasons such as non availability of land, rehabilitation issues and opposition from affected persons and due to lack of preparation and approval of technical estimates.
Manipur	20 MIs	No open tenders were called for, and estimates of 12 projects were split up into 54 smaller estimates to avoid approval of the higher competent authorities.
Meghalaya	4 MIs	Supply of water at the tail end was inadequate due to reasons like-unequal and improper distribution of water, leakage and pilferage at various points, improper alignment of pipeline etc.
Orissa	2 Major-Rengali Irrigation Project & Upper Indravati Irrigation Project and 1 Medium-Telengiri Irrigation Project.	Retendering of work abandoned by earlier contractors, non acceptance of the lowest tender, invitation of tender without acquisition of land, non-finalisation of resettlement/rehabilitation issues, substandard work etc. resulted in delay and extra cost to the projects.
Punjab	2 Medium-Remodeling of U.B.D.C Channels and Extension of Kandi Canal Stage -II	Funds for the pucca structures were spent on other works like maintenance of channels etc. Distance marks and boundary pillars meant for use on canal banks had not been installed. Necessary procedures had not been adopted while incurring expenditure on execution of water courses. Besides, the department did not devise any ways & means to recover the cost of construction of water courses from the beneficiaries.
Rajasthan	2 Major- IGNP Stage-II and Narmada Canal Project	Excess expenditure of Rs. 3.96 crore was incurred on work charged establishment. Non-recovery of dues from Public Health Engineering Department (PHED) towards proportionate share cost of construction.
Uttar Pradesh	2 Major – Bansagar canal and Improving intensity of Hardoi Branch System	MoUs were signed with National Project Construction Corporation (NPCC) before sanctioning of the estimates and acquiring the required lands. Additional expenditure was incurred for rectification of the sub-standard work.



Financial Management

7.1 Release of Funds

Analysis of the State-wise grants released under AIBP for Major/ Medium Irrigation Projects from 2005-06 to 2007-08 revealed that about 75 to 85 per cent of the total grant was released to just six States namely, Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Orissa, as summarised below:

Table 16 - States which availed majority of the Grants under AIBP during 2005-2008

(Rs. in crore)

State	Grant Released			Total
	2005-06	2006-07	2007-08	
Andhra Pradesh	311.38	816.42	987.77	2115.57
Maharashtra	167.39	340.70	885.76	1393.85
Gujarat	339.60	121.89	585.72	1047.21
Orissa	148.00	133.12	609.49	890.61
Karnataka	140.78	160.37	349.90	651.05
Madhya Pradesh	168.10	25.81	372.02	565.93
Sub total of Selected States	1275.25	1598.31	3790.66	6664.22
Total release to all States	1709.25	1884.22	4483.95	8077.42
Percentage to the total funds release in r/o selected States	75	85	85	83

Chapter - 7Financial
Management

However, the performance of these states, in terms of completion of projects was very poor, as summarised below:

Table 17 - Profile of completion of projects in six selected states.

	Maharashtra	Andhra Pradesh	Orissa	Gujarat	Madhya Pradesh	Karnataka	Total
Total projects taken-up during 1996-2008	55	32	17	15	14	10	143
No. of Completed Projects	17 ¹⁴	11	6	10	5	2	51
Percentage of completed projects	31	34	35	67	36	20	36
No. of Ongoing Projects	38	21	11	5	9	8	92

Clearly, these six states (Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Orissa) were cornering the major part of AIBP grants without corresponding performance in terms of project completion. State-wise list of Major and Medium Projects taken up/ongoing during 2005-08 is given in **Annexure-VI**.



Recommendation - 9

Since AIBP is an Additional Central Assistance (ACA) programme, GoI may ensure equitable distribution of AIBP funds to states based on predefined criteria e.g. population dependent on agriculture, UIP yet to be fulfilled; and also past performance in completion/commissioning of projects and utilisation of targeted IP under AIBP.

7.2 Non-submission of Utilisation Certificates (UCs) and Statements of Expenditure (SOEs) by State Governments.

- In terms of the AIBP Guidelines, the second installment of the CLA/ Grant was to be released by the GoI only after submission of UCs in respect of the first installment. Audit scrutiny, however, revealed that in Gujarat, Himachal Pradesh and Karnataka (3 States) the second installments for the States were irregularly released by the GoI before submission of the UCs for the first installment.
- AIBP guidelines (1998-99 onwards) envisaged that the States would be required to submit audited statements of expenditure on the projects within nine months of the completion of the financial year. Further, the guidelines effective from December 2006 also envisaged the release of central assistance for the subsequent years would not be considered if audited Statements of Expenditure (SOEs) were not furnished within nine

¹⁴ None of the projects were commissioned

months. It was, however, observed that the audited SOEs in respect of each project were not being sent in support of the Utilisation Certificates (UCs) by the State Governments of Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Mizoram, Nagaland, Rajasthan, Uttar Pradesh and West Bengal (12 States).

7.3 Non-conversion of Grant to Loan

As per the AIBP guidelines, if the State Government failed to comply with the agreed date of completion of the project, as mentioned in the MoU, the grant component released would be treated as loan and recovered as per the usual terms of recovery of central loan. It was however observed in audit that:

- In Andhra Pradesh, for five projects¹⁵ which were originally scheduled to be completed between March 2007 and March 2008, the CWC/MoWR gave extension of time up to March 2009 without invoking the above clause. In effect, the grant amount of Rs.230.88 crore or any part of it had not been converted into a loan as envisaged under the guidelines.
- In Rajasthan, the Narmada Canal and Gang Canal Modernisation Projects taken up under AIBP in 1998-99 and 2000-2001 respectively were to be completed within four years. The State Governments, however, extended the date of completion of these projects and fixed the revised targets for creation of irrigation potential. Resultantly, due to non-completion of phased targets of these projects within the prescribed period, the grant of Rs 166.20 crore (Rs 150.17 crore released in 2006-08 for Narmada Canal Project and Rs 16.03 crore in 2007-08 for Gang Canal Modernisation project) was required to be converted into a loan and recovered from the State as per the usual terms of recovery of Central loan. This was, however, not done, violating AIBP guidelines.
- In Himachal Pradesh, 18 minor irrigation projects in 4 divisions¹⁶ approved by the Government of India between July 2000 and October 2005 at a total cost of Rs. 9.67 crore could not be completed by the concerned divisions by the targeted date (between 3/2003 and 3/2008) of completion. Thus, the grant of Rs. 5.03 crore (between May 2006 and February 2007) was to have been converted as loan, with interest due of Rs. 1.44 crore at the rate of 13 per cent per annum. No such action was taken by the Ministry.

Recommendation - 10

In order to encourage the defaulting State Governments to ensure timely completion of projects, GoI must apply the provision for conversion of grant to loan in all cases of serious slippages in completion schedule, as provided for in the MoU.

¹⁵ Veligallu Reservoir Project - Kadapa, Thotapalli Barrage Project - Vizianagaram, Alisagar Lift Irrigation Scheme - Nizamabad, Khomaram Bhim Project - Adilabad, and Ralivagu Project - Adilabad

¹⁶ Baggi, Kullu-1, Padhar and Solan

Chapter - 7

Financial
Management

7.4 Release of Funds by GoI at fag end of financial year

Analysis of the sanction orders issued by the Ministry of Finance (MoF) during 2003-04 to 2007-08 for release of funds to various States under AIBP revealed that huge quantum of funds were released during the last quarter, especially during the month of March of the relevant year as detailed below:

Table 18 - Percentage of funds released between 2003-04 and 2007-08

Year	Percentage of funds released during last quarter	Percentage of funds released during March
2003 - 04	75	54
2004 - 05	75	72
2005 - 06	55	55
2006 - 07	81	52
2007 - 08	59	55

Details of Sanctions issued between 2003-04 and 2007-08 are given in **Annexure-VII**.

As the funds were being released by the MoF at the fag end of the year, the State Governments were, consequently, releasing the funds to the implementing agencies very late. Resultantly, in order to show utilisation of the funds received, the implementing agencies were either misreporting their financial achievements, diverting the available funds for non AIBP purposes, or resorting to various irregular/unauthorised expenditures as discussed in the succeeding paragraphs.

7.5 Rush of Expenditure by State Governments

Due to release of funds at the fag end of the financial year by the MoF, the State Governments in turn released funds to the implementing agencies in the last quarter of the financial year in Arunachal Pradesh, Jharkhand, Kerala, Manipur, Orissa, Punjab, Rajasthan, Tripura, Uttar Pradesh, Uttarakhand and West Bengal (11 States). The details of rush of expenditure in the closing months of the financial years are given below:

Table 19 - Rush of Expenditure

State	Expenditure made in last quarter of the year (as percentage of the total Expenditure)	Expenditure made in last month (March) of the year (as percentage of the total Expenditure)
Andhra Pradesh	76 to 83 percent during 2003-08	69 to 73 percent during 2003-08
Jharkhand	–	21 to 80 percent during 2003-08
Kerala	100 percent in respect of Kallada Irrigation Project (KIP) during 2005-06 and 70 to 84 percent in respect of Muvattupuzha Valley Irrigation Project (MVIP) during 2003-06	–

State	Expenditure made in last quarter of the year (as percentage of the total Expenditure)	Expenditure made in last month (March) of the year (as percentage of the total Expenditure)
Manipur	—	23 to 67 percent in respect of Thoubal Multipurpose Project (TMP) and 50 to 100 percent in respect of MIPs
Orissa	61 percent during 2003-08 in respect of four major/ medium projects.	38 percent during 2003-08 in respect of four major/ medium projects
Punjab	35 to 100 percent during 2007-08 in respect of two medium projects	41 to 46 percent during 2007-08 in respect of two medium projects
Rajasthan	49 to 96 percent during 2003-08	18 to 61 percent during 2003-08
Tripura	33 to 61 percent during 2003-08 in respect of Khowai Medium Irrigation Project (KMIP)	14 to 46 percent during 2003-08 in respect of Khowai Medium Irrigation Project (KMIP)
Uttar Pradesh	—	53 to 81 percent
Uttarakhand	28 to 76 percent during 2003-08	11 to 44 percent during 2003-08
West Bengal	36 to 100 percent during 2004-08	32 to 100 percent during 2004-08



Recommendation - 11

In order to maintain the sanctity of the budgeting process, MoF/MoWR must ensure release of AIBP funds well in time, and not in the last quarter or in March.

7.6 Short and Delayed Release of funds by State Governments

For smooth implementation of the Projects, AIBP Guidelines stipulated that the GoI funds released by the MoF were to be further released by the State Governments, alongwith the State's share, to the implementing agencies within 15 days of the receipt of the GoI funds. However, the State Governments either did not release the funds within the stipulated period or did not release the entire GoI funds alongwith the requisite state share resulting in short release of funds in Arunachal Pradesh, Assam, Gujarat, Jammu & Kashmir, Kerala, Manipur, Mizoram, Nagaland, Punjab, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal (14 States). Details of cases of short/ delayed release of funds by the State Government to the implementing agencies are given below:

Chapter - 7

Financial
Management

Table 20 - Instances of short release/delayed release of GoI funds by State Governments

State	Short Release by State Government to implementing agencies	Delayed Release by State Government to implementing agencies
	Amount (Rs. in crore)	Details
Andhra Pradesh	4.64	Out of the total funds of Rs. 45.96 crore received from MoF, the State Government released only Rs. 41.32 crore to various divisions during 2007-08. The Department did not receive funds during the working seasons.
Assam	32.27	Short releases made by the State Government to project implementing authorities during 2003-08. Delays ranging from 37 to 376 days.
Gujarat	35.94	This includes short release of (i) Rs.3.33 crore by Government of India to the State Government, during 2003-08 in respect of five Projects ¹⁷ (other than SSP) and (ii) Rs.32.61 crore by the State Government to project implementing authorities during 2003-05 in respect of Bhadar-II. –
Jammu & Kashmir	–	– Delays ranging from 28 and 184 days during 2004-08.
Kerala	29.60	There was short release of funds by the State Government to project implementing authorities for Muvattupuzha Valley Irrigation Project (MVIP) during 2003-04, 2005-06 & 2006-07 and for Karapuzha Irrigation Project (KRP) during 2007-08. –
Manipur	3.47	There was short release of funds by the State Government to project implementing authorities during 2006-08 in respect of Minor Irrigation Projects Delays ranging from 10 to 450 days in respect of Thoubal Multipurpose Project (TMP) and Minor Irrigation Projects.
Mizoram	–	– The State Government released funds, at the fag end of the year during 2003-08.
Nagaland	–	– Delays ranging from 10 to 210 days.
Punjab	–	– The State Government released an amount of Rs.10.50 crore for the project "Extension of Kandi Canal Stage II" in June 2005 though the amount was sanctioned in November 2002.

¹⁷ Mukteshwar, Bhadar-II, Aji-IV, Brahmani and Ozat-II

State	Short Release by State Government to implementing agencies	Delayed Release by State Government to implementing agencies
	Amount (Rs. in crore)	Details
Sikkim	0.61	Against the receipt of Rs. 8.15 crore from Gol towards Central assistance for 2003-08 under AIBP schemes, the State Government did not provide the matching share which resulted in short release of State share.
Tripura	–	–
Uttar Pradesh	9.00	There was short release of funds by Engineer – in Chief/ Chief Engineer to various executing divisions of five selected projects during 2003-08.
Uttarakhand	–	–
West Bengal	–	–
Total	Rs. 115.53 crore	



Recommendation - 12

Gol may take up the matter with the concerned State Governments to avoid short release and delayed release of AIBP funds to the implementing agencies. Further, a system should be put in place for monitoring releases on a project-wise basis.

7.7 Diversion of Funds

7.7.1 Diversion of AIBP funds in Gujarat

Diversion of AIBP funds in respect of Sardar Sarovar Project (Gujarat)

Gol released Rs. 675.20 crore for extending irrigation benefits to drought prone area (DPA). Audit scrutiny revealed that ten branch canals¹⁸ were proposed to be developed under DPA. Sardar Sarovar Narmada Nigam Limited (SSNNL) provided utilization certificates to Gol, certifying that the funds provided under DPA were spent on the branch canals. However, the branch canals covered under DPA had already been constructed or were under construction, when the DPA component under AIBP was introduced. This implied that the SSNNL gave incorrect UCs to Gol, and the funds provided under DPA were used by it on works other than those covered under AIBP DPA.

¹⁸ Narsinghpura, Maliya, Vallabhipur, Viramgam I&II, Kharaghoda, Jijanuwada, Goriya, Rajpura and Amarapura

Chapter - 7Financial
Management

Audit scrutiny also revealed that during the period 2003-04 to 2004-05, against the actual expenditure of Rs. 1702 crore incurred by the SSNNL, the State Government reported an expenditure of Rs. 2987 crore to GoI. Thus, the State Government overstated expenditure incurred under AIBP.

7.7.2 Other Cases of Diversion of Funds

An amount of Rs. 280.00 crore received by the various implementing agencies were either parked in banks, utilised under other miscellaneous heads of accounts not related to AIBP or diverted for utilisation on non-AIBP works/ projects under the implementing agency, or given as advances not recovered/ adjusted etc. in Assam, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Manipur, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tripura and Uttar Pradesh (14 States). Details of such cases of parking and diversion of programme funds are given below:

Table 21 - Instances of Diversion of Funds

State	Amount (Rs. in crore)	Details
Assam	0.31	Diverted to meet expenditure of consultancy services and purchase of vehicle.
Haryana	15.34	<ul style="list-style-type: none"> ■ Executive Engineer, Construction Division No.17, Karnal diverted funds amounting to Rs. 10.51 crore, received in 2006-07, for payment of arbitration awards. ■ In Narwana Water Services Division, Rs. 4.83 crore was diverted during 2004-05 for construction of a link channel, which was not an approved AIBP component.
Himachal Pradesh	0.40	In 1 medium and 4 minor projects, funds were utilized between March 2006 and March 2008 on other schemes.
Jammu & Kashmir	2.02	Funds in respect of three test-checked schemes were diverted during the period 2003-04 to 2007-08 on activities not related to the programme of AIBP.
Jharkhand	10.50	In three projects (Panchkhero, Sonua and Upper Shankh Reservoir), funds were either advanced to Rehabilitation Officer without proper accountal, or parked in banks for periods ranging between 15 and 102 months.
Karnataka	8.80	In two projects (Upper Krishna Project – Stage II and Karanja Project), funds were diverted for incurring expenditure on non-AIBP components viz. payment for bills pertaining to earlier periods, maintenance of buildings & equipments, beautification works, etc.
Manipur	3.74	In Thoubal Multipurpose Project and MI Projects, funds were diverted for non AIBP components viz. construction of staff quarters, office building, wall fencing, approach road, purchase of vehicle, camera, stationery, petrol, repair works, payments to Work Charged & Muster Roll staff, payment of electricity bills etc.

State	Amount (Rs. in crore)	Details
Nagaland	0.29	Funds were diverted for purchase of vehicles, computers and furniture etc., which were not covered in the approved estimates.
Orissa	9.39	Funds were diverted towards execution of flood damage repair works, construction of road, purchase of shutters and purchase of material not required for immediate use in the work.
Punjab	15.12	Funds were either parked in Bank Accounts or diverted to other projects.
Rajasthan	182.25	<ul style="list-style-type: none"> ■ In the Narmada Canal Project, a payment of Rs 143.13 crore was made to Jodhpur Vidyut Vitran Nigam Limited (JVNL) for 33/11 Kilowatt power line/sub-station, and the expenditure was booked irregularly on the Project, though there was no provision for such expenditure. ■ A payment of Rs 28.52 crore was made to the contractors during 2006-08 for the cost of sprinkler system, high density polyethylene (HDPE) pipelines, pump houses, sumps, motors, pumps etc., and irregularly charged to the project, though the entire cost of such works was to be borne by the WUAs, as per the project report. <p>In two other projects (IGNP Stage-II Project and Gang Canal Modernisation project), funds were diverted for maintenance and repair works, rehabilitation works taken up under World Bank funded projects and for making payment for works executed prior to inclusion of project under AIBP.</p>
Sikkim	0.25	Funds were diverted towards payment of salaries of work-charged employees, purchase of stock materials for works not covered under AIBP, and debris clearance which was not permitted under AIBP.
Tripura	0.94	In four divisions, AIBP funds was diverted towards payment of electricity consumption bills, flood protection works, maintenance works of different Deep Tube Well (DTW) and Lift Irrigation Schemes .
Uttar Pradesh	30.65	Funds were diverted at the level of Engineer-in-Chief / Chief Engineer to bear the expenditure of Computer Centre and its staff-in E-in-C's office, for payment of bills not related to the division, and on works not sanctioned under the project.
Total	Rs. 280.00 Crore	



Recommendation - 13

Gol may recover the amounts diverted by the State Governments, if necessary, by making deductions from the next instalment of Plan Assistance to the defaulting State Governments.



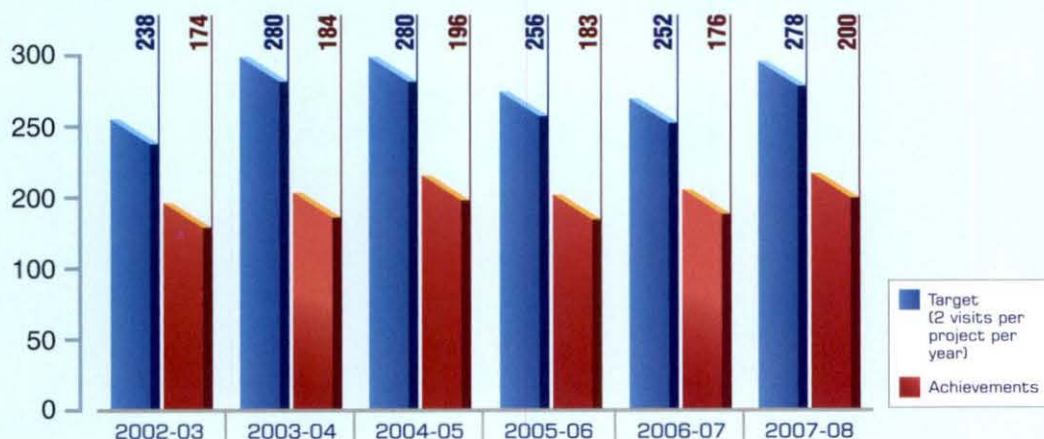
Monitoring and Evaluation

8.1 Inadequate Monitoring by Central Water Commission

The CWC is to carry out monitoring visits and submit status reports in respect of Major / Medium projects at least twice a year for the period ending March and September of the year. The MI projects are to be monitored periodically on a sample basis by CWC and assessed against pre-determined targets by the MoWR. Audit scrutiny, however, revealed the following:

- As per the information made available by the CWC, the visits made for monitoring ranged between 66 per cent to 73 per cent of the stipulated number during 2002-03 to 2007-08. A comparative chart in respect of the achievement of monitoring visits is detailed below:

Chart 9 - Achievement of Monitoring Visits by CWC



Chapter - 8**Monitoring
and
Evaluation**

Further, as per information made available by MoWR, in respect of Minor Irrigation Projects being implemented under AIBP, monitoring visits had been made by MoWR/ CWC only in 10 states covering 57 projects (out of 8699 MI Projects being implemented under AIBP) as detailed in **Annexure – VIII**.

8.2 Deficient State and Project Level Monitoring

The four tier monitoring system of AIBP includes monitoring at State level and Project level. Further, the progress of minor irrigation schemes is to be monitored by the State Governments through agencies independent of the construction agencies. Audit scrutiny, however, revealed:

- State Level Monitoring Committees had not been formed in Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Uttarakhand and West Bengal (22 States).
- Project Level Monitoring Committees had not been formed in Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Uttarakhand and West Bengal (20 States).
- The CWC failed to monitor MI Schemes periodically on a sample basis in Arunachal Pradesh, Bihar, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Maharashtra, Manipur, Mizoram, Rajasthan, Uttarakhand and West Bengal (11 States). Further, the State Government also did not monitor the MI Projects through agencies independent of the construction agencies in Arunachal Pradesh, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Tripura, Uttarakhand and West Bengal (13 States).

8.3 Evaluation and Impact Assessment

- Ministry of Statistics and Programme Implementation (MOSPI) got the AIBP Projects in 28 States studied through 10 reputed organizations/ consultants and appointed Water and Power Consultancy Services (I) Ltd. (WAPCOS) as the coordinator with the responsibility of coordinating with all the consultants pertaining to 10 different zones and to prepare a consolidated report. The study, which considered the data of various parameters of AIBP upto September 2004, identified a total of 93 Major, 71 Medium, 15 ERM and 2904 Minor Irrigation Projects in 28 States and focused on the impact of implementation of AIBP Projects & benefits therefrom, shortfall/ bottlenecks in implementation, views and suggestions for speedy completion with special reference to mode of funding and terms of repayment of CLA. The report was finalized in January 2008.

- The Study, in its concluding remarks, identified various constraints which had an adverse impact on the project implementation and returns on investment which needed to be removed. These constraints/ problems included:
 - ▲ Land acquisition.
 - ▲ Payment of compensation to displaced persons.
 - ▲ Clearance from statutory authorities, especially Forest Clearance.
 - ▲ Recruitment & proper placement of qualified staff.
 - ▲ Contract management at project level.
 - ▲ Delay in release of funds to the project authorities.

The study, apart from highlighting State-wise achievements/ bottlenecks in implementation/ suggestions for improvement etc., gave general recommendations which included the following:

- ▲ Special efforts need to be made at Central/ State Levels for timely release of AIBP funds to the project authorities.
- ▲ Efforts need to be made to eliminate contractual management problems at project level.
- ▲ Problems of land acquisition and forest clearance need to be resolved by appropriate legislative and administrative reforms.
- ▲ Various institutions which are to be involved for benefit realization viz. Agriculture department, Panchayati Raj, cooperative, and financial & credit institutions; research organizations etc. must come together and take responsibility for providing inputs. This aspect was largely neglected.
- ▲ In all future AIBP Projects, planning for production and marketing should be an important element and those States which cannot take up this work should be made to accept this as a precondition for getting AIBP support.
- ▲ Adequate measures are required to compensate project affected people. All land acquisition and compensation should be made maximum within two years of project initiation. There should be project clearance deadlines for each Ministry/ Authority. Unless clearance is provided after submission of relevant documents by project authorities, it should be presumed that clearance has been obtained.
- ▲ There is need for close scrutiny of ex-ante crop production data provided in the project reports to obtain project clearance from the GoI. The highly exaggerated productivity figures inflate BC Ratio and economic rate of return, thereby improving the chance of inclusion under AIBP.

Chapter - 9Monitoring
and
Evaluation

Despite the fact that such an elaborate evaluation had been carried out by MOSPI and the report was finalized in January 2008, the MoWR/ CWC did not make any effort to circulate the report of the Evaluation Study to the States/ implementing agencies of the Projects, to share the findings of the study and initiate remedial measures on the constraints highlighted in the study. This is evident from the fact that the State Governments/ implementing agencies of Arunachal Pradesh, Chhattisgarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Uttar Pradesh, Uttarakhand and West Bengal (19 States) reported that the State Government/ CWC/ MoWR had not conducted any type of study, evaluating the AIBP.

- Remote Sensing Technology (RST) was not used to monitor the progress of the AIBP Projects in Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal (22 States).
- As per the information made available by MoWR, the National Remote Sensing Agency (NRSA), Hyderabad was entrusted with the conduct of a study to evaluate the physical achievements of 56 AIBP projects, out of which reports in respect of 17 AIBP Projects had been submitted to the CWC as of June/ July 2008. The MoWR/ CWC, however, did not make any effort to share the results of the study with the State Governments as is evident from the fact that the State Governments of Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Maharashtra, Manipur and Orissa, implementing these 17 Projects were unaware of any such monitoring study using RST.

**Recommendation - 14**

The Ministry/ CWC should ensure that the stipulated monitoring visits twice a year to all major and medium projects are carried out without fail. As regards minor irrigation projects, a reasonable sample of projects should be inspected by the Ministry/ CWC; if CWC is unable to carry out such inspections, the Ministry may consider hiring its own consultants for such inspections.



Conclusion

The Accelerated Irrigation Benefits Programme had failed to achieve its targeted objective of accelerating completion of large irrigation projects and delivery of the benefits of irrigation water to the farmers, despite lapse of more than 13 years since its inception and release of nearly Rs. 26,000 crore of GoI assistance. While progress in completion of major, medium, and minor irrigation projects already taken up under AIBP was very poor, fresh projects were being taken up under the programme and funds provided for such new projects, without adequate attention being focussed on existing incomplete projects. Even the irrigation potential reportedly created under AIBP projects was not being fully utilised, and the Ministry of Water Resources did not have project-wise data regarding utilisation of irrigation potential. In the case of minor irrigation projects, the Ministry did not have project-wise details regarding either creation or utilisation of irrigation potential and could only furnish lump sum figures on a year-wise and State-wise basis.

There were numerous deficiencies in planning and approval of AIBP projects, particularly in the formulation of DPRs as well in the calculation of Benefit Cost Ratio (BCR) to assess the economic viability of projects. Project execution was also deficient, with lack of synchronised execution of different project components (dam and headworks; main and branch canals; distributaries; and water courses), construction of canals in patches with substantial gaps, and delayed completion of railway and highway crossings. Non-fulfilment of pre-requisites, viz. timely acquisition of the complete land required and obtaining forest and other clearances were other major hindrances to project execution.

Chapter - 9

Conclusion

Financial management was poor, with the majority of grants during 2005-08 being released to just six States without adequate linkages to project completion. There were also large scale instances of diversion of AIBP funds for other purposes, grant of undue benefits, and other cases of irregular and unauthorised expenditure. Monitoring and evaluation systems, both at the Central and State levels, were also deficient; in the case of minor irrigation projects, monitoring by CWC was insignificant.

The GoI needs to take firm steps to ensure the achievement of the targeted objectives of AIBP, by focusing on completion of existing projects (rather than taking up more fresh projects), and ensuring and monitoring utilisation of irrigation potential already created, so that the huge funds invested in these projects are put to productive use.



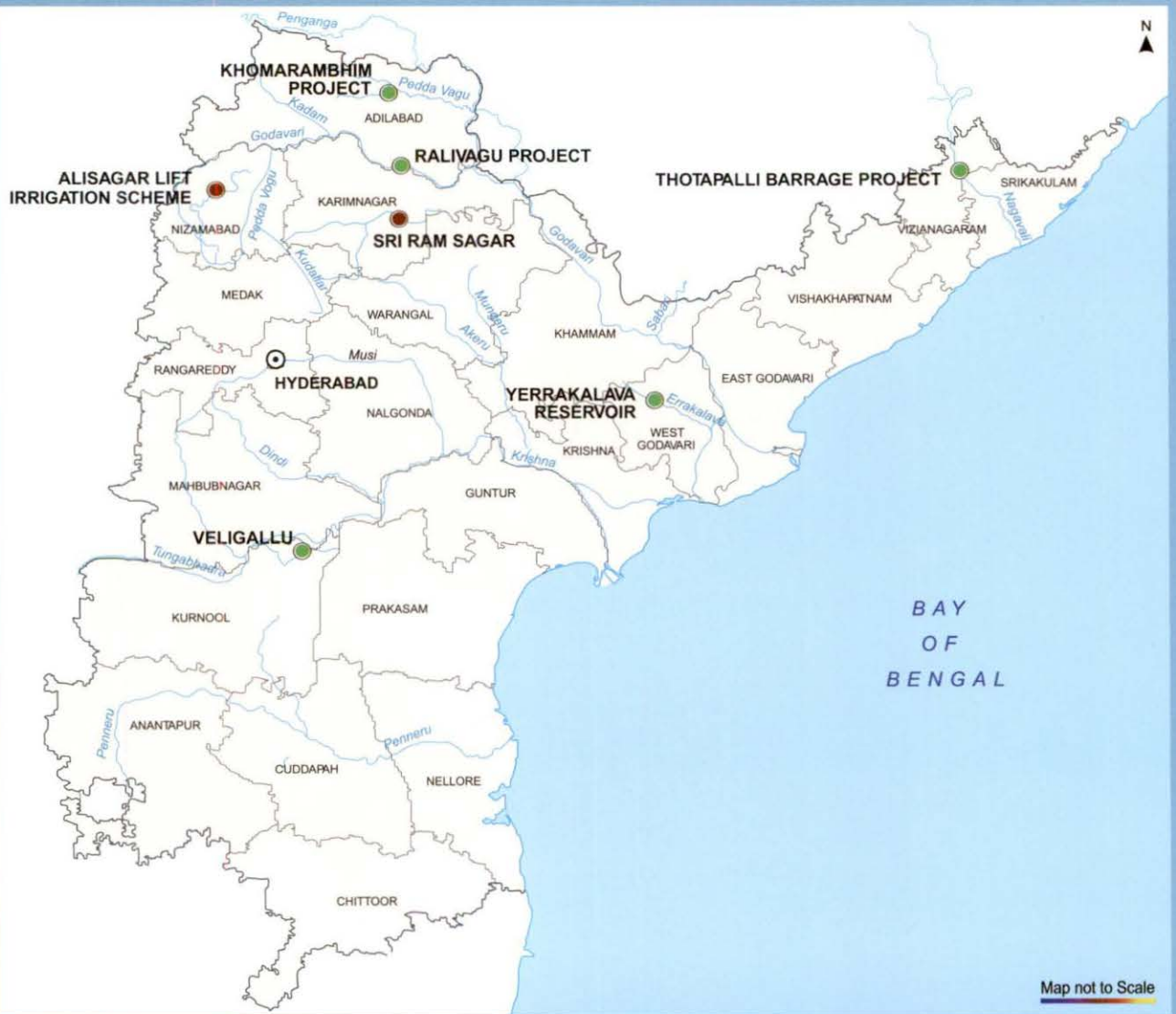
State Specific Findings

10



- 10.1 Andhra Pradesh
- 10.2 Arunachal Pradesh
- 10.3 Assam
- 10.4 Bihar
- 10.5 Chhattisgarh
- 10.6 Gujarat
- 10.7 Haryana
- 10.8 Himachal Pradesh
- 10.9 Jammu & Kashmir
- 10.10 Jharkhand
- 10.11 Karnataka
- 10.12 Kerala
- 10.13 Madhya Pradesh
- 10.14 Maharashtra
- 10.15 Manipur
- 10.16 Meghalaya
- 10.17 Mizoram
- 10.18 Nagaland
- 10.19 Orissa
- 10.20 Punjab
- 10.21 Rajasthan
- 10.22 Sikkim
- 10.23 Tripura
- 10.24 Uttar Pradesh
- 10.25 Uttarakhand
- 10.26 West Bengal

ANDHRA PRADESH



LEGEND

State Capital	
State Boundary	
District Boundary	
Major Irrigation Projects	
Medium Irrigation Projects	



10.1.1 Background

During 1996-2008, GoI sanctioned 30 major/ medium irrigation projects and 61 minor irrigation projects in Andhra Pradesh, and released Rs. 2662 crore and Rs. 27 crore respectively towards these projects. Of these, a sample of 7 major/ medium irrigation projects and 10 minor irrigation projects was selected for detailed audit scrutiny:

10.1.2 Overall Status of Reported Completion of Projects

Of the total of 30 major/ medium irrigation projects 11 projects were sanctioned between 1996-97 and 2004-05, and Rs. 956.89 crore of GoI assistance was provided during 1996-2005. However, only six of these projects were reportedly complete, and five projects were still incomplete/ non-commissioned – one completed but not commissioned, two abandoned and one ongoing. Even in the case of the six completed projects, there were time overruns of one to five years, as detailed below:

Table S1 - Status of AIBP projects in Andhra Pradesh sanctioned upto 2004-05

S.No.	Name of Project	Type	Year of Sanction	Status	Remarks
1	Sriramsagar Stage-I	Major	1996-97	Commissioned	Delay of 5 years in completion
2	Cheyyeru(Annamaya)	Medium	1996-97	Commissioned	Delay of 2 years in completion
3	Jurala (VI)	Major	1997-98	Commissioned	Delay of 4 years in completion
4	Somasila	Major	1997-98	Completed but not functioning/ commissioned	—
5	Nagarjunasagar (III)	Major	1998-99	Commissioned	Delay of 3 years in completion
6	Madduvalasa (V)	Medium	1998-99	Commissioned	Delay of 1 years in completion
7	Gundalavagu (V)	Medium	2000-01	Abandoned	—
8	Maddigeda (V)	Medium	2000-01	Ongoing	Work still in progress
9	Kanupur canal (III)	Medium	2000-01	Abandoned	—
10	Yerrakaluva (V)	Medium	2000-01	Ongoing	Work still in progress
11	Vamsedhera phase I	Major	2002-03	Commissioned	Delay of 1 year in completion

Despite the poor progress of projects sanctioned during 1996-2005, 19 new projects were added under AIBP during 2005-08, and received GoI assistance of Rs. 1731.65 crore during this period; of these, none of the projects were reportedly complete. By contrast, the 11 projects sanctioned earlier

Chapter - 10

State
Specific
FindingsAndhra
Pradesh

under AIBP received GoI assistance of only Rs. 24.57 crore during the same period. The issue of certain states (including Andhra Pradesh) cornering the vast majority of AIBP funds during 2005-08, without linkages to the completion of AIBP projects and providing an incentive for inclusion of AIBP projects driven by construction work, has already been highlighted in para 7.1 of the report. This, further, shows lack of commitment by the state government in completing the older projects sanctioned under AIBP, with attention being focused on inclusion of fresh projects under AIBP and receipt of GoI assistance therefor.

As regards MI projects, only two of the 61 minor irrigation projects, which were taken up in 2006-07, were reportedly complete as of September 2008.

10.1.3 Status of Completion of Test-Checked Projects

Of the seven test-checked major/ medium irrigation projects, four projects i.e. Thotapalli barrage, Komaram Bhim, Ralivagu and Yerrakaluva were still incomplete, while three projects (SRSP Stage-I, Veligallu Project¹⁹, and Alisagar LIS) were reportedly complete. However, audit scrutiny of the reportedly complete projects revealed the following:

- In respect of the Veligallu project, there was 100 per cent shortfall in reported creation of irrigation potential (vis-à-vis the target) due to non-completion of rehabilitation & resettlement works. In respect of SRSP Stage-I and Alisagar LIS, the reported creation of irrigation potential could not be verified, as no supporting ayacut registers, water release schedules etc. were maintained by the Water Users Associations.
- There was variation in the figures of IP created reported by the State Government and MoWR as detailed below:

Table S2 - Variation in IP creation in respect of AIBP projects in Andhra Pradesh

S.No.	Name of Project	As reported by State Government to Audit		As per MoWR Report	Difference in IP created	Audit Findings
		IP targeted upto March 2008	IP created upto March 2008	IP created upto March 2008		
1	SRSP Stage-I, Karimnagar	122560 ha	115972 ha	117910 ha	1938 ha	No supporting ayacut registers, water release schedules etc., were maintained by the Water Users Association (WUAs).
2	Alisagar Lift Irrigation Scheme, Nizamabad	21769 ha	18473 ha	21769 ha	3296 ha	There was no new IP creation, as this Lift irrigation scheme was only stabilizing/ supplementing the source of existing ayacuts. Further, no supporting ayacut registers, water release schedules etc., were maintained by the Water Users Association (WUAs).

¹⁹ The project was declared complete by MoWR; however, this was not shown complete in the records of the state implementing agencies.

Photographs of two Ongoing AIBP projects in Andhra Pradesh as of September 2008

Chapter - 10

State
Specific
Findings

Andhra
Pradesh



Ongoing canal work in Yerrakaluva Project, West Godavari District



Ongoing work at Thotapally Barrage Project, Vizianagaram District

Chapter - 10

State
Specific
FindingsAndhra
Pradesh

- The project completion certificates in respect of the Alisagar LIS had not been prepared as of September 2008.

Out of 10 test-checked Minor Irrigation Projects:

- Only two projects (Formation of new tanks at Nambala and Thugeda villages of Adilabad district) were completed. However, completion reports had not been issued as of September 2008, as no water was released to the fields due to non-construction of field channels, despite water being impounded in the tanks. Thus, even these two complete projects were not delivering the intended benefits. The remaining 8 projects were still incomplete as summarised below:

Table S3 - Incomplete MI Projects test-checked in Andhra Pradesh

S.No.	Name of Project	Date of Start	Target date of Completion	Status as on Sep-2008	Reasons for non completion/ being non-functional
1	Formation of new tank across Mangli varrey near Nambala (V) Adilabad District	11.07.2006	10.07.2007	Work in progress	Completion reports had not been submitted. No water was released to the fields due to non-construction of field channels
2	Formation of new tank Rechini Ragadi near Rebbana (V) Adilabad District	16.07.2006	15.01.2007	Work in progress	—
3	Formation of new tank across Kankilavorre near Marrigudem (V) Adilabad District	21.02.2008	20.02.2009	Work in progress	Due to non-acquisition of land, the work had not commenced as of September 2008.
4	Formation of new tank across local stream near Nandulapalli (V) Adilabad District	27.12.2007	25.12.2008	Work in progress	—
5	Formation of new tank across branch of Bkkalavagu near Nandulapalli (V) Adilabad District	17.06.2008	16.06.2009	Work in progress	Due to non acquisition of land, the work had not commenced as of September 2008.
6	Formation of new tank across Mearamvagu near Medaram (V) Adilabad District	1.12.2007	1.12.2008	Work in progress	—
7	Construction of pick up anicut across Musi river near Muppavaram (V) Prakasam District	02..12.2006	1.09.2007	Work in progress	Non approval of tentative drawings of the projects and stoppage of works by the contractor.
8	Construction of multipurpose checkdam across Musi river near Ananthavaram (V) Prakasam District	21.07.2005	20.07.2006	Work in progress	Non approval of tentative drawings of the projects



S.No.	Name of Project	Date of Start	Target date of Completion	Status as on Sep-2008	Reasons for non completion/ being non-functional
9	Construction of anicut cum road across Maneru River near Machavaram (V) Prakasam District	12.01.2007	11.01.2008	Work in progress	Non approval of tentative drawings of the projects
10	Raising FTL & improvements to Valleru Tank near Valeru (V). Prakasam District	19.12.2007	18.12.2008	Work in progress	—

10.1.4 Planning and Approval of Projects

There were no preliminary project reports or DPRs for any of the selected 10 MI projects. Also, there were no scheme-wise calculations of BCR – only a certificate from the State Government that the BCR was more than 1. Nevertheless, these projects were approved for assistance by the GoI.

10.1.5 Financial Management

10.1.5.1 Undue benefits to contractors

Audit scrutiny revealed that contract agreements for two projects – Alisagar LIS and Thotapally Barrage Project – were awarded on fixed scope basis. However, the scope of work was not precisely defined, and was subsequently altered during execution. Further, the milestones for the project were not specified by the State Government, but were fixed on the basis of proposals from the contractors, and were also revised in cases of delay/ non-completion of work in accordance with the original milestones.

Further, undue benefits of Rs. 33.67 crore, primarily on account of variation in scope for fixed scope projects, were passed on to contractors, as summarized below:

Table S4 - Undue Benefits to Contractors in AIBP projects in Andhra Pradesh

S.No.	Name of Project	Amount (Rs. in crore)	Audit Findings
1	Alisagar Lift Irrigation Scheme	25.88	<ul style="list-style-type: none"> ■ Reduction of number of rows and length of pipeline during execution. ■ Though the agreement conditions stipulated that the contractor was responsible for construction of Road under Bridge, separate payment was made for that work.
2	Thotapalli Barrage Project	4.81	<ul style="list-style-type: none"> ■ There was reduction in the length of the canal by 2.26 Km while executing the work.

Chapter - 10

State
Specific
FindingsAndhra
Pradesh

S.No.	Name of Project	Amount (Rs. in crore)	Audit Findings
3	Sri Khomaram Bhim Project	2.98	<ul style="list-style-type: none"> ■ Two per cent of the agreement amount was to be deducted towards maintenance, but no such deduction was made from the intermediate payment. ■ Seigniorage charges amounting to Rs.0.32 crore on earth used for refilling of excavated Cut of Trench (COT) and formation of embankment with borrowed soils were not recovered.

10.1.5.2 Other Financial Irregularities

Table S5 - Irregularities in Financial Management of AIBP Projects in Andhra Pradesh

Nature of Irregularity	Details
Non-submission of UCs	<ul style="list-style-type: none"> ■ Utilisation Certificates for Rs. 12.55 crore (Rs 5.84 crore for Yerrakalva and Rs 6.71 crore for Ralivagu projects) of Gol assistance during 2004-07 had not been submitted to CWC.
Diversion of funds	<ul style="list-style-type: none"> ■ Expenditure of Rs. 1.21 crore was irregularly incurred out of AIBP funds for repair work on the Yerrakalva Project.
Wasteful expenditure	<ul style="list-style-type: none"> ■ In one minor irrigation project (Construction of multipurpose checkdam across Musi river near Avarama), an anicut with two lift irrigation schemes was to be constructed at a cost of Rs. 7.80 crore. The contractor, however, stopped the work after completing the anicut at a cost of Rs. 1.97 crore. No irrigation potential had, thus, been created without the lift irrigation.

10.1.6 Monitoring & Evaluation

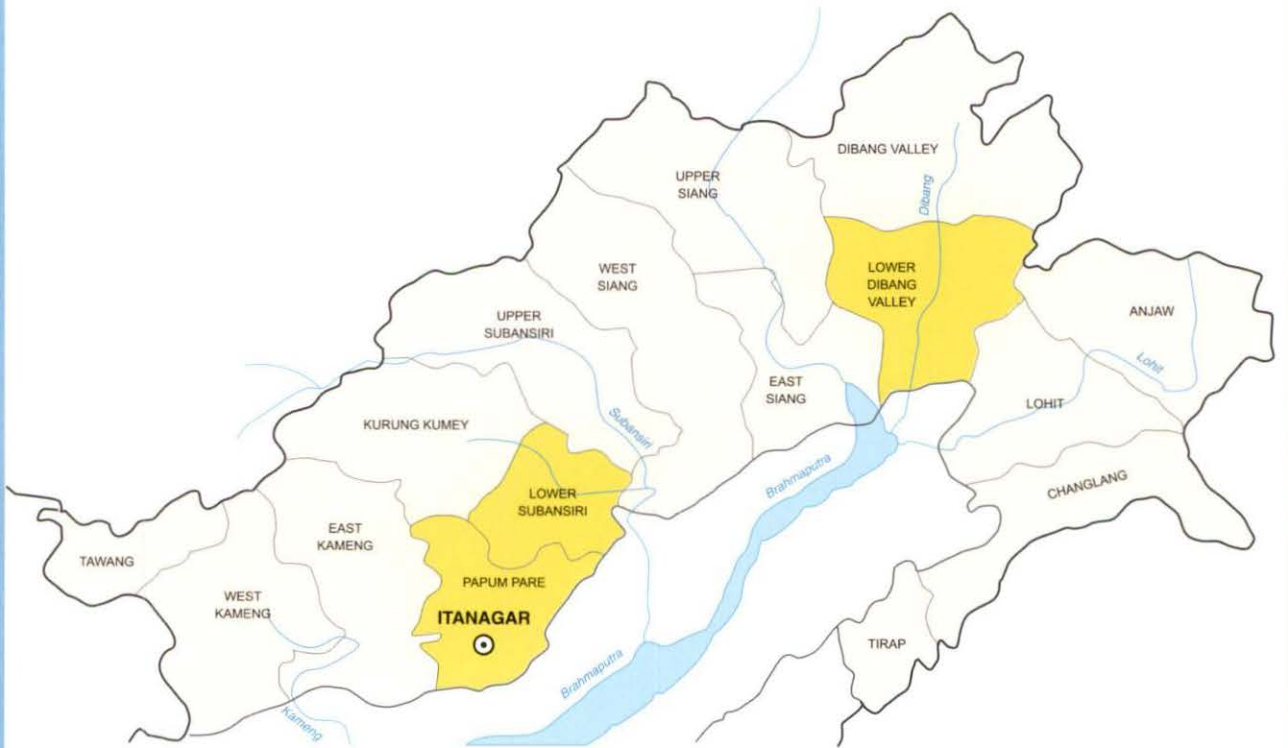
- No mechanism for evaluation of projects to assess creation of envisaged Irrigation Potential, the increase in Agricultural Production/Irrigated area of the major crops, multiple cropping system, and the achievement of the desired Benefit Cost ratio existed in the State.
- In the selected 7 major/ medium projects, there was a substantial shortfall in field inspections by CWC, ranging from 50 to 86 per cent.





ARUNACHAL PRADESH

N
▲



Map not to Scale

LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Coverage of Minor Irrigation Projects	■



10.2.1 Background

During 1999-2008, GoI sanctioned 1736 minor irrigation projects in Arunachal Pradesh, and released Rs. 154 crore towards them. Of these, 749 projects were sanctioned during the period 2003-08, and assistance of Rs. 135 crore released for these projects.

Table S6 - MI Projects in Arunachal Pradesh

Year of Sanction	Number of projects Sanctioned	Completed	Total Availability of Funds (GoI Share + State Share) (Rs. in Crores)	Reported Expenditure (Rs. in Crores)
2003-2004	275	275	25.00	25.00
2004-2005	00	00	12.50	12.50
2005-2006	243	211	22.50	22.50
2006-2007	178	00	29.70	29.70
2007-2008	53	00	45.45	45.45
Total	1736	1473	135.15	135.15

Out of the 749 projects, 21 projects in three divisions (Itanagar, Ziro and Pasighat) of the Water Resources Department were selected for detailed audit scrutiny.

10.2.2 Overall Status of Reported Completion of Projects

Out of the 1736 projects sanctioned during 1999-2008, 1473 projects were reportedly complete, as of November 2008. Further, out of 749 projects sanctioned during 2003-08, only 486 projects were reportedly completed; none of the 231 projects sanctioned during 2006-08 were reportedly complete.

10.2.3 Status of Completion of Test-Checked Projects

While all the 21 projects selected for audit scrutiny were reportedly complete, field audit revealed that 11 of these projects were not in functional condition, as summarized below:

Chapter - 10

State
Specific
Findings

**Arunachal
Pradesh**



Due to heavy floods in June 2008, 25 metre of the field canal was damaged. This was subsequently repaired using 3-4 GI pipes. However, this was not sufficient to restore the full flow of water, and there was no water in 300 metre of channel on the second side of the command area.

Damaged field channel in MI Project at Ganga Village, Itanagar Division

There was no water supply in the main field canal, as the retaining wall at the main head had been completely damaged, reportedly by floods during June 2008. Further, about 500 metre of the main canal was found fully buried under sand and debris.



Damaged headwork at MI Projection Kanabung Village, Itanagar Division



The head work and main canal in the MI Project was totally damaged, reportedly by floods in June 2008. The 300 metre main channel was fully buried under sand and rocky dunes.

Non-existent headwork at MI Project in Naharlagun Model Village, Itanagar Division

Chapter - 10

State
Specific
Findings

**Arunachal
Pradesh**



The headwork was totally damaged, reportedly by floods in June 2008, and could not be identified during the field visit. Further, 20 metre of the main channel was completely buried under debris and rocky stones and could not be traced, while the remaining part of the channel of 40 metre was partially filled with sand.



Non-existent headwork at M1 Project in Mane Village, Itanagar Division



About 900 metre of earthen canal was found damaged at many places due to landslides, and no water was flowing through the main channel from the headworks to the tail end.

Damaged earthen canal at M1 Project from Teri River to Makam Happa at Yachuli Village, Ziro Division

About 900 metre of earthen canal was found damaged at many places due to landslides, and no water was flowing through the main channel from the headworks to the tail end.



Damaged earthen canal at M1 Project from Teer Stream to Hoya Happa at Yachuli Village, Ziro Division

Chapter - 10

State
Specific
Findings

**Arunachal
Pradesh**



The headworks and the renovated section of the channel of 20 metre from the main source were found totally damaged. In addition, the remaining portion of the main channel was damaged and covered with debris and sand. Although the villagers had made some makeshift arrangements, the full quantum of water at the starting point was not reaching the tail end.

Completely damaged main field channel at "Improvement and Renovation of Sigo Nallah MI Project" at Ngorlung Village, Pasighat Division

The headwork was completely damaged, and the 100 metre concrete and cement work on the main side wall, which was reportedly carried out with AIBP funding, was buried under rocky stones. Beneficiaries had made alternate arrangements for flow of water, by raising the height of the side wall with rocky stones.



Completely damaged headwork at "Renovation of Headwork of Gagur MI Project" at Niglok, Pasighat Division



The original headwork was completely damaged, and water was being diverted by a temporary headwork of wire created boulders. There was approximately 50 per cent loss of water in transit, most probably due to water seepage, and beneficiaries requested construction of the entire earthen embankment of the channel in pucca form.

Damaged headwork and makeshift arrangements at Sille to Dekam MI Project at Ledum, Pasighat Division

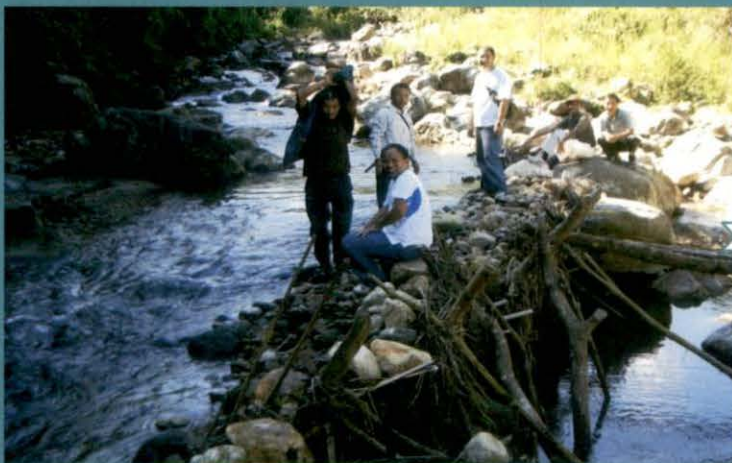
Chapter - 10

State
Specific
FindingsArunachal
Pradesh

The retaining wall of the head work, required for storing the water at the source and lifting it for diversion to the main field channel, was totally damaged. Consequently, no water was flowing through the main field channel.



Damaged headwork at Eme Garsing (M) & Rangkop Area at Sigar, Pasighat Division



Head work stated to have been constructed in 30 metre area, was found to be totally damaged and washed away. Presently, the water from main stream to the main channel had been diverted with an alternative arrangement of raised platform/ structure constructed/ with the support of wire created boulders.

Damaged headwork at "Improvement and Renovation of Sipir MI Project" at Ayang Village, Pasighat Division

10.2.4 Planning and Approval of Projects

Audit scrutiny of Minor Irrigation Projects revealed the following:

- Contrary to the AIBP guidelines, five improvement and renovation works in Pasighat and Ziro Divisions at a cost of Rs. 56.20 lakhs were approved and taken up under AIBP.
- Although the project proposals were stated to be based on prior survey and investigation, no survey reports were shown to audit, and the authenticity of data indicated in the DPRs could, thus, not be verified.
- The DPRs did not indicate the schedule for completion.

Chapter - 10State
Specific
Findings**Arunachal
Pradesh****10.2.5 Financial Management**

Audit scrutiny revealed the following irregularities in financial management:

Table S7 - Irregularities in Financial Management of AIBP Projects in Arunachal Pradesh

Nature of Irregularity	Details
Short release of funds	<ul style="list-style-type: none"> Out of the total funds of Rs. 45.96 crore received from MoF, the State Government released only Rs. 41.32 crore to various divisions during 2007-08.
Rush of expenditure	<ul style="list-style-type: none"> Unusual rush of expenditure during the last quarter of the financial year, in particular the month of March, during 2003-08; between 69 to 73 per cent of the annual expenditure was incurred in March, and 76 to 82 per cent of the annual expenditure was incurred in the last quarter.

10.2.6 Non-functional Water Users Associations

According to the AIBP guidelines, projects were to be handed after completion to Water Users Associations, who would be responsible for their maintenance by levying water charges. However, audit scrutiny of the 21 test-checked projects revealed that the Water Users Associations were not fully functional, nor had assets created under AIBP been handed over to the users. Further, water distribution schedules were also not found in place.

10.2.7 Monitoring and Evaluation

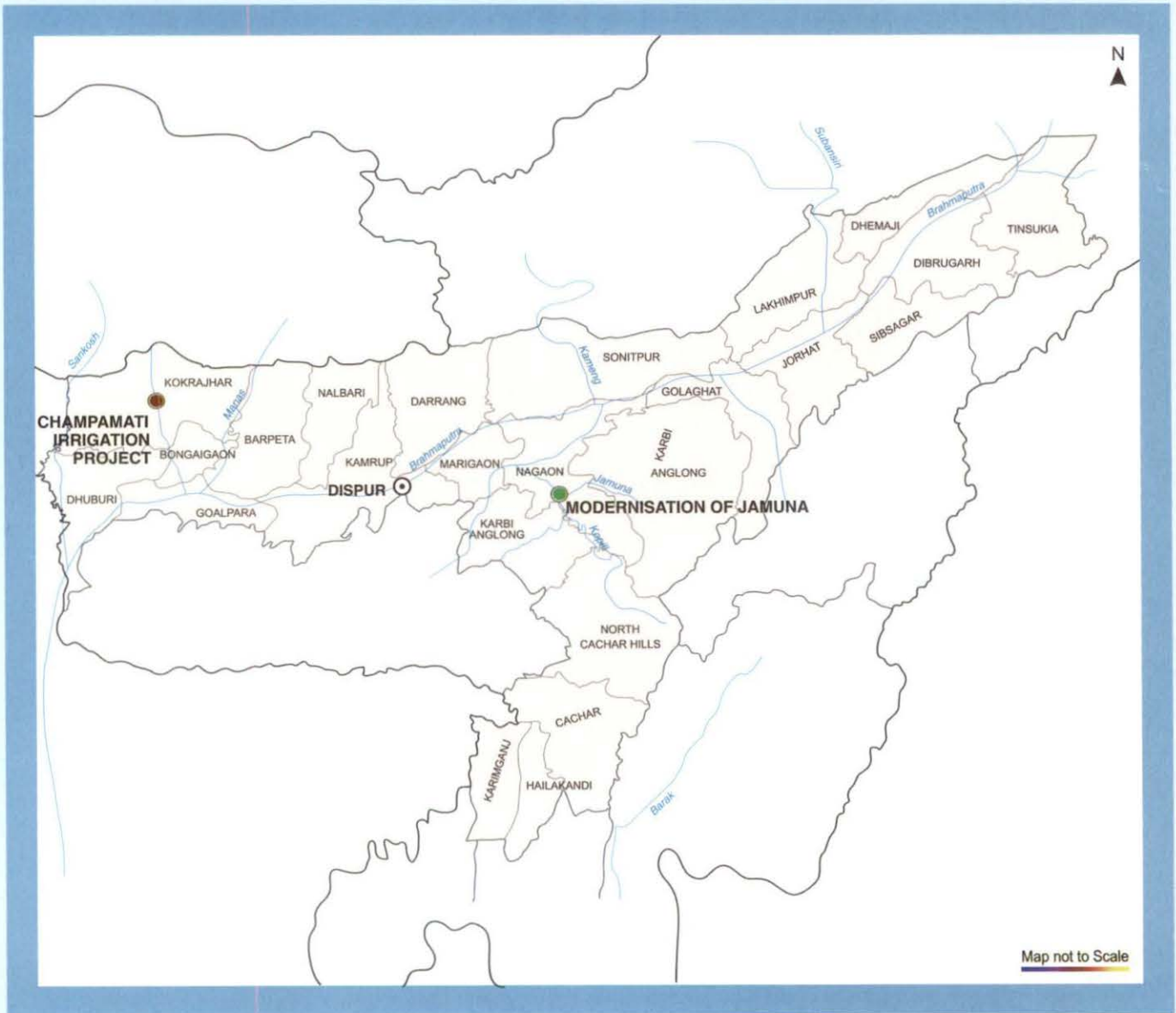
Audit scrutiny revealed that:

- The State Level Monitoring Committee had not been formed. Further, Project Level Committees had not been formed in two test-checked Divisions (Pasighat and Ziro), while in the third Division (Itanagar), although a Project Level Committee had purportedly been formed, details of the Committee's meetings were not made available to audit.
- Evaluation of the completed projects for assessing the improvement in irrigation potential and utilization, agricultural production and cropping pattern had not been carried out.





ASSAM



LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●
Medium Irrigation Projects	●



10.3.1 Background

During 1996-2008, GoI sanctioned 10 major/ medium irrigation projects and 289 minor irrigation projects in Assam. The GoI and State Government releases towards these projects and reported expenditure during 1996-2008 are summarized below:

Table S8 - Profile of AIBP Projects in Assam

Category of projects	No. of Projects	GoI Releases (Rs. in crore)	State Government Contribution (Rs. in crore)	Reported Expenditure (Rs. in crore)
Major/Medium	10	44.68	34.63	63.35
Minor	289	140.98	21.16	145.78

Out of the above, a sample of two major/ medium projects – Champamati Irrigation Project and Modernisation of Jamuna Irrigation Project – and 25 minor projects were selected for detailed audit scrutiny.

10.3.2 Overall Status of Reported Completion of Projects

Out of the 10 major/ medium projects (which were all taken up under AIBP between 1996-97 and 2001-02), only five projects were completed by December 2009. Even the completed projects had time overruns of 2 to 9 years, and a total cost overrun of Rs. 485.44 crore. Details of the Major/Medium projects are given below:

Table S9 - Status of Major/Medium AIBP projects in Assam

Name of Irrigation Project	Year of Inclusion under AIBP	Expenditure as on March 2008 (Rs. in crore)	Expected date of completion	Time over-run before AIBP After AIBP (March 2008)	Cost over-run with reference to original Estimated Cost (Rs. in crore)
Dhansiri (Major)	1996-97	195.36	2009-10	30 years 9 years	179.53
Champamati (Major)	1996-97	72.94	2009-10	25 years 9 years	57.62
Bodikarai (Major)	1996-97	49.89	—	—	46.33
Integrated I.P. on Kollong Basin (Major)	1996-97	79.30	—	—	74.73
Pohumara (Medium)	1996-97	39.92	March 2008	16 years 9 years	34.95
Rupahi (Medium)	1996-97	7.56	—	20 years 9 years	5.73

Chapter - 10

State
Specific
Findings

Assam



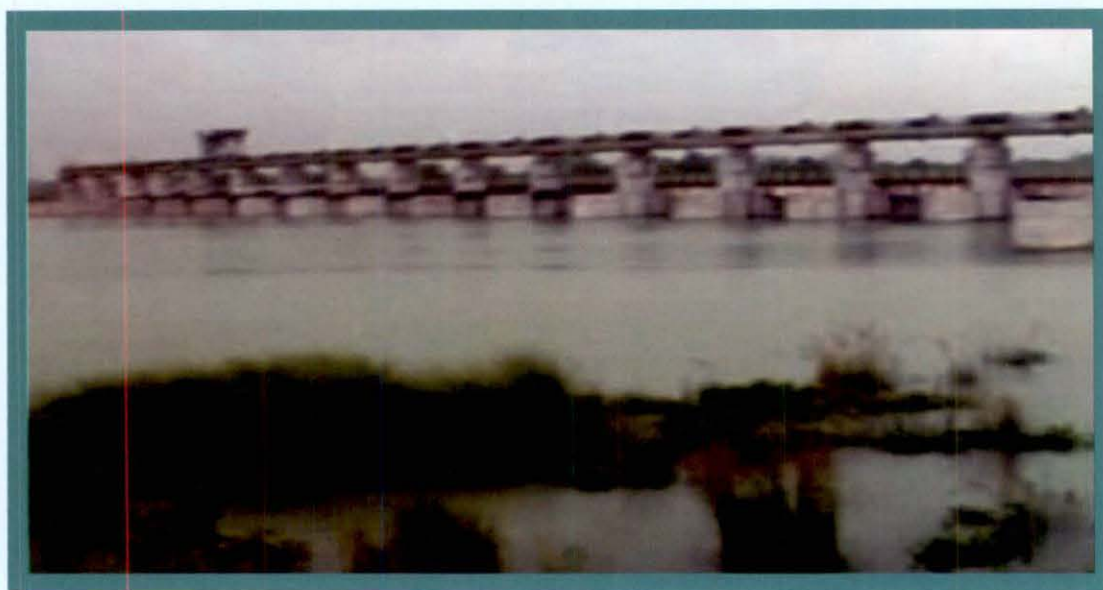
Name of Irrigation Project	Year of Inclusion under AIBP	Expenditure as on March 2008 (Rs. in crore)	Expected date of completion	Time over-run before AIBP After AIBP (March 2008)	Cost over-run with reference to original Estimated Cost (Rs. in crore)
Borolia (Medium)	1996-97	64.53	2008-09	25 years 9 years	57.76
Buridihing (Medium)	1996-97	17.42	2008-09	25 years 9 years	16.28
Waipur (Medium)	1996-97	14.50	—	22 years 9 years	12.51
Modernisation of Jamuna I.P. (Major)	2001-02	29.27	2008-09	7 years 2 years	NIL
Total		570.69			485.44

Failure of the State Government to contribute matching share and delayed release of CLA/Grant were the main reasons for delay in completion of projects ranging from 9 years to 39 years.

10.3.3 Status of Completion of Test-Checked Projects

As regards the two test-checked major/ medium projects, only 1 project was completed.

- The Champamati Irrigation Project had not been completed after 12 years of inclusion. The main reason was non-acquisition of land, with only 176 ha out of the required 478 ha having been acquired.
- In Modernisation of Jamuna Irrigation Project, there was a time overrun of 2 years in completion of the project, reportedly due to insufficient flow of funds and law and order problems in the State.



Champamati Irrigation Project (Head Work)

Chapter - 10

State
Specific
Findings

Assam



Modernisation of Jamuna Irrigation Project (Head Work)

As regards the 25 test-checked minor irrigation projects;

- Six projects were in the General Area; of these, none had been completed.
- 19 projects were under the Karbi Anglong Autonomous District Council (KAAC) area. Of these, 10 projects had been completed, with two projects delayed by one year. Cost overrun of Rs. 0.24 crore was incurred on 5 projects, by diversion of funds from other minor projects.

As regards creation of irrigation potential, the shortfall in respect of major/ medium and minor projects ranged from 7 to 77 per cent and from 20 to 41 per cent respectively. In respect of 1 Major (Champamati Irrigation Project) and 20 test-checked minor irrigation projects, no assessment of the IP utilized was carried out at any level.



Umphoo MI Scheme (Head Work)

Chapter - 10State
Specific
Findings**Assam**

Mortem MI Scheme (Head Work)

There was variation in the figures of percentage utilization of IP (ranging from 17 to 58 percent) as reported by the Irrigation Department and the Directorate of Economics and Statistics.

10.3.4 Planning and Approval of Projects

Audit scrutiny revealed that technical sanction for the two test-checked major/ medium projects was accorded in piecemeal fashion through 159 sanctions between November 1991 and August 2008, evidently to avoid sanction by a higher-level competent authority.

As regards minor irrigation projects,

- No DPRs were prepared in respect of any of the 131 projects under AIBP. Instead, “concept papers”, which contained a brief description of the project including location, index map, annual irrigation area, length of canal, targeted irrigation potential, cropping pattern, projected BCR and abstract of project cost, were prepared. However, these did not conform to the full requirements/ specifications of DPRs. Nevertheless, these projects were approved by the MOWR.
- The 143 minor irrigation projects in KAAC areas were approved by a separate Technical Advisory Committee (TAC). In respect of general areas, the State TAC was not formed till 2008-09, and 131 projects were approved by the MOWR without TAC approval.



10.3.5 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S10 - Irregularities in Financial Management of AIBP Projects in Assam

Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> Advance payments of Rs. 3.22 crore were made between March 2006 and March 2008 and irregularly charged to the projects, instead of the Miscellaneous Public Works Advances account head against individual officers for watching recovery and eventual adjustment within a month. Of this amount, only Rs. 0.29 crore was adjusted as of July 2008.
Short-release of funds	<ul style="list-style-type: none"> There were short-releases of Gol assistance of Rs. 15.96 crore and Rs. 18.83 crore by the State Government to the implementing agencies during 2003-08; and delays ranging from 37 to 376 days in release of funds.
Diversion of funds	<ul style="list-style-type: none"> Funds amounting to Rs. 0.31 crore allocated under AIBP were diverted for unrelated purposes.
Wasteful expenditure	<ul style="list-style-type: none"> One case of wasteful expenditure of Rs. 0.35 crore in the Champamati project, and another case of irregular expenditure of Rs. 0.36 crore without administrative approval on a minor irrigation project were noticed.
Poor collection of water rates	<ul style="list-style-type: none"> Although water rates were revised in March 2000 to meet the condition for reforming States (envisaged under the earlier guidelines), collection by the Irrigation Department against demands raised was very poor, with only Rs. 0.16 crore out of total demand of Rs. 13.90 crore being recovered during 2003-04 to 2007-08.

10.3.6 Monitoring and Evaluation

Audit scrutiny revealed that:

- The State Government did not have an independent monitoring mechanism for minor irrigation projects. Although a central monitoring cell in the Irrigation Department was reportedly monitoring such projects, no reports on monitoring were on record.
- A performance evaluation of AIBP projects by an external agency at the instance of MOSPI attribute the main reasons for delay in completion of projects in Assam to the failure of the state in contributing its matching share and delayed release of Gol assistance by the State Governments. These problems had, however not been resolved.
- During 2003-08, CWC conducted 26 inspections, covering 7 major / medium and only 1 minor projects. No project was visited every year during 2003-08, and only four projects were visited twice in any of the five years.

BIHAR



LEGEND	
Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●

Note: The Co-ordinates of Western Kosi Canal Project were not provided by the CWC.



10.4.1 Background

Under AIBP, three major, two medium and four minor irrigation projects had been taken up in Bihar. During 2003-08, GoI provided assistance of Rs. 164.82 crore and the State Government released Rs. 567.05 crore, against which expenditure of Rs. 707.87 crore was incurred.

Out of the above, two major projects – Western Kosi Canal Project (WKCP) and Sone Canal Modernisation Project (SCMP) – and four minor projects were selected for detailed audit scrutiny.

10.4.2 Overall Status of Reported Completion of Projects

Of the five major/medium irrigation projects,

- Two major projects, Western Kosi Canal Project and Sone Canal Modernisation Project, which were included in 1996-97, had not been completed as of March 2008 as the work of distributaries and water courses were yet to be completed, while the third major project – Durgawati Reservoir Project – was abandoned in 2006-07 for want of forest clearance.
- Two medium projects – Upper Kiul Reservoir Project (UKRP) and Orhni Reservoir Project (ORP) – were reported as complete in March 2007. However, 18 out of the 642 structures in UKRP were yet to be completed as of March 2007; 40 per cent of the water courses in ORP and 100 per cent of the water courses in UKRP were yet to be constructed.

All four minor irrigation projects, which were taken up in 2007-08, were ongoing as of March 2008

10.4.3 Status of Completion of Test-Checked Projects

10.4.3.1 Western Kosi Canal Project (WKCP)

This project is a part of the multi-purpose Kosi Project, and was included under AIBP in 1996-97. The estimated cost as of 1999 was Rs. 830.69 crore, with the 4th revised estimate of Rs. 1115.71 crore under process. The project was targeted for completion by March 2009.

Audit scrutiny of the records, however, revealed that:

- As of March 2008, only three out of four distributaries were completed. Slow acquisition of land was the main bottleneck for completion of distributaries, with possession of only 883 acres of land taken against the total land demand of 4195 acres as of March 2008.

Chapter - 10

State
Specific
Findings

Bihar



- Five out of the seven railway bridges falling across the WKC Main and Branch Canals were yet to be completed, due to lack of effective pursuance by the Irrigation Department with the Railways.
- De-siltation taken up in March 2008 was not completed as of September 2008, as only 7.45 lakh m³ of the targeted earthwork of 13.86 lakh m³ could be completed.
- As of February 2008, due to non-functional branch canals, non-completion of distributaries and slow progress of desiltation, irrigation potential of only 0.24 lakh ha could be utilized, as against the reported creation of 1.68 lakh ha of irrigation potential.



Siltation in upstream of Western Kosi Main Canal (WKMC) at RD 55 Km

Chapter - 10

State
Specific
Findings

Bihar



Breakage in Saharghat Branch Canal at tail end of WKMC



Siltation and vegetation in WKMC at RD 135.45 Km

Chapter - 10

State
Specific
Findings

Bihar



Vegetation and non-availability of water at Saharghat Branch Canal of WKMC

10.4.3.2 Sone Canal Modernisation Project (SCMP)

This project was included under AIBP in 2003. The revised cost of the project, as of March 2003, was estimated at Rs. 493.17 crore, with a stipulated completion date of March 2008.

Audit scrutiny, however, revealed that:

- As of March 2008, 12 per cent of the proposed distributaries and 100 per cent of the water courses were yet to be constructed.
- Construction of the Western Project Link Canal (WPLC) could not be completed, due to heavy seepage from the Western main canal and non-clearance from the Road Construction Department. As a result, IP of 1.69 lakh ha. reportedly created under AIBP could not be utilised.
- The banks of the distributaries and sub-distributaries were regularly damaged by frequent movement of animals of villagers and growth of vegetation, as they were not lined.

Chapter - 10

State
Specific
Findings

Bihar



Incomplete WPLC under SCMP

10.4.3.3 Minor Irrigation Projects

In respect of the test-checked minor irrigation projects, audit scrutiny revealed that neither Preliminary Survey Reports nor DPRs had been prepared for any of the projects.

Chapter - 10

State
Specific
Findings

Bihar



Incomplete spillway of Nayaki Reservoir Scheme



Damaged embankment of Gerua Reservoir Scheme



10.4.4 Planning and Approval of Projects

Audit scrutiny of the projects revealed the following:

- The BC Ratio of WKCP was calculated at 2.794 after adopting the kharif crop production, which was unrealistic as the command area was completely flood prone, making the kharif crop uncertain.
- The BC Ratio of SCMP was not calculated, and the 2nd revised estimate was not approved by CWC due to this lacunae.
- In respect of test-checked MI projects, the BC Ratio was calculated on the basis of assumed crop production and the basic records on the basis of which it was calculated were not available with the department.

10.4.5 Non-creation & Utilisation of targeted Irrigation Potential

Audit scrutiny revealed that:

- During 2003-08, only 74 per cent of the targeted irrigation potential was reportedly created under AIBP, against which reported utilization was only 51 per cent.
- The figures of created and utilized irrigation potential provided to audit did not have supporting basic records, and could not be vouchsafed in audit.

10.4.6 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S11 - Irregularities in Financial Management of AIBP Projects in Bihar

Nature of Irregularity	Details
Irregular expenditure	<ul style="list-style-type: none"> ■ In Sone Canal Modernisation Project (SCMP), Rs. 72.20 crore was spent on metalling of service road, which was wrongly included under the Sub-head 'Earthwork' in the estimates. ■ In Western Kosi Project, an expenditure of Rs 7.35 crore was incurred by Western Kosi Canal Division on unapproved works.

10.4.7 Monitoring and Evaluation

Audit scrutiny revealed that:

- No State Level and Project Level monitoring committees were formed, while the monitoring cell in the Secretariat merely compiled information furnished by the Divisions, without any system for verifying the authenticity of information.
- The Chief Engineer, Dehri reportedly conducted 47 field inspections during 2003-08; however, inspection notes for only four visits were on record.

CHHATTISGARH



LEGEND

State Capital	
State Boundary	
District Boundary	
Major Irrigation Projects	
Medium Irrigation Projects	

Note: The Co-ordinates of Hasdeo Bango Project, Mahanadi Reservoir Project and Kosarteda Project were not provided by the CWC.



10.5.1 Background

During 1996-2008, GoI sanctioned seven major/ medium and 120 minor irrigation projects in Chhattisgarh, and released 312.60 crore and Rs. 70.27 crore, respectively, towards these projects. Of these, a sample of three major/ medium projects (Hasdeo Bango Phase- III, Mahanadi Reservoir Project and Kosarteda Project) and 12 minor irrigation projects was selected for detailed audit scrutiny.

10.5.2 Overall Status of Reported Completion of Projects

Of the seven major & medium projects taken up under AIBP, two major projects (Hasdeo Bango Project Phase- III and Jonk Diversion) and two medium projects (Shivnath Diversion Project and Barni Project) had been completed as of March 2008. Of the 120 minor irrigation projects, which were sanctioned during 2006-08, only two projects were completed as of March 2008.

10.5.3 Status of Completion of Test-Checked Projects

Audit scrutiny revealed that:

- The State Government made adequate allotment of funds for completion of the projects. Against the central releases of Rs. 299.47 crore for the test-checked major/ medium projects, the State Government provided funding of Rs. 934.10 crore. Similarly in respect of the 120 minor irrigation projects, against the GoI assistance of Rs. 70.27 crore, the State Government allocated Rs. 191.63 crore.
- Of the test-checked major/ medium projects, only one major project (Hasdeo Bango Phase-III Project) had been completed. In the Kosarteda Project (Ongoing project), against the requirement of 237.33 ha of land, 34.4 ha was still pending for acquisition.
- Of the test-checked 12 minor irrigation projects, two projects (Kokia Diversion Scheme and Pandoli Anicut Scheme) had been completed. In six test-checked minor irrigation schemes²⁰, the main reason for non-completion and non-creation of irrigation potential was non-acquisition of land.

²⁰ Malanger Scheme, Muskuti Diversion, Kokia Diversion/ Renovation, Chendra Tank, Pithama Tank and Jharan Tank

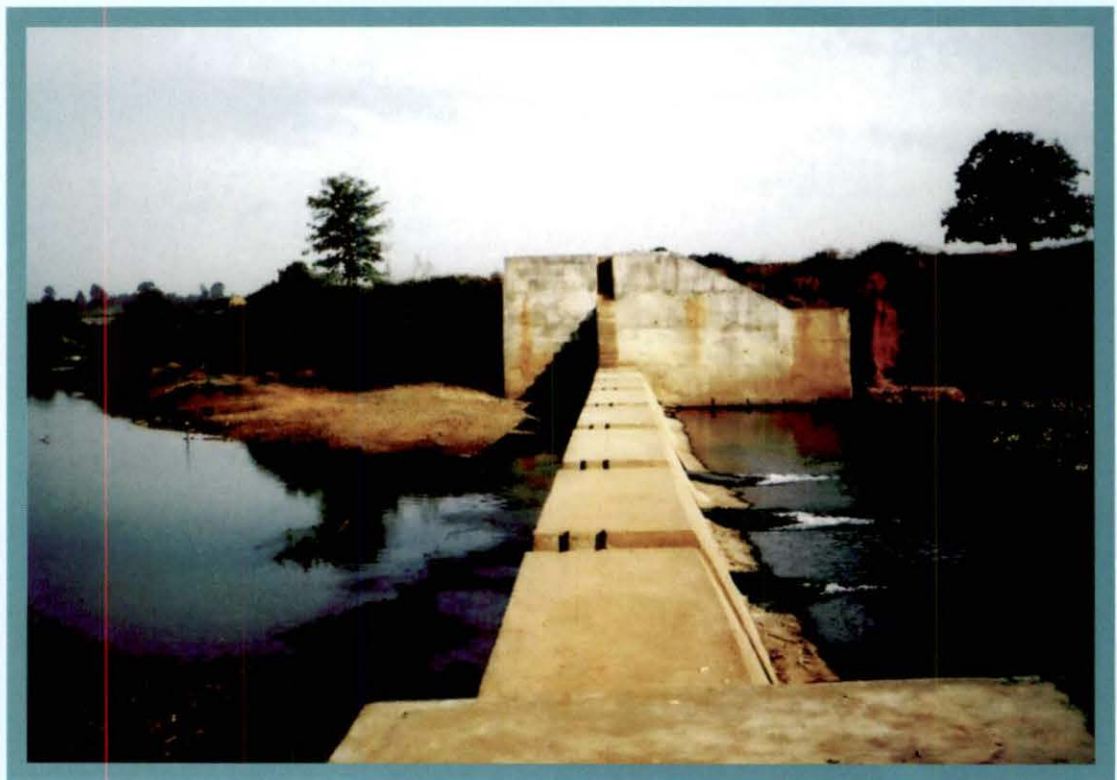
Chapter - 10

State
Specific
Findings

Chhattisgarh



Roopur Tank Minor Irrigation Scheme



Pandoli Anicut Minor Irrigation Scheme

10.5.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S12 - Irregularities in Financial Management of AIBP Projects in Chhattisgarh

Nature of Irregularity	Details
Undue benefits to contractors	In Hasdeo Bango Project : <ul style="list-style-type: none"> ■ During excavation of the canal, the contractor over excavated a few reaches and again filled the gaps and pockets, for which he was paid Rs.11.38 lakh. ■ Royalty amounting to Rs.22.88 lakh was not deducted from two contractors for payments of use of metal and sand in the cement concrete lining work in Kurda distributary.
Wasteful expenditure	<ul style="list-style-type: none"> ■ In Hasdeo Bango Project the work of erection of gate and cross regulator amounting to Rs.14 lakh was executed through a contractor during 2003-04. However, nine months after of issue of completion certificate, the department declared that the system had failed. Instead of repairing the system through the defaulter, the department again spent Rs.10.94 lakh through another contractor.

10.5.5 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.



GUJARAT



LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●
Medium Irrigation Projects	●

Note: The Co-ordinates of Sardar Sarovar Project, Mukteshwar Project and Bhadar-II Project were not provided by CWC.



10.6.1 Background

During 1996-2008, GoI sanctioned 15 major and medium projects in Gujarat. Of these, the largest project is the Sardar Sarovar Project (SSP), which was included under AIBP in 1996-97 at an originally approved cost of Rs. 6406 crore for completion by 2000-01. The components under AIBP are the Narmada Main Canal (Unit-II) and the distribution system upto minor level (Group-IV). As regards the other 14 major/ medium projects, a provision of Rs. 105.87 crore was made, against which GoI released Rs. 76.67 crore; the State Government made a provision of Rs. 141.54 crore for these projects.

10.6.2 Sardar Sarovar Project (SSP)

SSP is being executed by the Sardar Sarovar Narmada Nigam Limited (SSNNL). Against the original cost of Rs. 6406 crore, the latest cost estimate proposed by the State Government in July 2007 was Rs. 35,046 crore; this estimate had not yet been approved. Till March 2008, the total investment in SSP was Rs. 26,353 crore, of which GoI assistance was Rs. 5,140 crore. Despite non-approval of the revised estimate, GoI released funds of Rs. 837.62 crore during 2007-08. The main audit findings are as follows:

- While the originally projected BC Ratio was 2.0, the State Government had not revised the BCR, while up scaling the costs and the revised project estimates of Rs. 35,046 crore do not mention a revised BCR; the continued economic viability of SSP is thus not verifiable.
- The project is still ongoing, with a revised completion date of 2010-11. As of March 2008, the main canal was 100 per cent complete and the branch canals 60 per cent complete, but the completion of distributaries, minors and sub-minors ranged from 16 to 28 per cent.
- During 2003-08, despite expenditure of Rs. 4676 crore, the construction of earthwork, lining and structures ranged between 8 to 65 per cent of the targets.
- While according investment clearance to SSP, the Planning Commission had stipulated a vertically integrated approach for the implementation schedule for the canal network, whereby a segment of the canal network, taken from the head, was to be completed in all respects so as to make irrigation water available to the outlet in that segment for the designed potential. Contrarily, priority was accorded to construction of branch canals, but distributaries, minors and sub-minors were not developed, leading to non-creation of the targeted IP, as summarized below:

Chapter - 10State
Specific
Findings**Gujarat**

- ▲ While seven branch canals were constructed under Phases IIA and IIB between October 2001 and May 2008, construction of their distributaries had not been taken up as of December 2008.
- ▲ Construction of distributaries in blocks 9A4 and 9A5 was completed in June 2002; however, only 100 km of minors out of a total of 200 km of minors of these distributaries were completed. Even of these 100 km, water could flow only in 4.70 km due to incomplete stretches. As regards sub-minors for these blocks, 422 km of sub-minors were constructed as of June 2008, against the envisaged construction of 719 km by July 2005. Even of these 422 km of sub-minors, water could flow only in 2 km.
- ▲ While the canal siphon of the Morbi branch canal at the Viramgam –Rajkot railway line crossing had been completed in May 2005, the contract for construction of the branch canal had not been awarded till January 2009.

Further, audit scrutiny revealed diversion of GoI assistance of Rs.1833 crore:

- GoI released Rs. 675.20 crore for extending irrigation benefits to drought prone area (DPA). Audit scrutiny revealed that the irrigation potential proposed to be developed under DPA was of seven already constructed branch canals (Narsinghpura, Maliya, Vallabhipur, Viramgam I&II, Kharaghoda and Jijanuwada) and three under construction branch canals (Goriya, Rajpura and Amarapura). Sardar Sarovar Narmada Nigam Limited (SSNNL) provided utilization certificates to GoI certifying that the funds provided under DPA had already been spent. However, the branch canals covered under DPA were already constructed/were under construction when the DPA component was introduced. The branch canals which were under construction were still not complete and no expenditure had been incurred on distributaries or other downstream networks. This implied that the funds provided under DPA were used by the Company in the works other than those covered under DPA and SSNNL gave incorrect UCs to GoI.
- Out of the CLA of Rs. 1898 crore received during 2002-05, SSNNL could not utilize CLA of Rs. 1103 crore. Further, there was a shortfall in expenditure of Rs. 82 crore as on 31.03.2002 corresponding to CLA of Rs. 55 crore. The total CLA unutilized till 2004-05 was Rs 1158 crore.

During the period 2003-04 to 2004-05, against the actual expenditure of Rs. 1702 crore incurred by the SSNNL, the State Government reported an expenditure of Rs. 2987 crore to GoI. Thus, the State Government overstated expenditure incurred under AIBP.



10.6.3 Overall Status of Reported Completion of Projects

Ten of the 14 major/medium projects (excluding SSP) under AIBP were completed as of March 2008. In respect of five projects, no GoI assistance was released during 2004-08. While the reported fund utilization on the 14 projects during 2003-08 was 34 per cent of the balance estimated cost, only three per cent of the balance IP was created.

10.6.4 Status of Completion of Test-Checked Projects

Of the two test-checked medium projects;

- Bhadar-II Project was incomplete, due to thin release of funds, delay in acquisition of land for canals/ distributaries and rehabilitation and resettlement of a village being submerged. There was a 95 per cent shortfall in creation of IP. Also, the BC Ratio was deficiently calculated, by not including the cost of on-farm development, and had not been revised to take into consideration the increase in estimated cost of Rs. 65.46 crore.
- Mukteshwar Project was completed in December 2005 with a cost overrun of Rs. 30.43 crore and time overrun of four years attributed to delay in acquisition of land, protests by farmers over land acquisition, delay in preparing designs, and inadequate budget provisions. While, there was a marginal shortfall in creation of IP of four per cent, vis-à-vis the targeted IP, only 14 per cent of the IP created could be utilized.



Bhadar-II Project- Incomplete canal

Chapter - 10State
Specific
Findings**Gujarat**

Mukteshwar Project-Dry canal with Weeds and Siltation

10.6.5 Financial Management

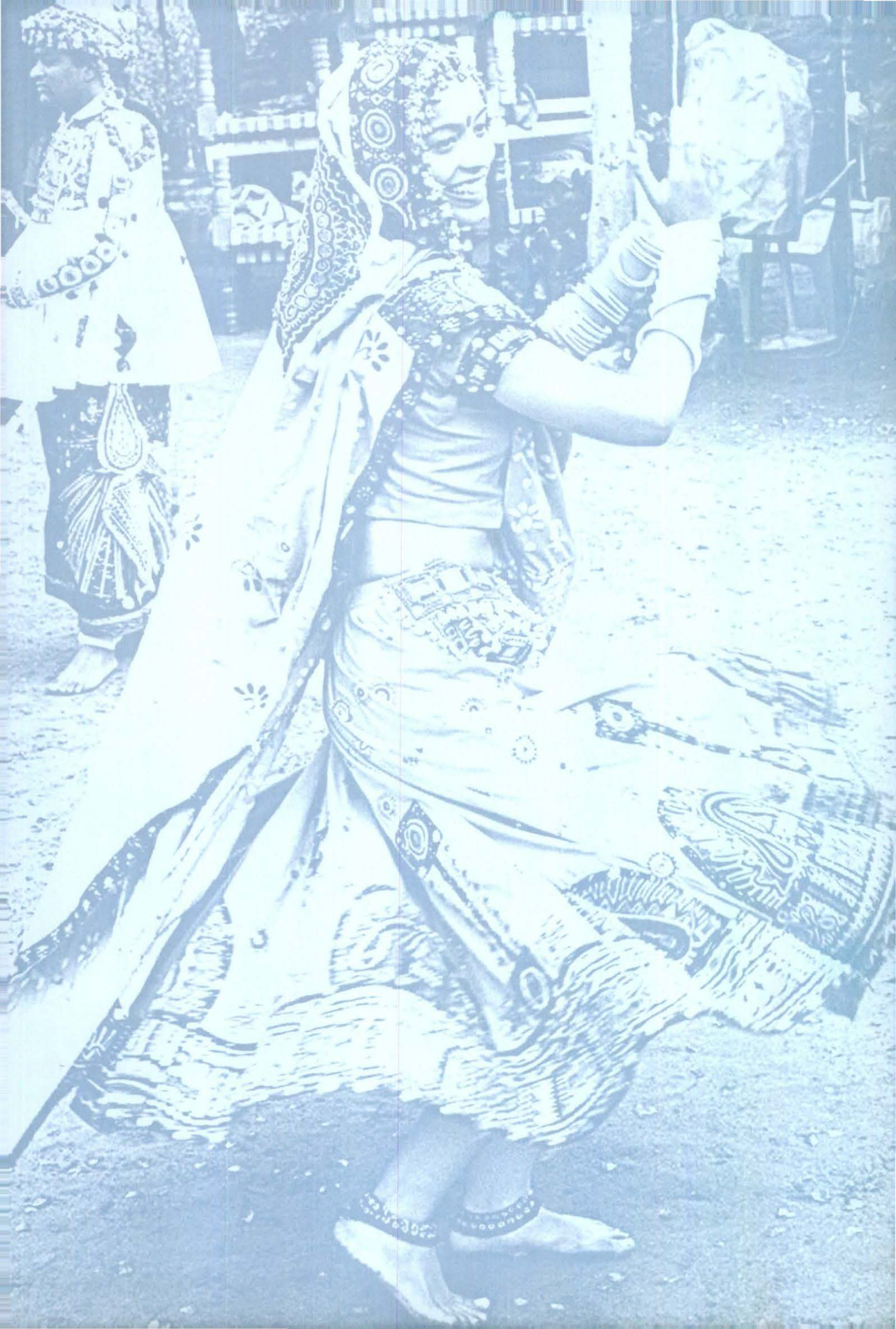
Audit scrutiny revealed the following irregularities in financial management:

Table S13 - Irregularities in Financial Management of AIBP Projects in Gujarat

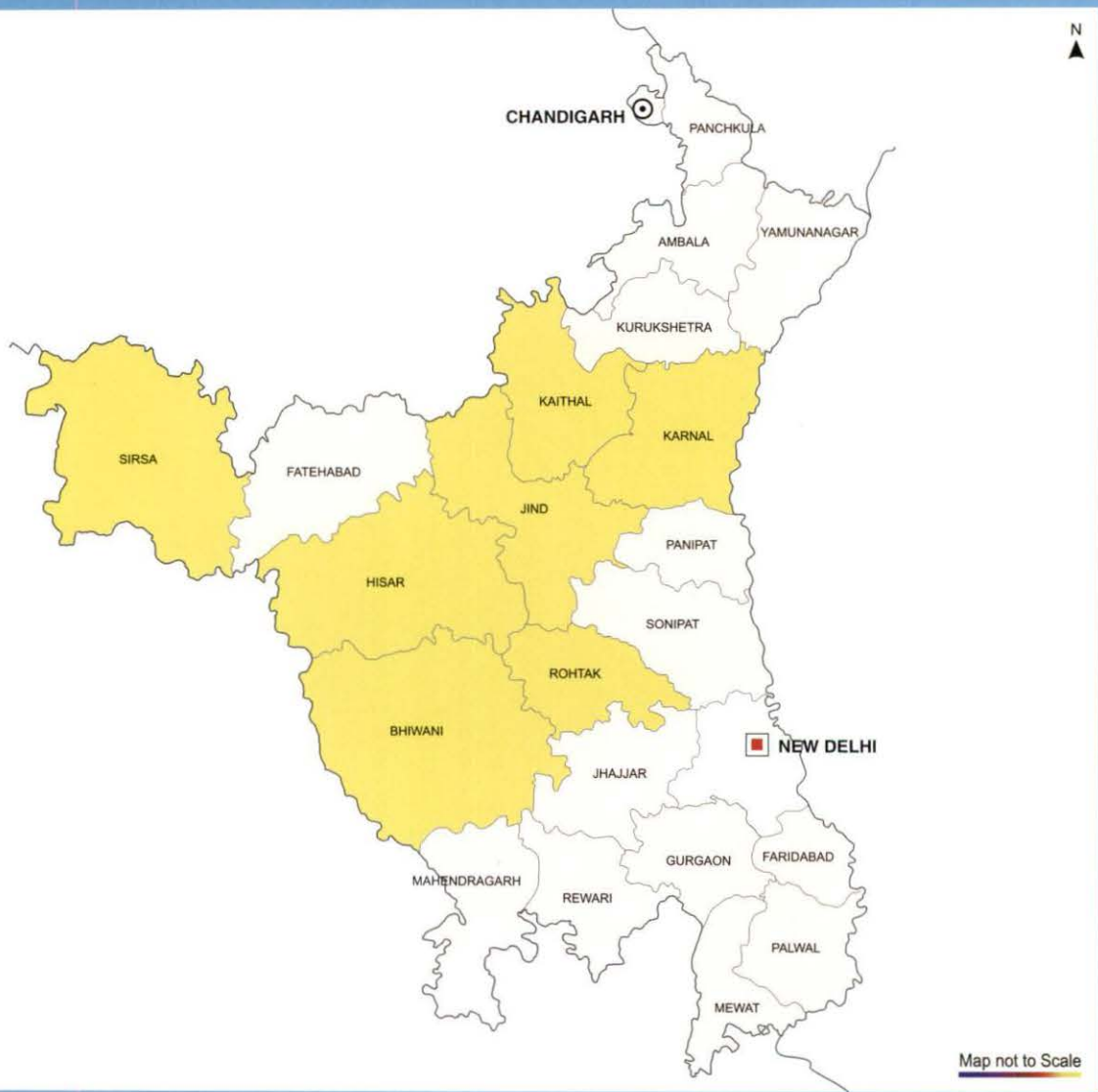
Nature of Irregularity	Details
No allocations of Gol funds	<ul style="list-style-type: none"> During 2003-04, against allocation of Rs. 4.19 crore for major/medium projects (other than SSP), only Rs. 0.86 crore was released by Gol, and no allocations were made during 2004-08.
Irregularities in UCs	<ul style="list-style-type: none"> Instead of sending year-wise UCs, the State Government sent consolidated UCs in July 2004 for Rs. 10.86 crore for 1996-2004 for the Mukteshwar Project and Rs. 0.87 crore for Bhadar-II for 2003-04, without getting UCs from the project divisions; the authenticity of these consolidated UCs could, thus, not be vouchsafed. Further, UCs for Rs. 27.22 crore for 2001-04 for three ongoing projects were sent only in July 2004, while UCs for nine projects, completed by March 2003 for Gol assistance of Rs. 37.73 crore, had not been sent to Gol as of March 2008.

10.6.6 Monitoring and Evaluation

The State Level Committee, which was formed only in May 2006, had not met or visited the projects during 2006-08. As regards SSP, the Board of Directors of SSNNL had constituted a project committee for monitoring progress in August 2007; except for approving contracts, this committee had not done any meaningful monitoring.



HARYANA



LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Country Capital	■
Coverage of Balance Works of WRCP	■



10.7.1 Background

The Water Resources Consolidation Project (WRCP), intended to achieve an increase in surface water supplies by reducing seepage losses and increasing the carrying capacities of major canals, received assistance of Rs 44.50 crore under AIBP during 1996-98 and was declared as completed in 2001-02. 'Balance Works of WRCP', like repair & rehabilitation of canals, bank strengthening, restoration/strengthening of structures like bridges and ghats etc, were approved for funding under AIBP in 2002. The project, which had an estimated cost of 135.74 crore, received GoI assistance of 46.05 crore. Expenditure of Rs 176.65 crore was incurred on the project, which was declared as completed in 2006-07.

10.7.2 Overall Status of Reported Completion of Project

- The project was reportedly completed in 2006-07. However, against the 104 distinct works to be completed by March 2007, 31 works were not taken up. Further, the shortage in completion of various components of work – earthwork, lining, structures, cement concrete etc. – ranged from 31 to 70 per cent, despite expenditure of Rs. 135.47 crore out of the projected cost on these components of Rs. 147.87 crore.
- Against the targeted IP of 44,000 ha, IP of only 24,240 ha was reportedly created up to March 2007. Even this figure was incorrect and unreliable, as 19 out of the 28 divisions audited intimated that no IP was created by the works executed by them under the project, as these works were in the nature of rehabilitation /repair of already existing infrastructure.
- The Engineer-in-Charge, Irrigation, Haryana replied (October 2008) that the IP targeted and created were calculated in a theoretical manner and did not depend upon the expenditure incurred on works; the response is not tenable as the targeted IP was to be calculated as per the AIBP guidelines, and the potential created was to be taken on actual basis. Further, the working papers for calculation of IP were not produced to audit.

Chapter - 10State
Specific
Findings**Haryana****10.7.3 Financial Management**

Audit scrutiny revealed the following irregularities in financial management:

Table S14 - Irregularities in Financial Management of AIBP Projects in Haryana

Nature of Irregularity	Details
Diversion of funds	<ul style="list-style-type: none"> ■ Executive Engineer, Construction Division No.17, Karnal irregularly diverted funds amounting to Rs. 10.51 crore for AIBP works received in 2006-07, for payment of arbitration awards. ■ Test check of records of Narwana Water Services Division Narwana revealed (September 2008) that Dhamtan Distributary was to be linked (2004-05) with Kalwan Feeder. Instead, the tail of the Dhamtan Distributary had been linked directly to Bhakra Main Line (BML) by constructing a link channel off taking at RD 538021-L of BML after incurring an expenditure of Rs. 4.83 crore; this was not an approved AIBP component.
Irregular expenditure	<ul style="list-style-type: none"> ■ In 16 cases of six test checked irrigation circles, excess expenditure of Rs. 7.43 crore was incurred, without obtaining the sanction of competent authority. ■ Test check of records of 8 divisions revealed that these divisions used AIBP funds amounting to Rs 5.01 crore for executing works that were not identified under the approved project.

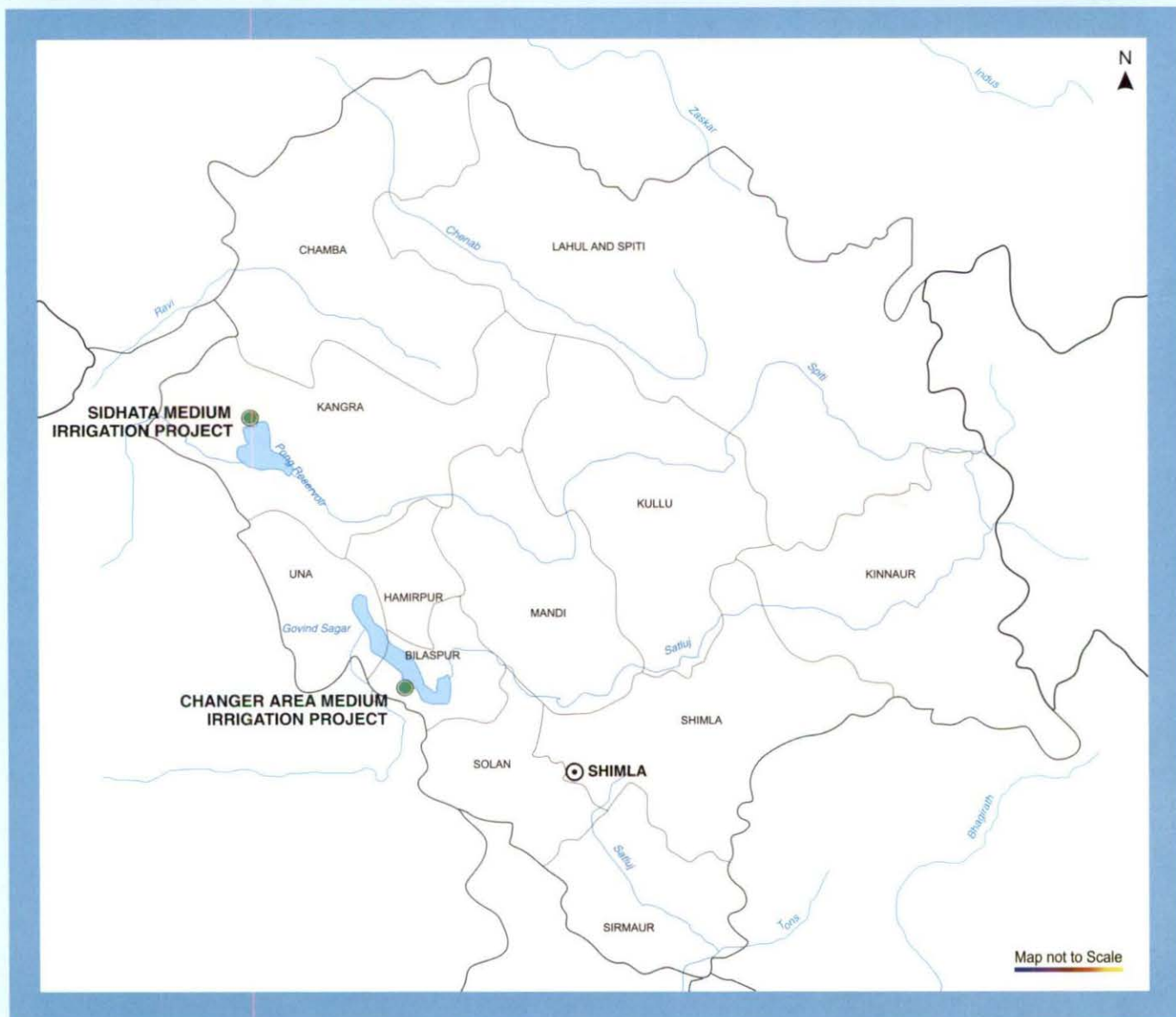
10.7.4 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.





HIMACHAL PRADESH



LEGEND	
Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Medium Irrigation Projects	●



10.8.1 Background

During 1996-2008, GoI sanctioned one major, two medium, and 278 minor irrigation projects in Himachal Pradesh under AIBP. During 2003-08, GoI provided assistance of Rs. 213.69 crore, while the State contributed Rs. 29.88 crore. The entire available funds of Rs. 243.57 crore were shown as expended as of March 2008.

Of these, two medium Projects namely, Sidhata Medium irrigation Project at Jawali and Changer Area Medium Irrigation Project at Bassi, and 25 MI Projects were selected for detailed audit scrutiny.

10.8.2 Overall Status of Reported Completion of Projects

Despite being taken up during 1996-2000, none of the major and medium projects were completed. Of the 278 minor irrigation projects:

- All 60 minor irrigation projects sanctioned during 1999-2001 were reported as complete.
- 73 out of 102 projects sanctioned during 2005-06 were reported as completed.
- None of the remaining 116 projects, which were sanctioned during 2007-08, were completed as of March 2008.

10.8.3 Status of Completion of Test-Checked Projects

10.8.3.1 Sidhata Medium Irrigation Project

This project, which was approved in February 2000 at a cost of Rs. 33.62 crore for completion by March 2005, had not been completed as of September 2008. Audit scrutiny revealed that:

- Only 2.04 km of the main canal had been completed, while several other components of the main canal e.g. pattra cutting over a length of 0.96 km, aquaducts over a length of 0.11 km in various isolated reaches, RCC box over a length of 4.12 km, and tunnel work over a length of 1.31 km remained to be executed.
- Out of six lift irrigation schemes, four LIS (Harian, Basantpur, Bagoor and Beh Maskar) had not been completed/commissioned, while one LIS (Kaldoon) had been completed, but no irrigation was provided.
- As against the targeted irrigation potential of 3150 ha, only 185 ha of irrigation potential had been created.

Chapter - 10

State
Specific
Findings

**Himachal
Pradesh**



The main reasons attributed for delay in completion were slow pace of execution of work, and railway land falling within the alignment of canal, the case for which was initiated with the Railways only in November 2004.

Sidhata Medium Irrigation Project at Jawali as on September 2008



Pattra Cutting Work in Progress

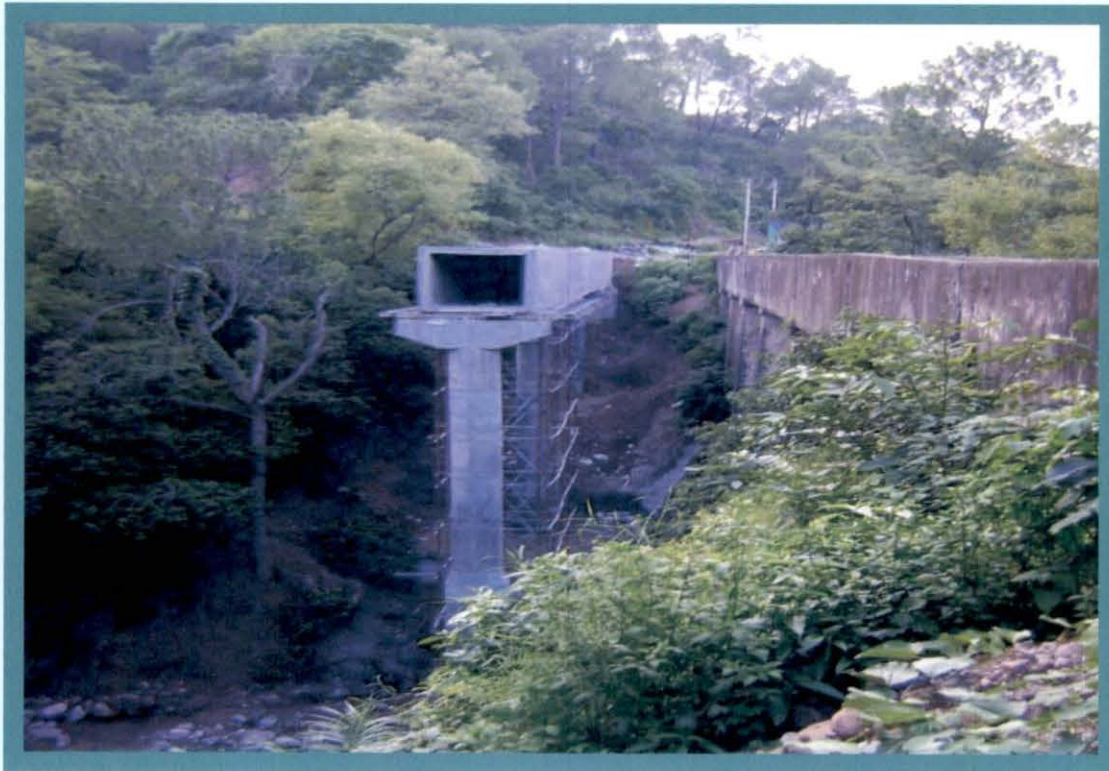


Work held up due to railway land falling within canal alignment

Chapter - 10

State
Specific
Findings

**Himachal
Pradesh**



Work in progress on aquaduct (RD 7.503 to 7.592 km)



RCC box not done

Chapter - 10

State
Specific
Findings

**Himachal
Pradesh**



Pump house of LIS Bagroor under construction



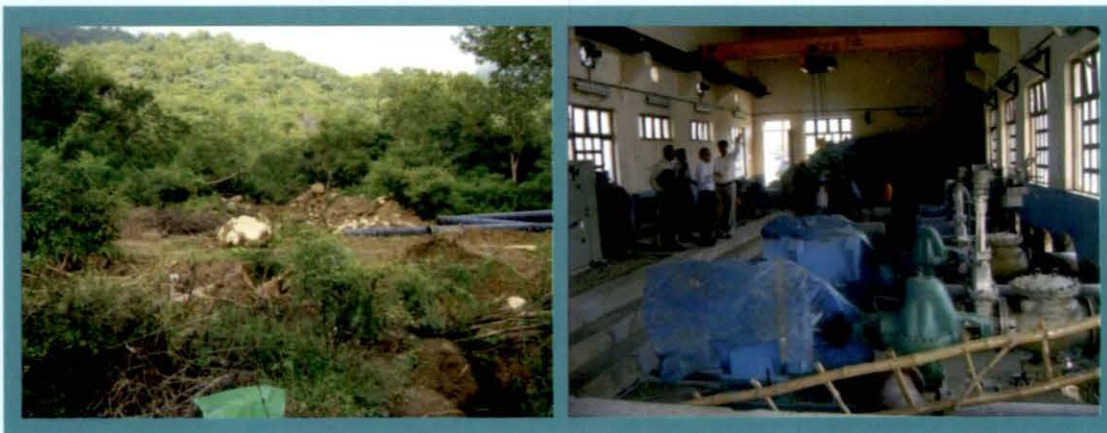
Non-laying of pipes of LIS Beh Maskar



10.8.3.2 Changer Area Medium Irrigation Project

This project, which was approved in September 2000 at a cost of Rs. 28.37 crore for completion by March 2006, was still incomplete as of October 2008. Audit scrutiny revealed that:

- Out of the six zones of the project, works in only two zones had been completed, while works in the other zones had only been partly executed.
- Against the targeted irrigation potential of 2350 ha, only 176 ha of irrigation potential had been created as of March 2008.
- The reasons attributed for the time overrun were slow pace of execution of works, lack of effective planning of execution of different components, and non-obtaining of permission to transfer forest land for use for non-forestry purpose, for which the case was initiated with the forest department only in October 2008.



Work not executed due to forest land in Changer Area Medium Lift Irrigation Project at Bassi

Pumping machinery for Zone 2A not functioning due to lack of power supply

10.8.3.3 Minor Irrigation Projects

Audit scrutiny revealed that six minor irrigation projects (LIS to Village Majhiar Sera and Pakhrol Phase II, LIS-cum-FIS Kharahal, FIS Bakhnoj, LIS Kotla Ban, FIS Kardwan, and FIS Gojra Khakhnal, had not been completed, mainly due to:

- Non-starting of work/ slow pace of work;
- Delay in according of administrative approval and expenditure sanction, and finalization of tenders;
- Work of field channels and other components being stopped by villagers, due to failure to obtain their written consent in advance.

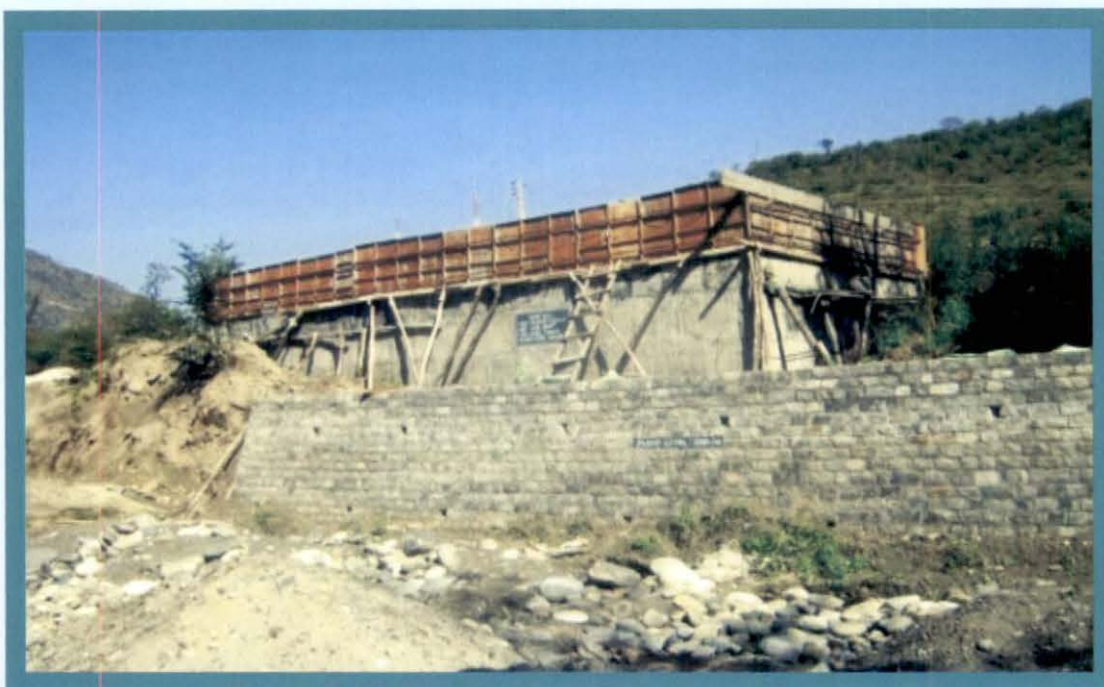
Chapter - 10

State
Specific
Findings

**Himachal
Pradesh**



Further, of these six projects, three projects (LIS Kotla Ban, FIS Kardwan and FIS Gojra Khakhnal) were incorrectly declared as completed, even though several major components were yet to be completed. In one case (FIS Kardwan), the limited irrigation potential created was only utilized in the Rabi cropping season, and no irrigation was provided in the Kharif cropping season.



Incomplete Sump well of LIS-cum-FIS Kharahal



Work at FIS Kakhnoj stopped due to objections of villagers



10.8.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S15 - Irregularities in Financial Management of AIBP Projects in Himachal Pradesh

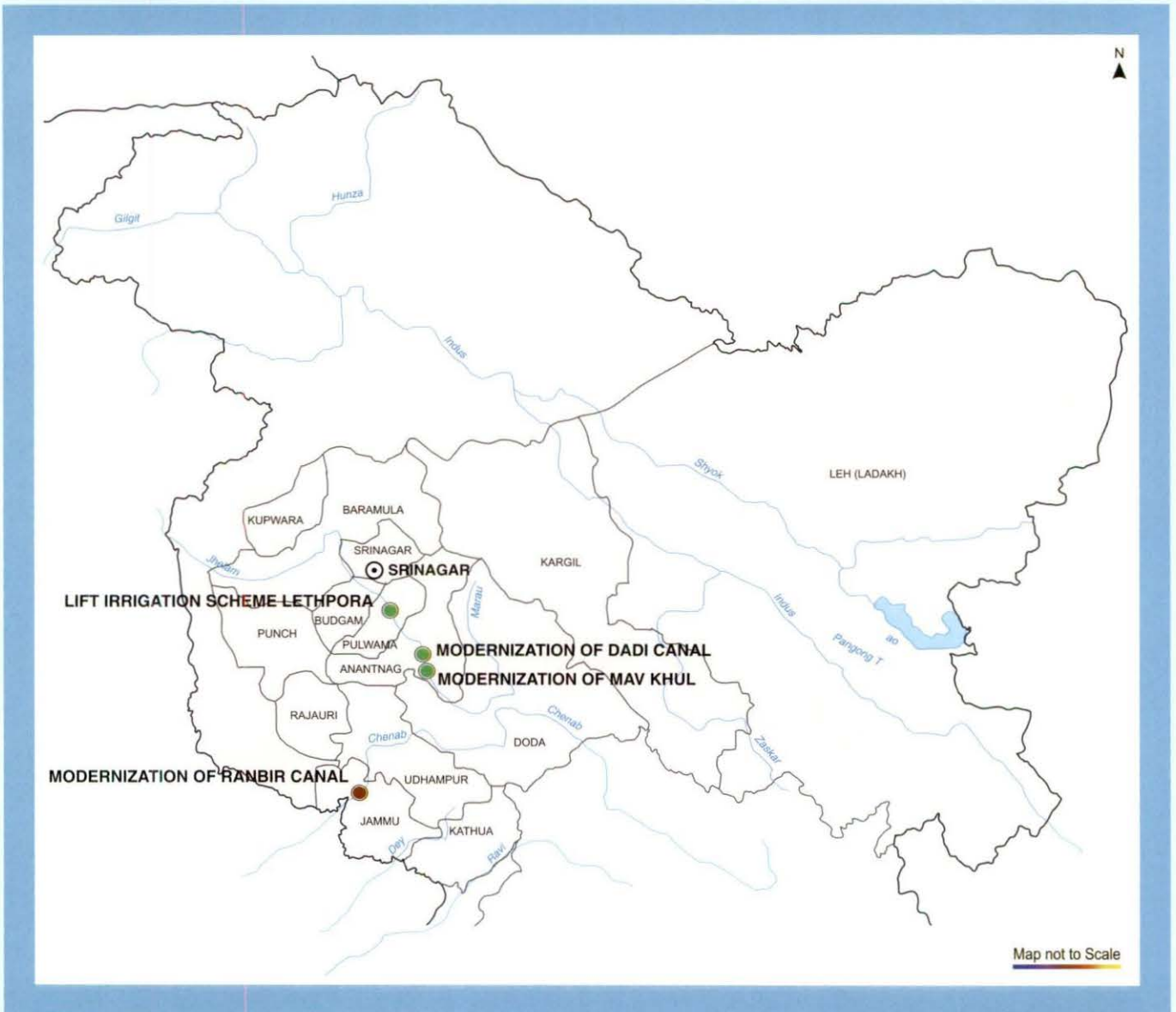
Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> In two medium projects (Sidhata Medium Irrigation Project and Changer Area Medium Irrigation Project) and one minor irrigation project (LIS cum FIS Sarwari River to Kharhal), compensation of Rs. 1.03 crore due on account of non-completion of work within the stipulated time was not recovered from the contractors.
Injudicious payment	<ul style="list-style-type: none"> In Sidhata Medium Irrigation Project, in one of the implementing Divisions, instead of charging the advance payments of Rs. 2.27 crore to Miscellaneous Works Advances, these were charged to the final head of account of the Project.
Irregular utilization of budget	<ul style="list-style-type: none"> Funds amounting to Rs. 0.79 crore released through Letter of Credit for two MI projects (FIS Gojra Khakhnal & LIS cum FIS Sarwari River to Kharhal) were debited to final heads of accounts of the works, without actual execution, and the entire amount was kept under the deposits head.
Diversion of funds	<ul style="list-style-type: none"> In 4 divisions, CLA/grant of Rs. 39.79 lakh for the execution of 5 AIBP irrigation schemes (1 medium and 4 minor) were utilized between March 2006 and March 2008 on other schemes.

10.8.5 Monitoring and Evaluation

- No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.
- As per the instructions of the Engineer-in-Chief, the C.Es, S.Es and E.Es were required to conduct 4, 6 and 12 inspections of works in a year. However, during audit scrutiny of the test-checked projects only 6 inspection notes were made available to Audit. The authenticity of reported inspections could, thus, not be verified.



JAMMU & KASHMIR



LEGEND	
Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●
Medium Irrigation Projects	●

Note: The Co-ordinates of Modernization of Ranbir Canal, Modernization of Dadi Canal, Modernization of Mav Khul and Lift Irrigation Scheme Lethpora were not provided by the CWC.



10.9.1 Background

During the period from 1996-97 to 2008-09 (August 2009), GoI approved 14 major/ medium and 391 minor irrigation projects under AIBP and released Rs. 229.06 crore of assistance during 2002-08. Of these, one major, three medium and 19 minor irrigation projects were selected for detailed audit scrutiny.

10.9.2 Overall Status of Reported Completion of Projects

Of the 14 major/ medium projects, 4 projects were declared as completed, while 47 out of the 391 minor irrigation schemes were reported as completed (of which only 7 schemes were completed within the stipulated time).

Overall, 86,094 ha of IP was created against the envisaged IP of 198,659 ha. In respect of the 51 completed schemes, IP of only 28,237 ha was created against the envisaged potential of 34,912 ha.

10.9.3 Status of Completion of Test-Checked Projects

Audit scrutiny revealed that:

- Out of the 23 test-checked schemes, despite expenditure of Rs. 119.45 crore during 1996-2008, only three schemes (LIS Lethpora, Improvement to Wani Aram Canal, and Remodelling of Basantpur Canal) were declared as completed. Even out of these three schemes reported as completed, completion certificate for the Remodelling of Basantpur Canal minor irrigation project was wrongly issued, since remodeling of 2.10 km out of 6.30 km of the main canal was not completed as of October 2008.
- Out of the four test-checked major/ medium schemes, two schemes (Modernisation of Ranbir Canal and Modernisation of Dadi Canal) were not completed in time, due to slow pace of execution, execution of additional works, and late release of funds. This resulted in cost overrun of Rs. 18.77 crore, and time overrun of 6 months to 5 years.
- One minor irrigation project, Lift Irrigation Scheme, Saidgarh, was abandoned / suspended after expenditure of Rs. 0.66 crore, as the available water source and the additional water source identified were not sufficient for irrigation.
- Against the envisaged irrigation potential of 43,938 ha for the 23 test-checked projects, only 17,204 ha of potential was created; no potential had been created in 8 projects, despite incurring of expenditure. In respect of the two completed projects, the IP created was only 740 ha against the envisaged potential of 3,632 ha.

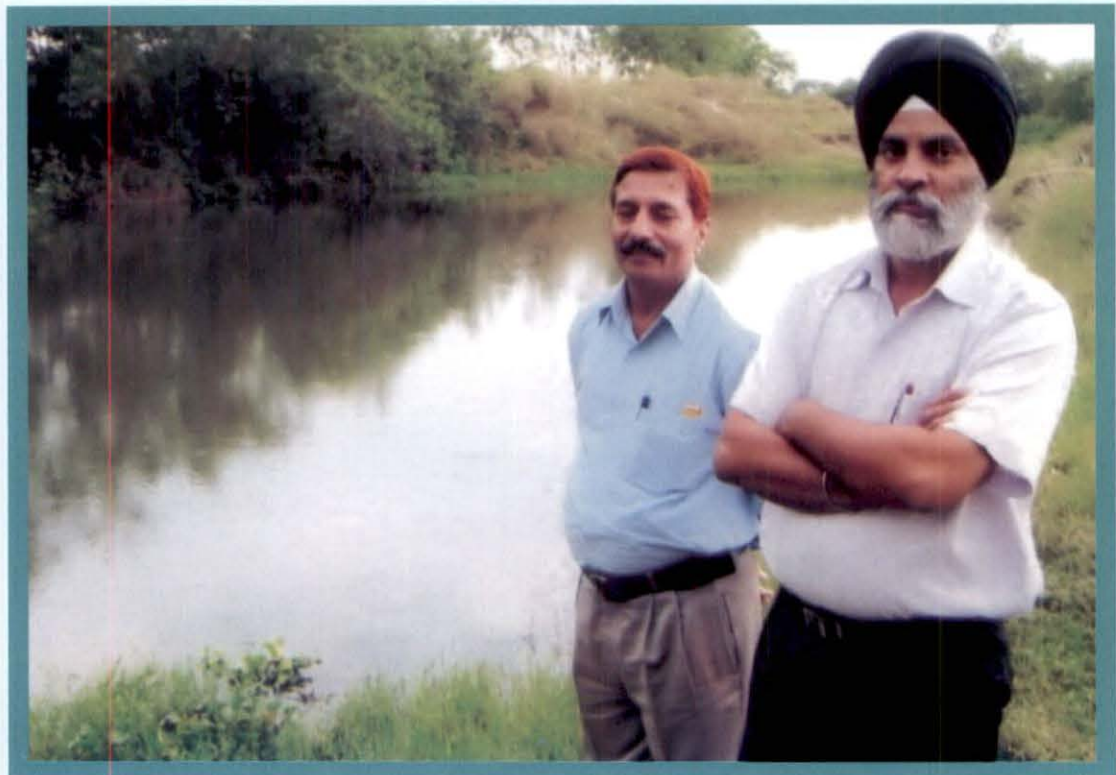
Chapter - 10

State
Specific
Findings

**Jammu &
Kashmir**



Unlined Portion of Ranbir Canal



Headworks of Dadi Canal

Chapter - 10

State
Specific
Findings

**Jammu &
Kashmir**



Abandoned well at LIS Saidgarh



Unlined Portion of Basantpur Canal

Chapter - 10

State
Specific
FindingsJammu &
Kashmir

10.9.4 Planning and Approval of Projects

Audit scrutiny revealed the following irregularities in selection/ prioritisation of schemes:

- Rs. 1.25 crore of AIBP funding was irregularly released during 2008-09 to one scheme – Construction of Unis Ujroo Khul – which was being financed from another scheme, the Rashtriya Sam Vikas Yojna.
- GoI irregularly released Rs. 14.92 crore during 2008-09 for the Modernisation of Ranbir Canal Project, which had not been cleared by the Planning Commission as of June 2008.

10.9.4.1 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S16 - Irregularities in Financial Management of AIBP Projects in Jammu & Kashmir

Nature of Irregularity	Details
Delayed release of funds	■ There were delays ranging between 28 and 184 days in release of funds by the department in respect of 12 out of 23 test-checked schemes during the period 2004-05 to 2007-08.
Funds lying unutilised	■ Out of the total Central assistance of Rs. 229.06 crore during 2002-08, Rs. 17.99 crore remained unutilized as of March 2008. Further, matching State share of Rs. 1.02 crore could not be utilized during the same period.
Parking of funds under deposits	■ In one division, an amount of Rs. 0.44 crore was parked under deposits as of March 2008.
Diversion of funds	■ Funds of Rs. 2.02 crore in respect of 3 out of 23 test-checked schemes were diverted/utilized on activities/items not related to the programme of AIBP / approved schemes reports of the schemes during the period 2003-04 to 2007-08.
Reflection of Inflated figures of expenditure	■ Rs. 0.62 crore was irregularly reflected as expenditure incurred in the utilization certificate issued to the Government of India in respect of LIS Saranoo Thathi, when the whole amount was mainly advanced to various agencies.

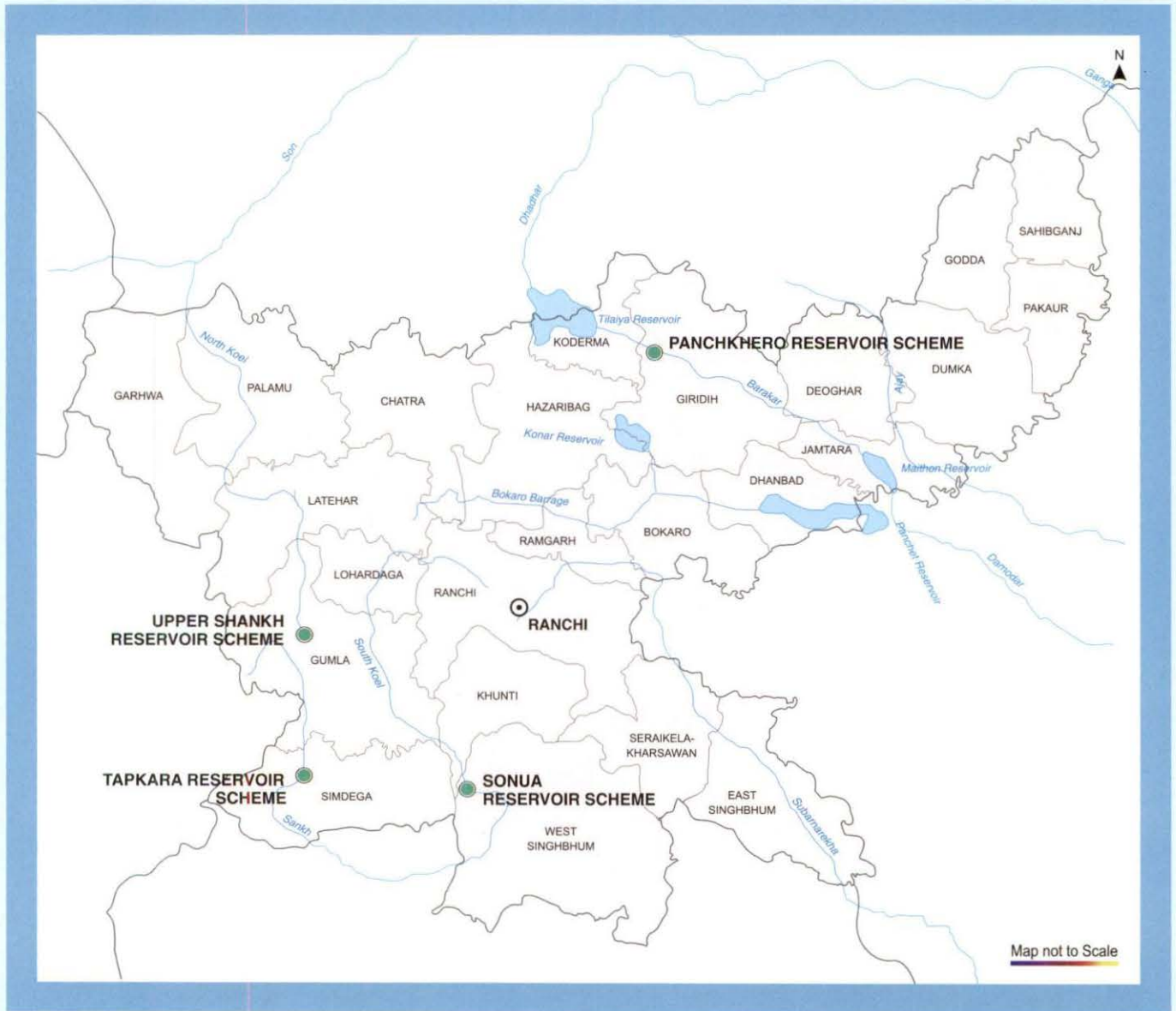
10.9.5 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.





JHARKHAND



LEGEND	
State Capital	
State Boundary	
District Boundary	
Medium Irrigation Projects	

Note: The Co-ordinates of Tapkara Reservoir Project were not provided by the CWC.



10.10.1 Background

GoI sanctioned 1 major and 8 medium irrigation projects under AIBP during 1998-2005. During 2002-08, GoI provided assistance of Rs. 48.34 crore and the State contributed Rs. 203.21 crore, out of which the reported expenditure, as of March 2008, was Rs. 210.15 crore. Out of the 9 projects taken up, 4 medium projects were selected for detailed audit scrutiny.

10.10.2 Overall Status of Reported Completion of Projects

Of the 9 major/medium irrigation projects, only two projects (Latratu Reservoir project and Tapkara Reservoir project) had been completed, and one project (Torari Reservoir project) had been kept in abeyance since 1999-2000 due to public hindrances.

10.10.3 Status of Completion of Test-Checked Projects

Audit scrutiny of the four test-checked medium projects revealed that:

- Only one project, Tapkara Reservoir Project, was completed. Even from this project, irrigation was provided only in 311 ha, against the targeted CCA of 2,732 ha. The targeted CCA was not being achieved due to heavy leakage of water from the main canal from chainage 0 to 100 kms, thin flow of water in chainage 101 to 150 kms, and no water flow beyond 150 kms, as the construction of aqueduct, branch canal and distributaries and repair/ maintenance work had not been undertaken.
- For the three ongoing projects, the cost overrun ranged from 10 to 15 times of the original cost, and the time overrun ranged from 18 to 25 years. Non-acquisition of land was the main cause of non-completion of the three ongoing projects.
- Unsynchronised execution of various components (Dam/head works, main/branch canals, distributaries and water courses) was seen in all four projects, as summarised below:

Table S17 - Unsynchronised Execution of Project components in Jharkhand

Projects	Unsynchronised Execution of AIBP components
Panchkhero Reservoir	The dam and main/ branch canals were 56 and 28 per cent complete; no work on distributaries and water courses was done.
Sonua Reservoir	The dam and main/ branch canals were 98 and 83 per cent complete; no work on distributaries and water courses was done.
Tapkara Reservoir	The dam and main/ branch canals were 100 and 75 per cent complete; no work on distributaries and water courses was done.
Upper Shankh Reservoir	The dam and main/ branch canals were 99 and 58 per cent complete; 25 per cent work on distributaries was done, but no work was done on water courses.

Chapter - 10

State
Specific
Findings

Jharkhand



- 114 works in the four selected projects were incomplete after a lapse of 1 to 18 years. Their non-completion was attributed to delay in land acquisition, public hindrance, delay in payment of land compensation, and the Naxal-affected nature of the area.
- 175 out of the 271 families affected by submergence in the Sonua and Panchkero Reservoir Projects had not been compensated.



Damage of canal boulder masonry wall at Chainage 11 km of Tapkara Project

Chapter - 10

State
Specific
Findings

Jharkhand



No water and need for bush clearing at Chainage 319 km of Tapkara Project



Incomplete aquaduct in Sonua Project

Chapter - 10State
Specific
Findings**Jharkhand**

Incomplete work in Left Main Canal of Panchkero Reservoir Project

- The BC Ratio for the Sonua Reservoir Project was incorrectly depicted in the DPR at 1.29 instead of 0.91, since it was wrongly based on data from Hazaribagh District, instead of Chaibasa District. Similarly, a recomputation of the originally projected BC Ratio of 2.64 for the Tapkara Reservoir Project on the basis of the actually utilized irrigation potential resulted in a BC Ratio of just 0.22. At these BC Ratios, the projects were not economically viable.
- The revised DPR for the Sonua Reservoir Project, on account of the estimated 35 per cent increase in cost in 2005, was not sent to MoWR for receiving clearance from the Planning Commission.
- Three out of four projects required 105.38 ha of forest land. However, in the case of Sonua and Tapkara Reservoir Projects, forest clearance had not yet been obtained, although the construction of the reservoir/ dam was almost complete and forest land had already been submerged. In the case of the Upper Shank Reservoir Project, the conditional clearance by the MoEF in August 1998 stipulated a penalty of Rs. 0.37 crore, as the construction had started without prior clearance.

10.10.4 Financial Management

Audit scrutiny revealed the following irregularities in Financial Management:

Table S18 - Irregularities in Financial Management of AIBP Projects in Jharkhand

Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> ■ In Upper Shankh Reservoir project, a sum of Rs 2.13 crore was irregularly paid to two contractors for meeting price escalation of materials, fuel and labour charges of the construction of earthen dam, though the clause for payment to meet price escalation was not incorporated in agreements executed with the contractors. ■ In Sonua and Upper Shankh Reservoir Projects, in case of 14 agreements (2 Agreements of Sonua and 12 agreements of Upper Shankh), a sum of Rs 1.76 crore due as penalty/liquidated damages for not completing the works within stipulated time frame was not recovered/short recovered from the contractors.
Parking of funds	<ul style="list-style-type: none"> ■ In Panchkhero, Sonua and Upper Shankh Reservoir Projects, Rs 6.86 crore was advanced for land acquisition between March 2001 to June 2007, of which only Rs 2.91 crore was adjusted, leaving a balance of Rs 3.95 crore in the bank, parked for periods ranging between 15 and 102 months. Similarly, in Panchkhero Reservoir Project, fund for rehabilitation amounting to Rs 6.55 crore was drawn by the division and advanced to Rehabilitation Officer during February 2005 to March 2008 but neither the account of expenditure nor any record, though called for, was made available to audit.
Irregular expenditure	<ul style="list-style-type: none"> ■ An expenditure of Rs 14.33 lakh was incurred on unapproved works by diverting the fund of Sonua Reservoir Project during the period 2002-04 without obtaining sanction from GOI.

10.10.5 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.

Chapter - 10

State
Specific
Findings

Jharkhand



KARNATAKA



LEGEND

- State Boundary ———
- District Boundary - - - - -
- State Capital ○●
- Major Irrigation Projects ●

Note: The Co-ordinates of Varahi Irrigation Project were not provided by the CWC.



10.11.1 Background

Gol sanctioned 6 major and 3 medium irrigation projects under AIBP in Karnataka during 1996-2008. While Gol assistance during this period was Rs. 3110.11 crore, the State's contribution was Rs. 1738.93 crore, and the entire amount of Rs. 4845.04 crore was reported as incurred, as of March 2008.

Of these 9 projects, 4 projects namely, Varahi, Upper Krishna Stage I (Ph-III), Upper Krishna Project Stage II and Karanja were selected for detailed audit scrutiny.

10.11.2 Overall Status of Reported Completion of Projects

Of the 9 Major/ Medium Irrigation Projects taken up till 2006-07, only one medium project (Maskinala) had been completed. Against the originally envisaged period of 24 to 36 months for completion, the time overrun ranged from 33 to 114 months. The cost over-run as per the latest revised estimates ranged from 24 to 302 per cent. Further, as against the targeted irrigation potential of 6,05,912 ha, the IP created as of March 2008 was 5,17,081 ha.

10.11.3 Status of Completion of Test-Checked Projects

Audit scrutiny revealed that:

- None of the four test-checked projects viz. UKP Stage-I (Phase III), UKP Stage-II, Varahi and Karanja, could be completed as of March 2008. The time overrun ranged from 3 years to 9 years, and the cost overrun ranged from Rs. 148 crore to Rs. 810 crore.
- The reasons attributed by the implementing agencies for shortage of creation of IP were slow progress of work due to land acquisition and rehabilitation and resettlement problems, non availability of declared command in some projects, and non clearance of bottlenecks in main canals and distributaries. Further, there was short utilization of created IP due to non-completion of canal works/ distributaries and non-completion of approach works, non creation of field irrigation channels and poor inflow of water in the catchment area.

Chapter - 10

State
Specific
Findings

Karnataka



Bottleneck in tail end of Almatti Left Bank Canal of Upper Krishna Project Stage-II

10.11.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S19 - Irregularities in Financial Management of AIBP Projects in Karnataka

Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> In Upper Krishna Project – Stage II, non levy of penalty for delay in supply of pumps resulted in non recovery of Rs. 3.60 crore from the pump supply contractor.
Embezzlement of funds	<ul style="list-style-type: none"> Funds worth Rs.1.39 crore were reported to have been embezzled in 10 cases in Krishna Bhagya Jala Nigam Limited (KBJNL), and departmental enquiry had been initiated in 2006.
Diversion of funds	<ul style="list-style-type: none"> In two projects (Upper Krishna Project – Stage II and Karanja Project), funds amounting to Rs. 8.08 crore were diverted for incurring expenditure on non-AIBP components viz. payment of bills pertaining to earlier periods on works and rehabilitation (Rs. 3.22 crore), maintenance of buildings & equipments (Rs. 2.24 crore), beautification of works (Rs. 2.04 crore) and payment of electricity bills (Rs. 0.58 crore).
Avoidable extra expenditure	<ul style="list-style-type: none"> In respect of various works under Upper Krishna Project – Stage II, designs and specifications were not properly examined/adopted, leading to avoidable extra expenditure of Rs.5.93 crore on two works due to defective estimation, and of Rs. 8.12 crore on four canal works due to provision of 100 mm thickness of Cement Concrete lining instead of a maximum thickness of 75mm.

10.11.5 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.



KERALA



Map not to Scale

LEGEND

State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●
Medium Irrigation Projects	●

Note: The Co-ordinates of Karapuzha Valley Irrigation Project, Muvattupuzha Valley Irrigation Project and Kallada Irrigation Project were not provided by the CWC.



10.12.1 Background

GoI approved two major projects, namely Kallada Irrigation Project (KIP) and Muvattupuzha Valley Irrigation Project (MVIP), and one medium project, namely Karapuzha Irrigation Project (KRP) under AIBP during 1996-2008 and released assistance of Rs 106.40 crore during 2003-08. After including the State share, the total availability of funds during 2003-08 was Rs. 271.64 crore, against which the reported expenditure was Rs 232.54 crore. All three projects were selected for detailed audit scrutiny.

10.12.2 Overall Status of Reported Completion of Projects

Of the three major/medium irrigation projects, only one project (Kallada Irrigation Project) had been completed.

10.12.3 Status of Completion of Test-Checked Projects

10.12.3.1 Kallada Irrigation Project (KIP)

The project was reportedly completed and commissioned in 2004. Audit scrutiny, however, revealed that :

- Subsequent revised estimates after the revised estimate of Rs 163.67 crore, approved in 1981, had not been submitted for investment clearance by the Planning Commission.
- Only 60 per cent, 25 per cent and 22 per cent of the work for three distributaries - Mynagappally, West Kallada Minor, and Kottapuram Minor could be completed as of August 2008, due to shortage of labourers and strike in quarry.
- The Poovathoor Distributary was completed, except for the 70m of railway crossing portion. Consequently, out of the total ayacut area of 514 ha, 314 ha could not be utilized.
- The Bhoothakulam Minor Distributary was completed in March 2006, except in Ch.0m to 250m due to non shifting of telephone cables and water supply lines from the existing cross roads.

Chapter - 10

State
Specific
Findings

Kerala



Bottleneck in work of Railway Portion of Poovattoor Distributary of Kallada Irrigation Project



Pulamon Distributary of Kallada Irrigation Project – Canal filled with grass and plantations on the banks

10.12.3.2 Muvattupuzha Valley Irrigation Project (MVIP),

The project was included under AIBP in 2000-01, with target date of completion of March 2010. Audit scrutiny revealed that:

- Out of the envisaged 6 branch canals and 60 distributaries, only 2 branch canals and 34 distributaries were completed. Works of branch canals for 13.61km (23 percent) and distributaries for 81.824 km (34 percent) were yet to be completed.
- Two works due to be completed in June 1998 and November 2003 were not completed as of August 2008 due to abandonment of the work by one contractor.
- Three works could not be completed as of August 2008 due to non availability of land, as these works had been awarded before getting government sanctions for acquisition of land.

Chapter - 10State
Specific
Findings**Kerala**

- The work of construction of Manjoor Distributary was completed, except from Ch.732m to 891m at the Railway crossing portion.
- The work, Ettumanur Branch Canal – Construction of aquaducts from Ch.18028m to 18525m, was completed in April 2005, except 2 piers on either side of the Railway boundary and an aquaduct barrel over the Railway line.
- The Mulakulam branch canal having a length of 6770 m was completed, except the portion from Ch.5650m to 6770 m. The reported reasons for non completion were the peculiar nature and geography of the site and heavy seepage and sliding of earth.
- Further, in two divisions (Thodupuzha and Muvattupuzha), expenditure of Rs 5.74 crore was incurred on unapproved works.



Non-initiation of work on Ezuthonipadam Aquaduct over Railway Line in Muvattupuzha Irrigation Project



Non-initiation of siphons on Railway line of Manjoor Distributary of Muvattupuzha Irrigation Project

Chapter - 10State
Specific
Findings**Kerala****10.12.3.3 Karapuzha Irrigation Project (KRP)**

The project was included under AIBP in 2006-07, with target date of completion in 2010. Audit scrutiny revealed that:

- Two works were completed after a delay of 16 and 61 months due to delay in finalization of designs and approval of revised estimates by the Department.
- Two other works, due to be completed by January 2005 and December 2005, were not completed, due to delay in payment of part bills, unfavorable weather conditions and non availability of materials.
- Only the main canals were completed, and the spill way was not completed. Out of branch canals of length 41.89 km, only 17.15 km (41 per cent) of the branch canals and only 2.12 km (3 per cent) of the distributaries were completed.

10.12.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S20 - Irregularities in Financial Management of AIBP Projects in Kerala

Nature of Irregularity	Details
Short release of funds	■ There was short release of Rs. 29.60 crore during 2003-08 by the State Government to the implementing agencies.
Rush of expenditure	■ In KIP, the entire expenditure of Rs. 0.75 crore was incurred during the last quarter in 2005-06, while in MVIP, the expenditure incurred during the last quarter in 2003-06 was Rs 110.65 crore. This was attributed to release of funds by the State Government in the last quarter.

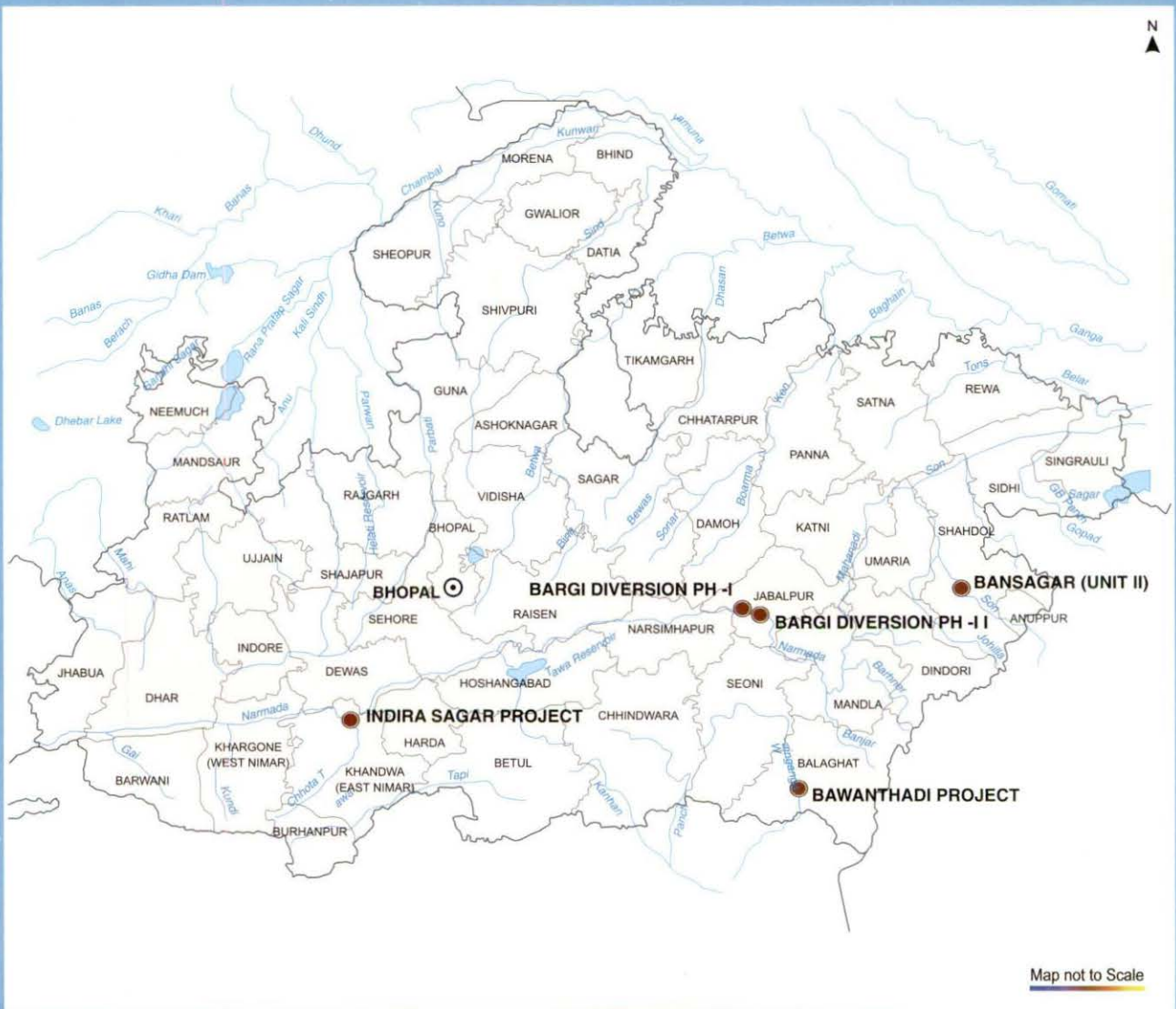
10.12.5 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.





MADHYA PRADESH



LEGEND	
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●

Note: The Co-ordinates of Bargi Diversion PH-I, Bargi Diversion PH-II, Bansagar (Unit II), Bawanthadi Project and Indira Sagar Project were not provided by CWC.



10.13.1 Background

112 Major, 3 Medium and 163 Minor Irrigation Projects were taken up under AIBP during 1996-2008. During 2002-08, GoI funding was Rs. 1860.21 crore, while the State share was Rs. 308.44 crore. Out of the available funds of Rs. 4491.00 crore (including unspent balance from previous years of Rs. 2322.40 crore), the expenditure incurred during 2002-08 was Rs. 3486.58 crore.

Of these projects, five major irrigation projects, namely Bawanthadi Project (Rajiv Sagar), Bargi Diversion Project – Phase II (Canal RD Km. 63-104), Bansagar Project – Phase II (Canal), Bargi Diversion Project – Phase I (Canal RD Km. 16-63) and Indira Sagar Project (Canal), and 16 minor irrigation projects under two river basins i.e. Chambal, Betwa, Bhopal and Narmada Tapti, Indore were selected for detailed audit scrutiny.

10.13.2 Overall Status of Reported Completion of Projects

Of the 15 major/ medium Projects taken up under AIBP during 1996-2004, only 5 Projects could be completed and the remaining 10 projects were incomplete. Of these, 2 projects were sanctioned in 1996-97, 1 project in 1998-99, and 2 projects in 2000-01; none of the 5 projects sanctioned during 2001-04 were completed.

Of the 163 minor irrigation projects,

- 17 projects were taken up in 2006-07, of which only 1 Project could be completed and 16 projects were ongoing as of March 2008.
- 146 Projects were sanctioned in 2007-08, of which 9 projects could not be started, and the remaining 137 projects were ongoing as of March 2008.

10.13.3 Status of Completion of Test-Checked Projects

Audit scrutiny revealed that none of the test-checked five major projects and only one out of 16 minor projects (Chhagola Project, Dist. Jhabua) were completed as of March 2008.

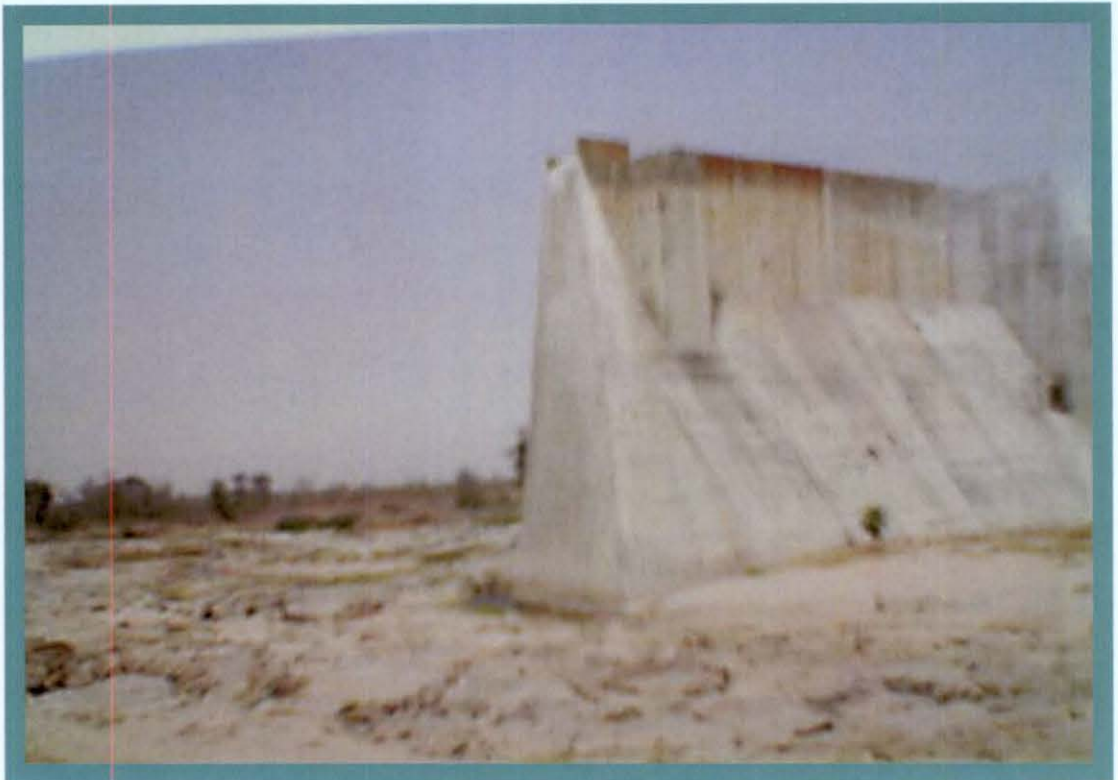
Further details of the projects are summarized below:

- In Bawanthadi Project, the most critical item of the project i.e. river closure was not done till October 2008, and the primary dam section of the project remained incomplete, although main/branch canals were almost complete.

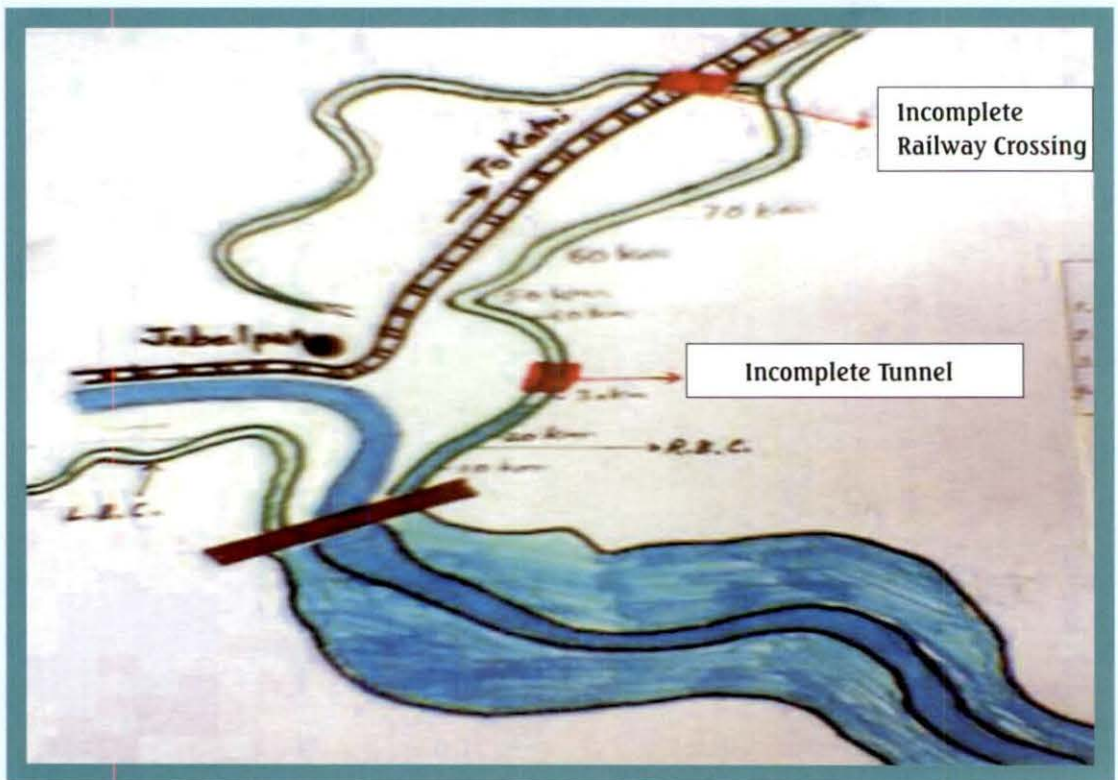
Chapter - 10

State
Specific
Findings

**Madhya
Pradesh**



Incomplete river closure of Bawanthadi Project



Bargi Diversion (Phase- I & II) – Madhya Pradesh, Diagram showing incomplete tunnel at Rd. km 33 to 35 and incomplete railway 'X'-ing at the starting reaches of Majholi branch canal

Chapter - 10State
Specific
Findings**Madhya
Pradesh**

The Bargi Multipurpose Dam was completed in the year 1988-1989. The Right Bank Canal (RBC)-taking off from Bargi Dam was re-named as Bargi Diversion Project (BDP) in 1992. Works in RD Km. 16 to Km 63 and RD Km. 63 to Km 104, of this canal, were taken up under AIBP in 2002-03 as Bargi Diversion Project Phase I and Phase II, respectively.

- In Bargi Diversion Phase – I Project (Canal RD Km 16-63 Km), the Work in RD Km. 16 to km 63 was taken up under AIBP in 2002-03, at an estimated cost of Rs.315.64 crore to irrigate 21194 ha, with target date of completion in May 2003. However, as of October 2008, the work was still under execution and only 7748 ha of IP had been created, of which IP of 710 hectare only could be utilized primarily due to non-completion of tunnel work in Km. 33-35. The delay in execution of tunnel work deprived utilization of IP beyond RD Km. 35. Further, works against administrative approval of Rs. 1101.00 lakh were split into as many as 10 different groups and awarded to a firm without adequately assessing its ability for simultaneous completion of so many groups on schedule. This resulted in unwarranted delays/abandonment/rescinding of all the 10 contracts. It also attracted litigations- and avoidable time/cost escalations on re-awards of the rescinded works to other contractors.



Incomplete tunnel work at road 33 to 35 km of Bargi Diversion Project – Ph-I

Chapter - 10State
Specific
Findings**Madhya
Pradesh**

- Bargi Diversion Phase – II Project (Canal RD Km 63-104 Km), was taken up under AIBP in 2002-03 at an estimated cost of Rs.295.00 crore, to irrigate 31889 ha, with target date of completion in December 2004. However, as of October 2008, the work was still under execution and no IP was created, mainly on account of non-completion of critical work of canal crossing of a main railway line at the starting reaches, which was neither identified in original DPR nor in adhoc proposals for fund under AIBP. Moreover, there was no point in taking up the Bargi Diversion (Phase II) Project, when the essential works of the phase –I project were still incomplete.
- In Bansagar Project (unit-II - Canal), the completed portions of the Right Bank Main canal in the initial reaches (between km 0 to 38) were having serious design deficiencies. The canal was able to carry only 1.5 cumecs against the envisaged 2.77 cumecs essential for achieving the designed irrigation potential through subsequent feeder canal network.
- Indira Sagar Project (Canal) was bifurcated into two phases (e.g. phase – I, upto 71 km. and phase – II, from 71 to 142 km). Both phases of canal remained incomplete even after a time overrun of over 5 years and an expenditure of Rs. 1182.00 crore (March 2008). The district road bridge at RD 42.31 km of main canal was still incomplete even after lapse of 12 years (since 1996-97). This left the created capacity beyond 42.31 km. totally un-utilizable.

10.13.3.4 Planning and Approval of Projects

Audit scrutiny of test-checked Projects revealed the following:

- In Bawanthadi Project, the Benefit Cost Ratio was inflated irregularly to 1.76, by ignoring the land development cost and irregularly adding a new item viz. cultivation in galper land (submergence area in summer season) without considering the actually irrigable area.
- In Bansagar Project (Unit-II - Canal), the BC Ratio was inflated due to deviations from guidelines on account of (i) non provision for higher depreciation on pumping mains/lines and other electrical/mechanical system being made, (ii) losses of cultivation in canal submergence areas not assessed and (iii) interest on capital being understated due to non-inclusion of land development costs.
- The B.C. ratio of the minor irrigation tank projects test-checked were found to be inflated. The significant deviations were (i) maintenance of headwork @ 1 per cent not added in annual costs (ii) cost of land development of command area not computed and added in project costs (iii) loss of agriculture in submergence area not deducted from annual benefits and (iv) charging lower depreciation of 1 per cent (100 years life) instead of 2 per cent for minor tanks (50 years life).



10.13.5 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S21 - Irregularities in Financial Management of AIBP Projects in Madhya Pradesh

Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> ■ In Bargi Diversion Project, price escalations amounting to Rs.53.27 lakh were irregularly paid to a contractor. ■ In Indira Sagar Project–(Canal), two contractors were awarded turn-key contracts and irregularly paid interest free mobilization advances of Rs. 45.00 crore, before actual work started.
Diversion of funds	<ul style="list-style-type: none"> ■ The government of Madhya Pradesh was liable to pay Rs. 165.73 crore from the state budget to Narmada Hydro Development Corporation for irrigation share of the dam to protect its 49 per cent share holding in the joint venture Company with NHPC after transferred assets valuations. But it was noticed in the revised DPR for Unit II, that AIBP grants were incorrectly diverted for this payment of Rs 165.73 crore without obtaining approval of MoWR.

10.13.6 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.



MAHARASHTRA



LEGEND	
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●
Medium Irrigation Projects	●

Note: The Co-ordinates of Sangola Branch Canal, Vishnupuri Project, Krishna and Patgaon Project were not provided by the CWC.



10.14.1 Background

Since 1996-97, 58 major/medium projects and 134 minor projects of the State of Maharashtra were included under AIBP. GoI released Central Loan Assistance (CLA) of Rs 1099.04 crore and Rs 2483.33 crore respectively as grants for completion of these irrigation projects. Further, the government of Maharashtra released Rs 1732.93 crore as its matching share. However, details of expenditure were not made available to Audit, as the state government did not maintain project-wise details of disbursement for all the AIBP Projects. The extent of utilization of GoI funds for AIBP funds could not be verified²¹.

Of the above projects, 8 major/medium and 15 MI projects were selected for detailed audit scrutiny.

10.14.2 Overall Status of Reported Completion of Projects

- Out of the 58 Major and Medium Projects taken up under AIBP, only 17 Projects could be completed as of March 2008; however, none of these projects had yet been commissioned.
- Further, despite non-completion of the earlier projects in hand, the State Government kept on including new projects, and MoWR approved these project for inclusion under AIBP, as detailed below:

Table S22 - Inclusion of new AIBP Projects in Maharashtra

Year	No. of ongoing projects under AIBP at the beginning of the year	No. of projects completed	No. of new projects included under AIBP	Balance ongoing projects at the end of the year
2003-04	21	7	1	15
2004-05	15	5	3	13
2005-06	13	4	8	17
2006-07	17	Nil	12	29
2007-08	29	1	13	41

- The issue of certain states (including Maharashtra) cornering the vast majority of AIBP funds during 2005-08, without linkages to the completion of AIBP projects and providing an incentive for inclusion of AIBP projects driven by construction work, has already been highlighted in paragraph 7.1 of this report. This, further, shows lack of commitment by the State Government in completing the older

²¹ The release of central assistance, state share, and expenditure incurred on AIBP components in respect of the test-checked projects was, however, ascertained by audit through field scrutiny of records of the project implementing agencies.

Chapter - 10State
Specific
Findings**Maharashtra**

projects sanctioned under AIBP, with attention being focused on inclusion of fresh projects under AIBP and receipt of GoI assistance therefor.

- In the State, 33,13,48 ha of IP was stated to have been created under AIBP at a total cost of Rs.5163.00 crore as of March 2008. However, as only the AIBP components of the projects had been completed and not the project as a whole (which included non AIBP components too), the projects could not be commissioned and the created IP could not be utilized.
- In respect of MI Projects, though 124 projects were sanctioned during 2006-07 and 2007-08, details regarding their status (ongoing/ completion etc.) were not available with the State Government.

10.14.2.1 Inclusion of fraction of components of projects

In the cases of major and medium projects, inclusion of projects under AIBP actually amounted to inclusion of project components, that too in fractions. However, the BC Ratio calculated and approved by CWC was based on the entire project cost and projected benefits to be derived from the completed project. Detail of the components which were proposed to be completed under AIBP in the selected Major and Medium Irrigation Projects were as listed below:

Table S23 - Inclusion of fractions of Components of Projects under AIBP in Maharashtra

S.No.	Name of the project	AIBP components
1	Bembala	4 per cent Head works, 65 per cent Main & branch canal, 90 per cent Distributaries
2	Arunawati	1 per cent Left Bank Canal, 3 per cent Distributaries, 34 per cent Water courses
3	Khadakpurna	20 per cent Earthen Dam, 40 per cent Main Dam, 68 per cent Main canal, 78 per cent LIS, 95 per cent Distributaries
4	Vishnupuri	36 per cent Main & Branch canal, 24 per cent Distributaries, 24 per cent Water courses
5	Patgaon	1 per cent Embankment, 9 per cent spillway, 50 per cent Gates
6	Sangola Branch Canal	Main Canal and its Branches 0 km to 103 km
7	Krishna River	0 km to 204 km of Main canal and branches of Arphal canal
8	Nandur Madhmeshwar Canal	Express canal lining work 0 to 128 km and distribution system

Clearly, the MoWR & CWC failed to assess the economic viability of the AIBP components of these projects, before release of GoI funds. The lack of viability of such fractured funding of projects under AIBP was confirmed by their non-commissioning and non-utilisation of IP, due to non-completion of the other (non-AIBP) components.



10.14.3 Status of Completion of Test-Checked Projects

Out of the test-checked projects, only three²² major projects and one²³ medium project were declared as completed in terms of AIBP components. However, two projects (Vishnupuri and Patgaon) out of the four projects were not commissioned²⁴ due to non-completion of non-AIBP components. None of the test-checked projects were executed as per the physical and financial programme projected in the AIBP proposals. In four²⁵ projects, divisions could not start the work and in five²⁶ projects, nearly 50 per cent of the grant could not be utilized mainly due to non availability of land (private and forest), rehabilitation issues and opposition from Project affected persons, etc.

Audit scrutiny of individual projects revealed the following:

- Patgaon Irrigation Project (Medium) was declared as completed in March 2007 at a revised cost of Rs.82.20 crore. However, the irrigation potential of 1992 ha said to have created under AIBP could not be utilized, as out of 17 Kolhapur Type (K.T) Weirs, four K.T. Weirs had collapsed and four K.T. Weirs required major repairs costing Rs 4.27 crore.
- In Bembala River Project, the construction of Dam and spillway was completed before June 2007 and water was stored in the reservoir from June 2007. However, due to non acquisition of land for 2.3 km of canal length in chainage 0 to 1.5 km and 1.7 to 2.5 km, the work of construction of the main canal was stopped since July 2007, and no irrigation was possible.
- The work of construction of 6 MIs (Chaupala MI Tank, Deopudi M.I, Sangamwadi M.I. Tank, Mawalgaon Storage Tank, Mirzapur M.I. Tank and Chopan M.I.) was hindered due to delay in land acquisition.

²² Vishnupuri (completed 2005-06), Arunawati (completed 2008-09), Krishna (completed 2008-09).

²³ Patgaon (completed in 2006-07).

²⁴ In respect of the other two projects (Arunawati and Krishna) formal gazette notification for commissioning of the projects had not been issued.

²⁵ Bhandarwadi, Mawalgaon, Ucchil, Wazar

²⁶ Chopan, Daul Hipparga, Sangamwadi, Sangola Branch Canal, Sindgi

Chapter - 10

State
Specific
Findings

Maharashtra



Incomplete Minors in Krishna Project



Canal work in progress in Kadakpurna River Project

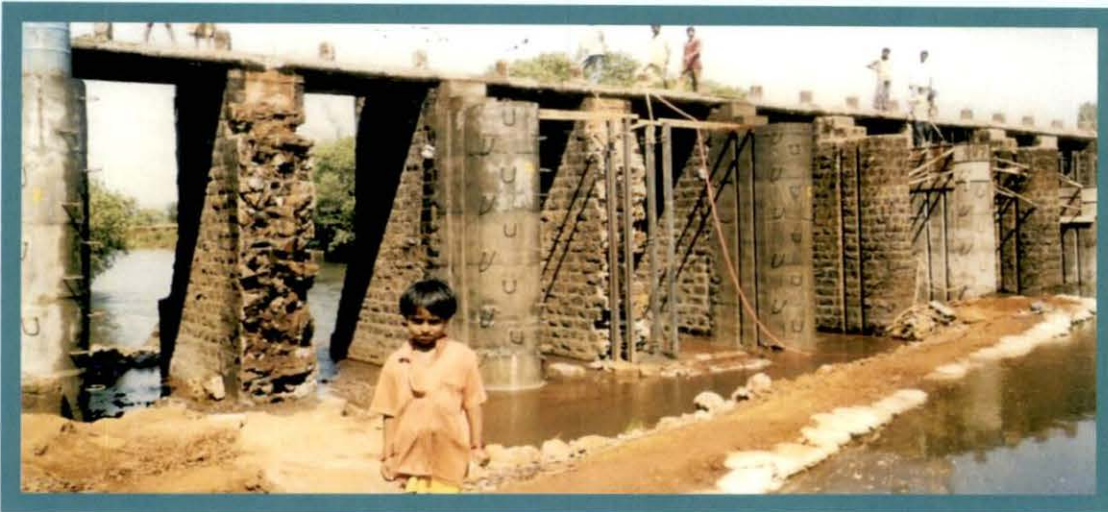


Slow progress of canal works in Arunawati River Project

Chapter - 10

State
Specific
Findings

Maharashtra



Repairs to the existing KT weirs in Patgaon Medium Project yet to be carried out



Chaupala MI Project – Canal work stopped due to land acquisition problems and obstructions from framers



Deoputi MI Project – Non-completion of Canal work in first 300 metre due to land acquisition problems

Chapter - 10

State
Specific
Findings

Maharashtra



Mirzapur MI Project – Non-completion of canal work due to land acquisition problems



KT Weir at Inamgaon – Non-completion of work despite availability of sufficient funds



10.14.3.1 Creation and Utilisation of Irrigation Potential

- Out of 23 Major/ Medium/ Minor Irrigation Projects test-checked in audit, the targeted IP was created in only seven projects. However, in respect of the test-checked 8 major/medium projects, the IP creation was theoretical, as it pertained only to the AIBP components.
- In Daul Hipparga Storage Tank, the work of construction of dam was almost completed and irrigation potential of 900 Ha was created (June 2007). However, only 478.75 Ha was handed over (January 2008) to the Water Users Association.
- In Vishnupuri Project, the project (AIBP component) was declared completed (March 2006) with creation of 2636 Ha of irrigation potential. However, as the Part-I works of the command area were not completed, the created irrigation potential could not be utilised.
- In Dhamangaon Storage Tank, the project was completed (March 2007) with 256 ha of irrigation potential. However, the created irrigation potential could not be utilised due to non existence of facilities for lifting the water and non formation of Water Users Association.

10.14.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S24 - Irregularities in Financial Management of AIBP Projects in Maharashtra

Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> ■ An amount of Rs 9.74 crore was passed on as undue benefit to contractors on account of price escalations and payment for work after expiry of the validity period of the contract and without obtaining extension.
Delayed release of funds	<ul style="list-style-type: none"> ■ In Vishnupuri Project, the State Government delayed release of AIBP assistance of Rs 4.00 crore to the implementing agency by 64 months. ■ In Bhandarwadi K.T.Weir and Wazar Storage Tank, despite the availability of funds, there was delay in approval/ issue of work orders. ■ The State Government did not furnish the details of project wise disbursement of Central Assistance to Audit, as they were reportedly not maintained by them.
Irregular expenditure	<ul style="list-style-type: none"> ■ Irregular expenditure amounting to Rs 13.51 crore was incurred on items such as engaging agencies for works relating to obtaining environmental clearance, making payment for unapproved components and for works executed prior to the inclusion of projects under AIBP.

10.14.5 Monitoring and Evaluation

Neither any State level / Project level monitoring committee had been constituted to monitor the implementation of the programme nor any study / performance evaluation of the AIBP projects was conducted with reference to improvement in irrigation efficiency.

MANIPUR



LEGEND	
Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●



10.15.1 Background

During 1996-2008, GoI sanctioned 2 major, 1 medium and 678 minor irrigation projects and provided assistance of Rs. 457.80 crore. Of these, one major project, namely Thoubal Multipurpose Project (TMP), and 20 MI projects were selected for detailed audit scrutiny.

10.15.2 Overall Status of Reported Completion of Projects

None of the 3 major/ medium projects were completed as of March 2008. Of the 678 minor irrigation projects,

- All 436 projects sanctioned during 1999-2000 and 2005-06 were reported as completed.
- None of the 242 projects sanctioned during 2007-08 were reported as completed.

10.15.3 Execution of Test-Checked Projects

The Thoubal Multipurpose Project (TMP) was originally approved by the Planning Commission in 1980 at an estimated cost of Rs.47.25 crore. However, the due date for completion of the project was rescheduled several times, purportedly due to financial constraints and law and order problems. The latest due date for completion was March 2009 at a revised estimated cost of Rs.715.81 crore. Despite expenditure of Rs.521.24 crore as of March 2008, the project was still incomplete. Construction of the main components of the project i.e. dam and spillway was only 45 per cent and 60 per cent respectively, while the progress of canals and distribution work were 88 per cent and 68 per cent respectively. Further, a joint field visit revealed that:

- Water was found flowing through the Left Main Canal (LMC) upto RD 13,939 km and Charangpat Branch Canal (CBC) upto RD 6.30 km during the rainy season only. Thereafter, the flow of water was hindered due to siltation and grasses/weeds.
- Construction of a canal syphon at RD 25.518 km was discontinued.

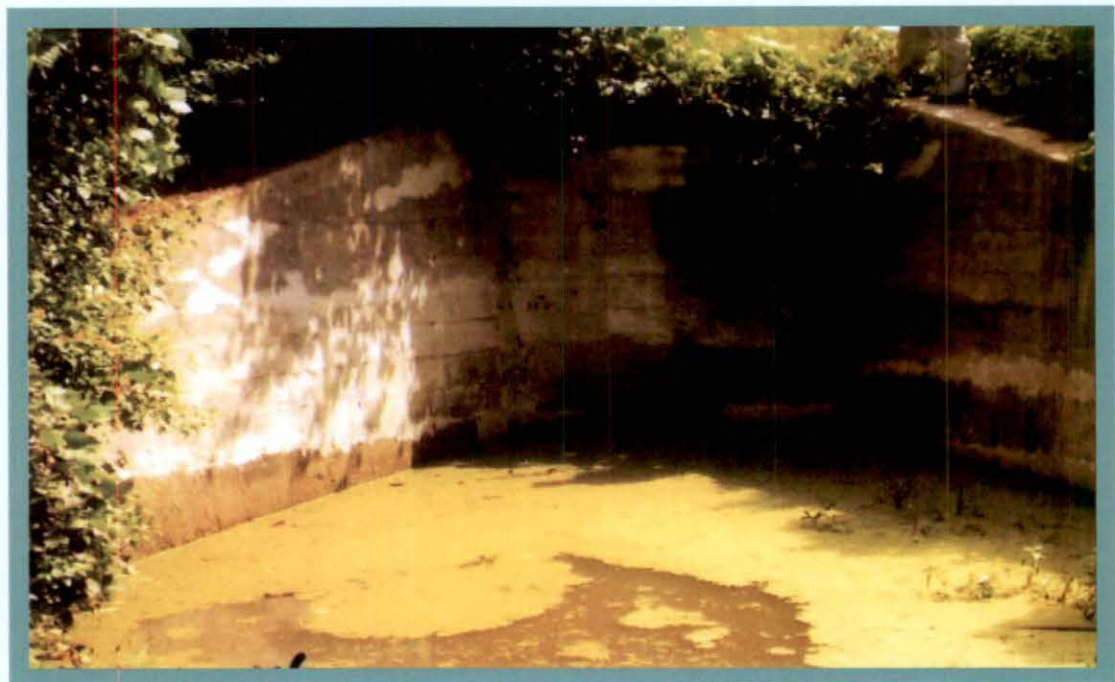
Chapter - 10

State
Specific
Findings

Manipur



Thoubal Multipurpose Project - Siltation & shrubs/ weeds in canal



Thoubal Multipurpose Project – Non-functional canal syphon at RD 25.518 km.

None of the 20 selected MI Projects were completed as of March 2008. During field visits and interaction with farmers, it was observed that the farmers were getting benefits mainly during the rainy season as there was insufficient water during lean season.



10.15.4 Planning and Approval of Projects

Audit scrutiny revealed that 15 MI Projects out of the 211 MI Projects sanctioned during 2005-06 and shown to have been completed in March 2007 had again been included in the 242 new projects sanctioned afresh in 2007-08 at a total estimated cost of Rs.10.43 crore.

10.15.5 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S25 - Irregularities in Financial Management of AIBP Projects in Manipur

Nature of Irregularity	Details
Undue benefits to contractors	■ An amount of Rs 7.57 crore was passed on as undue benefit to contractors on account of payments made on unapproved works, escalation charges, and by adopting incorrect rates, non recovery of penalty for non-completion of the works within the stipulated time frame and for non-employment of technical staff.
Diversion of funds	■ In TMP and Minor Irrigation Projects, funds amounting to Rs. 3.74 crore were diverted for non AIBP components viz. construction of staff quarter, office building, wall fencing, approach road, purchase of vehicle, camera, stationery, petrol, repair works, payments to Work Charged & Muster Roll staff, payment of electricity bills etc.
Delay in release of funds	■ There were delays, ranging from 10 days to 450 days, in release of funds for the major/ medium and minor irrigation projects by the State Government to the implementing agencies.
Short release of funds	■ There was short release of Rs.3.47 crore of Gol assistance by the State Government, which was wrongly reported to Gol as utilised.
Parking of funds	■ Rs. 47.60 crore of funds, during 2006-08, were parked under deposits and withdrawn/ utilised in the subsequent financial year.
Irregular expenditure	■ Expenditure of Rs 4.80 crore was incurred on commencing work on previously abandoned works.

10.15.6 Monitoring and Evaluation

Audit scrutiny revealed that:

- Only six visits had been made by the CWC for TMP during 2003-08.
- Similarly, for the MI Projects, no external independent agency was engaged for monitoring and no evaluation was carried out to assess the benefit in terms of irrigation potential created and actually utilised. Also, no Water Users' Association of MIPs had been formed in any of the selected projects.



MEGHALAYA



Map not to Scale

LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Medium Irrigation Projects	●



10.16.1 Background

GoI approved one medium irrigation project - Rongai Valley Project and 74 minor irrigation schemes during 1996-2008 and provided assistance of Rs.21.00 crore during the period. Of these, Rongai Valley Project and 11 minor irrigation projects were selected for detailed audit scrutiny.

10.16.2 Overall completion of Projects

The only medium irrigation project, Rongai Valley Project, was incomplete. Of the 74 minor irrigation projects:

- 20 out of 47 projects sanctioned during 1999-2001 were still incomplete.
- 27 projects sanctioned during 2007-08 had not yet been taken up for want of administrative approval.

10.16.3 Status of Completion of Test-Checked Projects

10.16.3.1 Rongai Valley Project

Rongai Valley Irrigation Project was taken up in January 1990 at an estimated cost of Rs. 16.30 crore for completion within four years. The Project envisaged construction of a 76.4 metres long barrage across river Rongai and unlined canals of 7.5 Km and 9.75 Km long on the left and right banks respectively to irrigate 5,153 hectares of land annually in the West Garo Hills District. In 2000-01, the project was brought under AIBP and Rs. 4.00 crore assistance was provided by GoI. However, audit scrutiny revealed that the project was still incomplete, even after 18 years from the date of its sanction, despite expenditure of Rs. 17.90 crore, as summarised below:

- In April 2003, the completion of the barrage was suspended, after 95 per cent execution, due to the contractor's refusal to continue the work, pending sanction of revised estimates and payment of bills. No physical progress had since been made.
- No further assistance had been provided by GoI due to increase in the project cost. Revised cost estimates had not been approved by the GoI as they were not as per the guidelines of the CWC and the Planning Commission.
- In September 2007, GoI had advised that no work be taken up, until the entire land for the canal system was acquired. However, no land had been acquired for the canal system and follow up action on this aspect could not be ascertained.

Chapter - 10

State
Specific
Findings

Meghalaya

10.16.3.2 Minor Irrigation Projects

The MoUs in respect of the minor irrigation projects sanctioned under AIBP during 1999-2001 were not signed by the State Government. Also, nine out of the eleven test-checked projects could not be completed within the prescribed time schedule, and the delay in completion ranged between one and six years, as detailed below:

Table S26 - Status of MI Projects in Meghalaya

(Rs. in Lakh)

S.No.	Name of Project	Date of Start of Project	Target Date of Completion	Status/ Actual Date of Completion	Approved Cost	Actual Expenditure	Reasons for delayed completion/ non-completion
1	Chiljora Flow Irrigation Project (FIP)	1999 - 2000	2001-02	Completed/ 2003-04	110.36	114.30	Delay in award of works
2	Gandual FIP	2002-03	2004-05	Completed/ 2005-06	53.53 (O) 61.30 (R)	63.79	Delay in award of works
3	Ringdee FIP	2000-01	2002-03	Ongoing	272.05	260.85 as on March 2008	Inadequate planning and unsynchronized execution of work
4	Andherkona FIP	2001-02	2003-04	Completed/ 2006-07	231.74 (O) 339.33 (R)	330.31	Required revision due to inclusion of additional items of works
5	Kharukol FIP	1999 - 2000	2001-02	Completed/ 2007-08	106.44 (O) 127.93 (R)	127.93	Required revision due to inclusion of additional items of works
6	Galasara FIP	2001-02	2003-04	Completed/ 2006-07	49.37 (O) 60.60 (R)	60.60	Delay in issue of work order
7	Lyting Lyngdoh FIP	2001-02	2003-04	Completed/ 2003-04	30.60	30.79	Completed
8	Madan Jynru FIP	2001-02	2003-04	Completed/ 2004-05	47.20	49.01	Defective site selection
9	Lyngkholi FIP	2001-02	2003-04	Completed/ 2005-06	192.72	202.26	Land acquisition problem
10	Pyntor song FIP	1999 - 2000	2000-01	Completed/ 2000-01	22.49	22.52	Completed
11	Mynrud Moopasor FIP	1999 - 2000	2001-02	Ongoing	64.64 (O) 73.87 (R)	73.45 as of March 2008	Incomplete due to one contractor not taking up the work

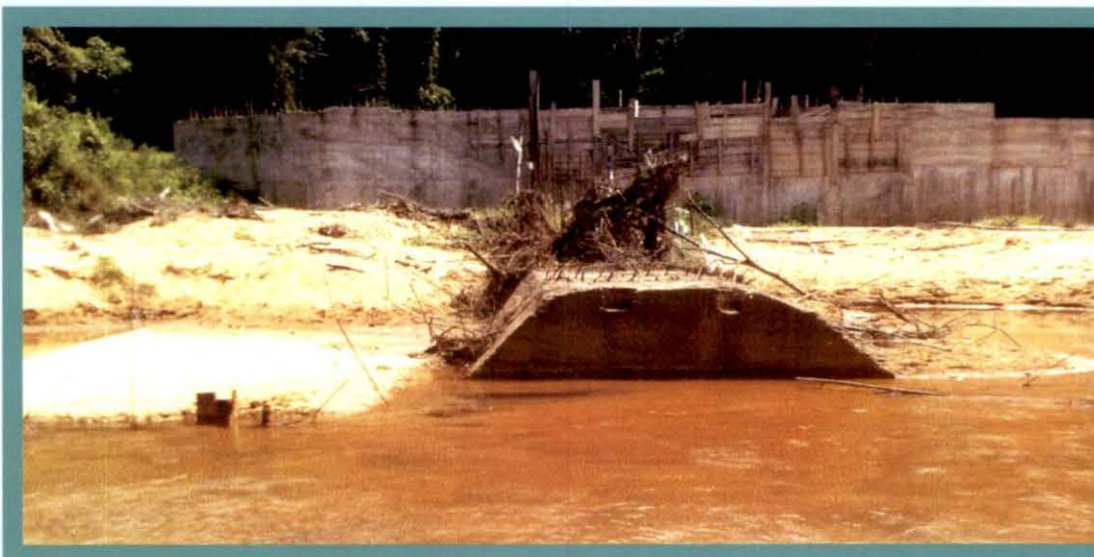
Chapter - 10

State
Specific
Findings

Meghalaya



Gandual MI Project – Cross Regulator in the earthen canal with no water in the canal



Ringdee MI Project – Headwork in progress

10.16.4 Planning and Approval of Projects

Audit scrutiny of eleven selected MI projects revealed that there were no records of conduct of survey, and the DPRs did not cover various important aspects viz. hydrological and metrological investigations, availability of potential ground water, and details of command area showing climate, seasonal distribution etc. Further, some of the MI Projects, despite being declared as completed, were not able to provide the desired benefits, as discussed below:

- In the Madan Jynru FIP the discharge at the tail end was low, due to improper alignment of the pipeline, which was shifted from the original alignment due to quarrying activities along the hill slope.

Chapter - 10

State
Specific
Findings

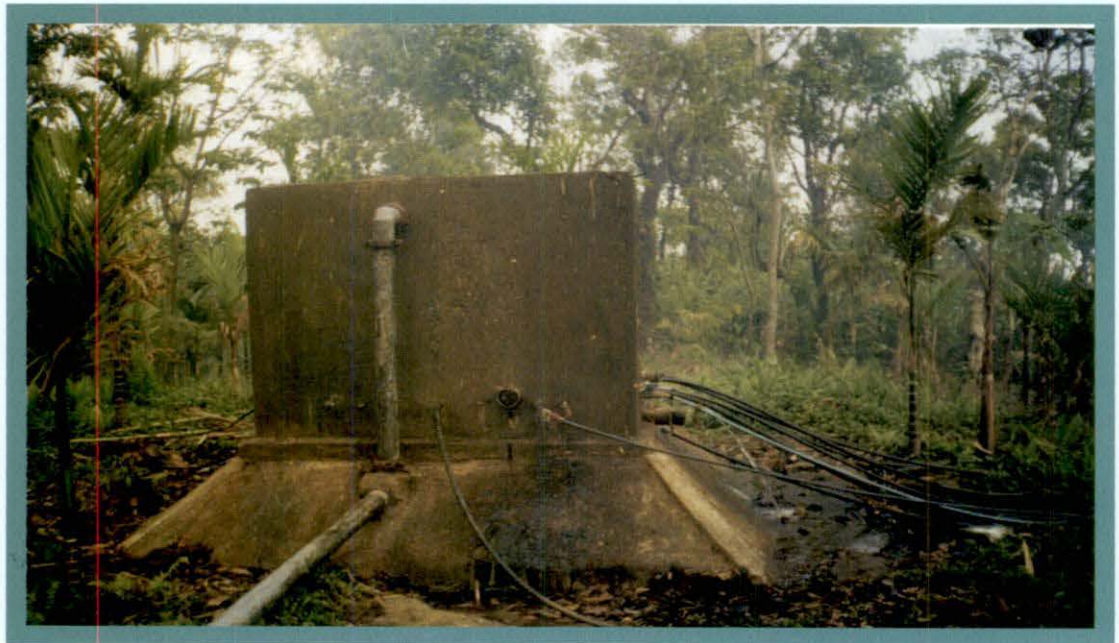
Meghalaya



- In Lyngkhoi FIP, Lyting Lyngdoh FIP and Pynthor Song FIP, despite the fact that the projects were completed and supplementary works were executed, the supply of water at the tail end continued to be less due to unequal and improper distribution of water and lack of effective participation of the beneficiaries.



Lyngkhoi MI Project – Less water at the tail end



Lyting Lyngdoh MI Project – Water being distributed among farmers through PVC pipes

10.16.5 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S27 - Irregularities in Financial Management of AIBP Projects in Meghalaya

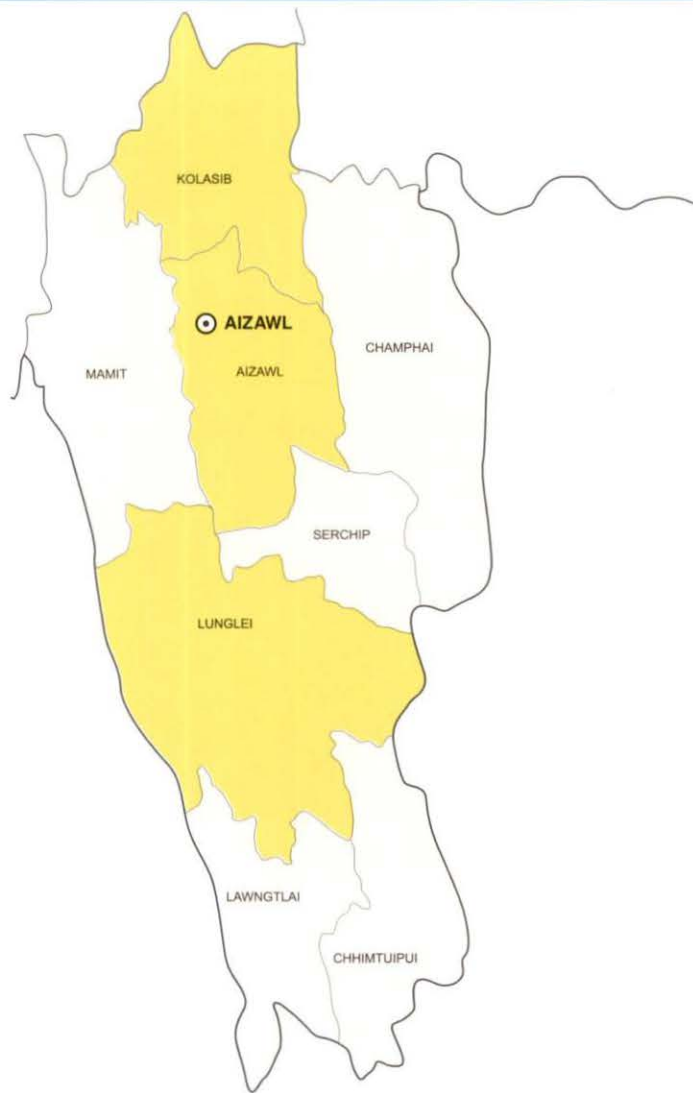
Nature of Irregularity	Details
Short release of funds	<ul style="list-style-type: none"> There was shortfall of 4 to 44 per cent in release of funds by the State Government to the implementing agencies.
Non-release of Central share	<ul style="list-style-type: none"> During 2007-08, only the State share of Rs.0.51 crore was released and the Central share of Rs.1.16 crore was not released. However, even despite these limited funds, there were savings of 1 to 50 per cent during 2003-08 by the executing divisions.
Irregularities in UCs	<ul style="list-style-type: none"> The Statements of Expenditure were forwarded along with Utilisation Certificates to the Government of India during 2003-04 to 2006-07 without getting them audited by the Accountant General.

10.16.6 Monitoring and Evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme



MIZORAM



LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Coverage of Minor Irrigation Projects	■



10.17.1 Background

During 1999-2008, 186 MI Projects were sanctioned under AIBP in Mizoram. During 2003-08, Govt had released assistance of Rs.72.19 crore, against which the State Government released Rs. 86.20 crore, including the State share, to the implementing agencies. Seven MI Projects in three Divisions namely, Aizawl, Lunglei and Kolasib, were selected for detailed audit scrutiny.

10.17.2 Overall Status of Reported Completion of Projects

Out 186 MI Projects sanctioned during 1999-2000 to 2007-08, 124 MI projects were completed and 62 projects were ongoing.

10.17.3 Status of Completion of Test-Checked Projects

Three projects, namely, Sakelui- Thingsul, Saphak – Pangzawl and Saihapui in three selected divisions were reported as completed, as per the physical progress report furnished by the State. However, during physical verification and also as reported by the departmental authorities during audit, the projects were still under progress.



Reservoir under construction in Saihapui MI Project under Kolasib division

Chapter - 10

State
Specific
Findings

Mizoram



Earthen dam and spillway under construction in Saihapui MI Project under Kolasib division

10.17.4 Planning and Approval of Projects

- Despite the fact that the topographical and geographical condition of the areas falling under the three divisions test-checked were similar, there was wide variation in the projected cost per ha of the sample test-checked of the three divisions, which ranged between Rs.1.52 lakh per ha to Rs.2.92 lakh per ha i.e. a variation of 92 percent . Moreover, sanctioning of projects with cost per ha of more than Rs. 1 lakh (revised to Rs. 1.5 lakh in December 2006) was in contravention of the AIBP guidelines. Wide variation in projected cost of these projects suggest that the estimates were theoretical.
- The correctness of the BC Ratio in all the test-checked and the authenticity of the data could not be vouchsafed, as the data was reportedly collected in oral form. Even the change in cropping pattern projected in the DPR was reportedly on the basis of the general oral opinion collected during detailed survey and investigation of the area.

10.17.5 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S28 - Irregularities in Financial Management of AIBP Projects in Mizoram

Nature of Irregularity	Details
<p>Irregular Utilization Certificates</p>	<p>Utilization Certificates were used to wrongly report a higher expenditure to MoWR as detailed below:</p> <ul style="list-style-type: none"> ■ In Chhimluang- Saitual project, the expenditure reported to MoWR in December 2007 was Rs. 120.53 lakh, whereas the expenditure reported to Audit by the departmental authorities was only Rs. 65.36 lakh.



Nature of Irregularity	Details
Irregular Utilization Certificates	<ul style="list-style-type: none"> ■ In Tuichar- Lungpher project, the expenditure reported to MoWR in December 2007 was Rs. 83.42 lakh, whereas the expenditure reported to Audit by the departmental authorities was only Rs. 64.00 lakh. ■ In Saichhun Thualthu project, the expenditure reported to MoWR in December 2007 was Rs. 130.67 lakh, whereas the expenditure reported to Audit by the departmental authorities was only Rs. 70.32 lakh. ■ In Saphak, Pangzawl project, the expenditure reported to MoWR in December 2007 was Rs. 189.52 lakh, whereas the expenditure reported to Audit by the departmental authorities was only Rs. 120.51 lakh.
Irregular expenditure	<ul style="list-style-type: none"> ■ In three projects in Aizawl District, the authenticity of payment of Rs. 0.94 crore to labour/ firms could not be verified, as payments were made to the labourers through deficient muster rolls/ payment made to anonymous firms.
Delay in release of funds	<ul style="list-style-type: none"> ■ During 2003-04 to 2007-08, the Ministry of Finance had released the Central funds of Rs.72.19 crore in instalments to the State Government i.e. for 2003-04 during December to March; for 2004-05 in March 2005; for 2005-06 during September to January; for 2006-07 during December to March and for 2007-08 during April to March. However, the different implementing agencies were funded, together with the State's matching share in batches only in the month of March i.e. at the fag end of the years 2003-04, 2004-05, 2005-06 & 2006-07 and during December to March of 2007-08. Thus, the Gol allocation was not released by the State Government of Mizoram within 15 days of its receipt to the Implementing agencies.

10.17.6 Outcome and impact of the MI Projects

Out of 186 MI Projects sanctioned up to 2007-08 under AIBP, 124 projects were stated to have been completed with an expenditure of Rs. 92.75 crore as of March 2008. However, a comparative analysis of the production data of some of the major crops in the State, based on information given to audit, revealed that during 2001-02 to 2007-08, the production of major crops like Paddy, Maize, Oilseeds, Sugarcane and Potato had not increased significantly.

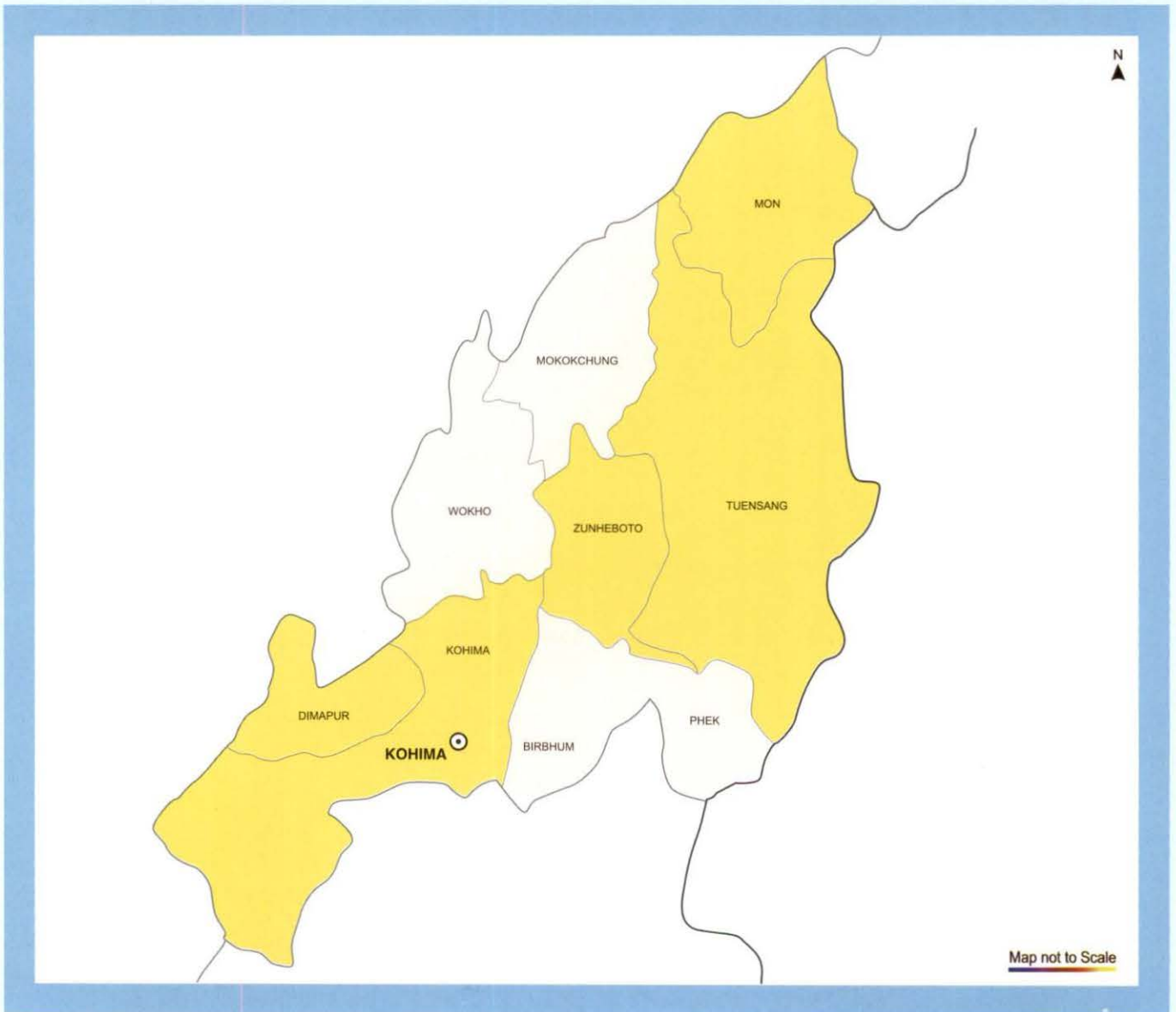
10.17.7 Monitoring and Evaluation

Monitoring of the AIBP Projects was deficient as:

- No State level monitoring committee had been formed.
- No performance evaluation in the State had been carried out for improvement in irrigation utilization and usage efficiency.
- The CWC and MoWR authorities had not carried out any monitoring inspections of the selected projects.



NAGALAND



LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Coverage of Minor Irrigation Projects	■



10.18.1 Background

During 1999-2008, GoI approved 965 MI Projects under AIBP, of which 424 projects were approved during 2003-08. GoI released Rs.71.09 crore of central assistance during 2003-08 and the State Government contributed Rs.15.33 crore as its share, with a total reported expenditure of Rs.89.10 crore. Of the above 424 projects, 17 projects were selected for detailed audit scrutiny.

10.18.2 Overall Status of Reported Completion of Projects

Out of the 469 MI Projects being executed during 2003-08 (424 new projects and 45 ongoing projects), 395 Projects were reportedly completed, and 74 Projects were ongoing as of March 2008.

10.18.3 Status of Completion of Test-Checked Projects

Out of the 17 selected MI Projects, 11 Projects, which were sanctioned in 2006-07, were reportedly complete. Seven projects (Chathe Ph II, Aphughoki MI, Nyapongsum Ph II, Kherezhu MI, Tishi, Longnok Tegee MI and Thezairie) out of these 11 projects were complete, while four projects (Langlong MI, Langlong - Ph II MI, Awokupughoki MI and Dikhu Valley) were still in progress.

Scrutiny of the records and physical verification of the test-checked projects revealed the following:

- The work Langlong MI project – Phase I was shown as completed in November 2007 at a cost of Rs.5.12 crore. However, the value of the work done was only Rs.3.61 crore upto March 2008 according to the progress report furnished to audit, which was also corroborated by a joint verification which revealed that the work was in progress.
- In the two projects- Langlong MI Project - Phase II and Awokupughoki MI Project, which were reported as complete, the physical progress was only 20 per cent. The physical progress in Dikhu Valley MI Project, which was also reported as complete, was 90 per cent.
- The construction of Nzu minor irrigation project under Kohima Division was taken up in December 2007 at a cost of Rs.0.30 crore and as of March 2008, the value of work done was Rs.0.15 crore and the physical progress was 20 per cent as per measurement book. However, the Executive Engineer intimated that the project was yet to start.

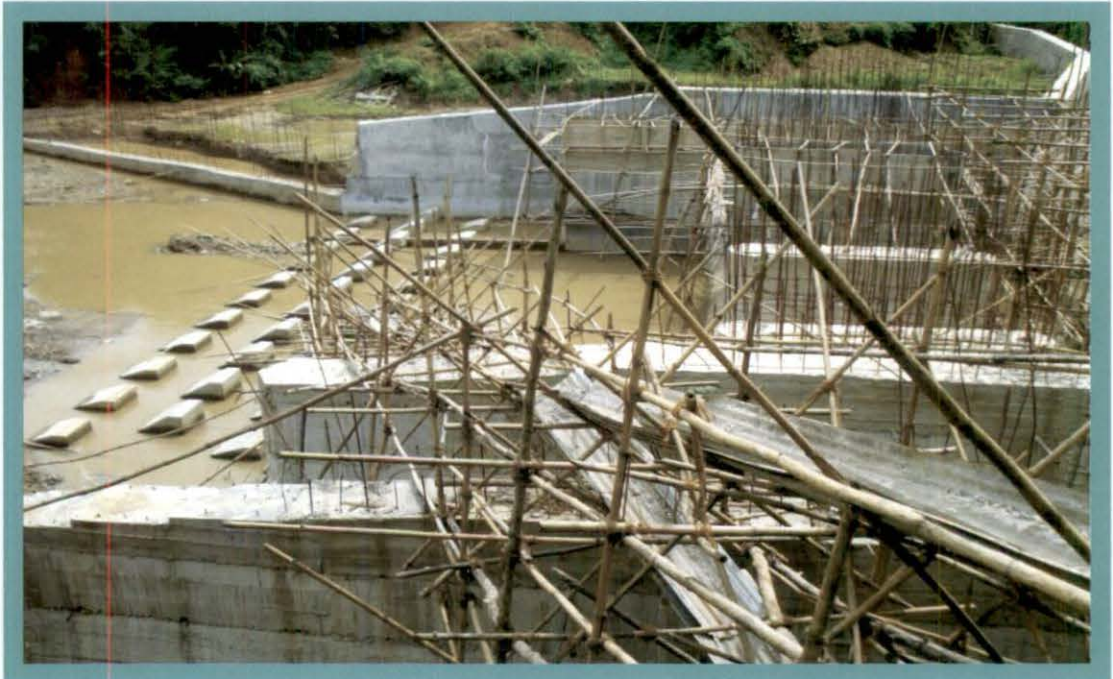
Chapter - 10

State
Specific
Findings

Nagaland



- As per the measurement books, the work of Kicheliqa MI Project was started in November 2007 and the value of work done till October 2007 was Rs.2.40 lakh. The Executive Engineer concerned, however, intimated audit that the work on the project was yet to start.



Langlong MI Project Phase I & II – Work in progress in July 2008, despite the project being declared as completed in November 2007 (Ph-I) and February 2008 (Ph-II)



Awokupughoki MI Project – Work in progress in July 2008, despite the project being declared as completed in January 2008

Chapter - 10

State
Specific
Findings

Nagaland



Dikhu Valley MI Project – Work in progress in July 2008 despite the project being declared as completed in December 2007

10.18.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S29 - Irregularities in Financial Management of AIBP Projects in Nagaland

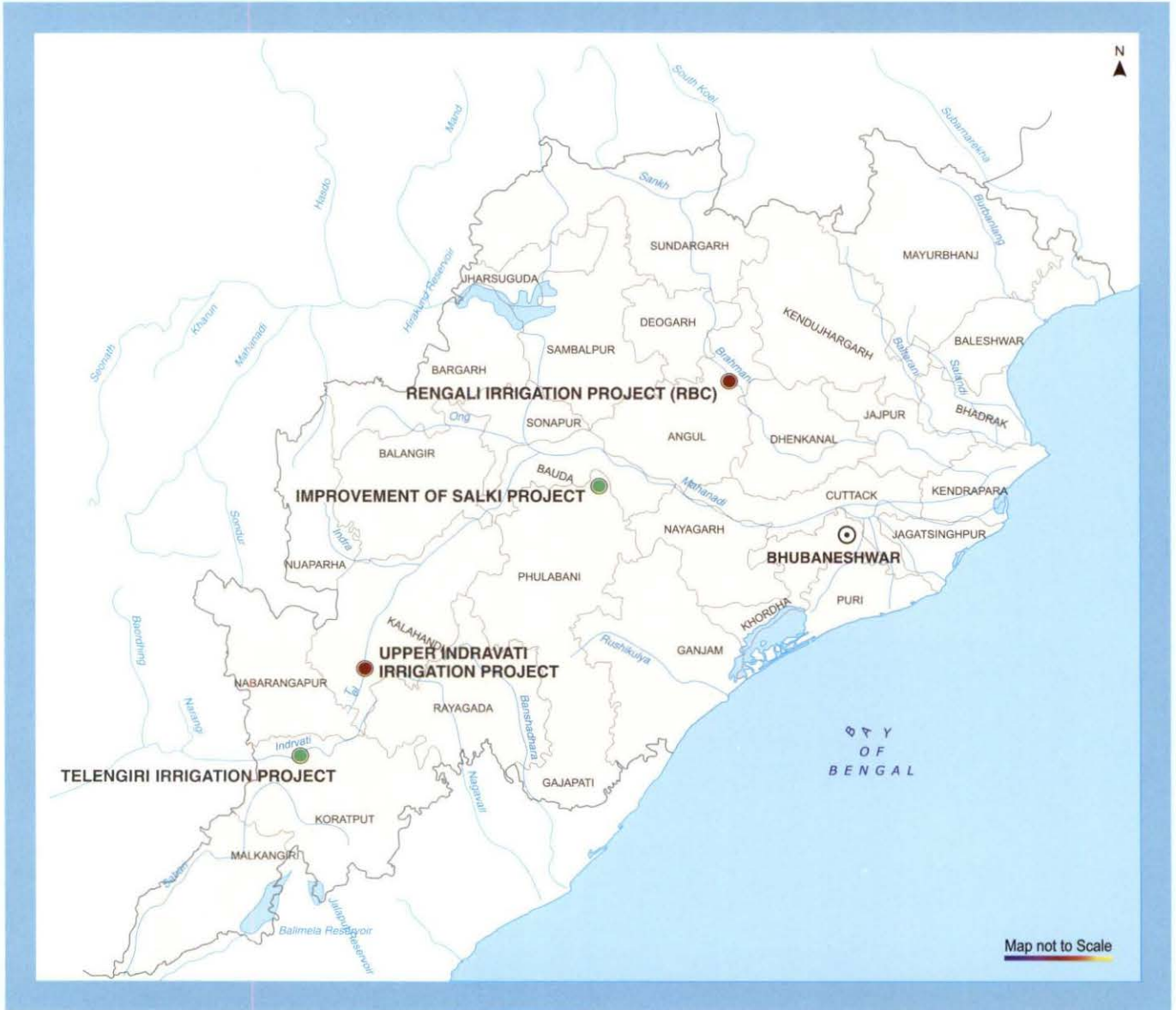
Nature of Irregularity	Details
Irregular expenditure	<ul style="list-style-type: none"> A sum of Rs.28.94 lakh was irregularly spent on purchase of vehicles, computers and furniture etc.
Delays in release of funds	<ul style="list-style-type: none"> There were delays in release of funds by State Government, ranging from 10 days to 210 days, to the executing agencies.

10.18.5 Monitoring and Evaluation

No Monitoring Committee was formed, as of March 2008, either at the State or Project level. The monitoring system remained confined only to inspection from the C.E's office on a random basis during progress of work.



ORISSA



LEGEND	
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●
Medium Irrigation Projects	●

Note: The Co-ordinates of Improvement of Salki Project were not provided by the CWC.



10.19.1 Background

During 1996-2008, GoI released loan assistance/grant of Rs 1835.14 crore for taking up 18 Major/Medium and 41 Minor Irrigation Projects. Two major projects – Rengali Irrigation Project (RIP) and Upper Indravati Irrigation Project (Right Canal System and U.I. Extensions), two medium projects – Telengiri Irrigation Project (TIP) and Improvement to Salki Irrigation Project, and 16 minor irrigation projects were selected for detailed audit scrutiny.

10.19.2 Overall Status of Reported Completion of Projects

Out of the 18 Major/Medium Irrigation Projects and 41 Minor Irrigation Projects, only seven Major/Medium Irrigation projects and 17 MI Projects had been reportedly completed after incurring an expenditure of Rs 370.48 crore.

10.19.3 Status of Completion of Test-Checked Projects

10.19.3.1 Completion of Projects – Major & Medium

Out of the four test-checked major/medium projects, only one medium project, namely Improvement to Salki Irrigation Project, was completed. The remaining projects were not fully completed/commissioned due to the constraints enumerated as follows:

- **Right Bank Canal (RBC) of Rengali Irrigation Project (RIP)**
 - The RBC of RIP, which was taken up in 1996-97, was executed in a piecemeal manner, resulting in time over run of over nine years and a cost over run of Rs 421.19 crore. Against the requirement of 1820.86 ha of land, only 1620.32 ha of land had been acquired.
 - Against the nine railway/NH crossings required to be constructed, the construction of only five railway crossings was completed.
 - The construction of distribution systems was only 23 per cent complete. Out of 27 distributaries/minors/sub-minors of RBC, only one minor was completed.
- **Upper Indravati Irrigation Project (UIIP)**
 - The Right Canal System was completed after a time overrun of four years and cost overrun of Rs 87.36 crore. Further, the extension of left and right canal systems could not be completed on account of delay in acquisition of land, non finalization of designs, and non construction of bridges over canal crossings.
 - The lift canal system was not taken up.

Chapter - 10

State
Specific
Findings

Orissa



■ **Telengiri Irrigation Project (TIP)**

- Against Rs 73.41 crore provided for head works, the expenditure incurred was Rs 131.04 crore i.e. 79 per cent excess over the estimated cost. The cost overrun was attributed to inadequate planning, delay in land acquisition and non finalisation of rehabilitation claims in time. Further, 338.53 ha of Government land was pending acquisition out of the total requirement of 1412.59 ha.
- The injudicious decision of the Department to construct spillway on the river bed without ascertaining the underground rock strata led to abandonment of the site and rendered the expenditure of Rs 99.20 lakh as wasteful. Further, the completion schedule of the project was also consequently delayed by four years.



Right Bank Canal (RBC) of Rengali Irrigation Project (RIP) – Failure of slope and slippage of embankments at RD 34.24 km of RBC



Upper Indravati Irrigation Project – Syphon Aquaduct over river Sagada at RD 2820 metre of REMC remained incomplete due to non finalization of design

Chapter - 10State
Specific
Findings**Orissa**

Telengiri irrigation Project – Abandoned site of spillway

10.19.3.2 Completion of Projects – MI Projects

- Out of 16 MIPs taken up, only three projects (Chitrangi, Hirapur and Chipuljore) were completed. None of the projects was completed within the stipulated period due to non acquisition of land, delay in forest clearance and change in scope of the work during execution. The delay in completion of the projects ranged between two to five years.
- Further, in three MIPs (Kurubela, Laxmipur and Jagumguda) clearance from the Ministry of Environment and Forests (MoEF) for 26.39 ha of Government land was pending.

Chapter - 10

State
Specific
Findings

Orissa



Doraguda MI Project – Incomplete Head reach canal from RD 00 metre to 1250 metre

10.19.3.3 Creation and Utilisation of Irrigation Potential

- As against the creation of targeted irrigation potential of 5,911 ha, only 1,570 ha irrigation potential was created in five MIPs, out of which only 350 ha was assessed for collection of Compulsory Basic Water Rates (CBWR).
- In the Right Bank Canal of Rengali Irrigation Project, irrigation potential of 0.01 lakh ha was reported to have been created against the targeted potential of 0.21 lakh ha and trial irrigation was provided during 2007, but thereafter no irrigation was provided.
- In Upper Indravati Irrigation Project, the project authorities claimed to have created 0.01 lakh ha in the right extension canal, but the same was subsequently reported by state government as not created.

10.19.4 Planning and Approval of Projects

- The revised estimates of RBC of Rengali Irrigation Project and Upper Indravati Irrigation Project were not prepared, as a result of which the techno-economic viability of the projects on the basis of revised costs could not be assessed.



10.19.5 Financial Management

10.19.5.1 Undue Benefits to Contractors

In the three major/medium and 11 MI irrigation projects test-checked in audit, poor management of contract and improper planning in execution of works resulted in undue benefit to the contractors to the tune of Rs 138.77 crore (Rengali Irrigation Project – Rs 57.94 crore, Telengiri Irrigation Project – Rs 50.88 crore, Upper Indravati Irrigation Project – Rs 19.40 crore and MIs – Rs. 10.55 crore), as detailed below:

Table S30 - Undue Benefits to Contractors in AIBP Projects in Orissa

Nature of Irregularity	Details
Rengali Irrigation Project	<ul style="list-style-type: none"> ■ Re-execution of abandoned works – Rs 9.54 crore ■ Unfruitful expenditure on account of incomplete works/substandard execution – Rs 33.63 crore. ■ Payment for inadmissible work/ inflated measurement – Rs 4.43 crore ■ Extra expenditure on account of non-acceptance of lowest tender – Rs 1.14 crore ■ Adoption of higher rates – Rs. 5.07 crore ■ Payment of escalation charges – Rs. 0.30 crore ■ Un-adjusted advances – Rs 3.83 crore.
Upper Indravati Irrigation Project	<ul style="list-style-type: none"> ■ Invitation of tenders without acquisition of land - Rs 1.97 crore. ■ Payment for inadmissible items – Rs 1.06 crore. ■ Non-deduction of cost of surplus earth – Rs. 0.93 crore ■ Non-deduction of settlement charges – Rs. 2.37 crore. ■ Non-compliance with OPWD codal provisions – Rs. 1.69 crore ■ Adoption of higher rates – Rs. 8.54 crore ■ Non-levy of liquidated damages – Rs.2.77 crore ■ Payment of escalation charges – Rs. 0.07 crore
Telengiri Irrigation Project	<ul style="list-style-type: none"> ■ Adoption of higher rates – Rs. 10.70 crore ■ Non-deduction of hidden charges – Rs. 11.56 crore ■ Non-levy of liquidated damages – Rs.10.84 crore ■ Payment of escalation charges – Rs. 0.15 crore ■ Injudicious execution leading to abandonment of work – Rs. 17.63 crore
MIPs	<ul style="list-style-type: none"> ■ Adoption of higher rates – Rs. 0.50 crore ■ Non-levy of liquidated damages – Rs.0.08 crore ■ Execution of unapproved rates – Rs.2.88 crore ■ Execution of works without acquisition of land - Rs 7.09 crore

Chapter - 10

State
Specific
Findings

Orissa



10.19.5.2 Other Financial Irregularities

Other instances of financial irregularities in the test-checked projects are summarized below:

Table S31 - Other Financial Irregularities in AIBP Projects in Orissa

Nature of Irregularity	Details
Payment of unauthorized advances	<ul style="list-style-type: none"> ■ Out of the total advance of Rs 50.81 crore paid to the Land Acquisition Officers (LAOs) in respect of RBC of RIP, UIIP and Telengiri Irrigation Project between April 1998 and March 2008 for payment of land acquisition charges and rehabilitation assistance, the LAO did not furnish accounts for Rs 31.91 crore as of March 2008. ■ The EE, Right Canal Division No.III of UIIP paid (March 2008) Rs 1.90 crore to the NH Division, Kesinga for construction of a bridge at RD 10 km of right extension canal, without any estimate. No work was commenced by the NH Division as of May 2008. ■ The EE of MI Division, Rayagada, paid (March/June 2008) Rs 0.45 crore to LAO, Rayagada for payment of land compensation of three MIPs (Laxmipur, Randikona and Karanjanullah) without sanction of estimate to avoid lapse of allotment and letter of credit.
Diversion of funds	<ul style="list-style-type: none"> ■ Two EEs of Upper Indravati Project diverted Rs 6.91 crore available under AIBP towards execution of flood damage repair works. One EE of Boudh Irrigation Division of Salki Irrigation Project incurred an expenditure of Rs 1.01 crore towards construction of the road and purchase of shutters. These works were beyond the scope of the works sanctioned under AIBP. ■ EEs of two MI Divisions diverted Rs 99.07 lakh to projects not covered under AIBP and Rs 47.60 lakh towards purchase of material not required for immediate use in the work.

10.19.6 Monitoring and Evaluation

- The State level monitoring committee was formed only in June 2005, 9 years after the AIBP was launched. The committee was to meet quarterly and visit each project at least twice a year. The committee after its constitution met only once. The committee had also never visited any project nor was any sub-committee constituted for the purpose.
- No monitoring committee was constituted at the project level.





PUNJAB



LEGEND	
Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Medium Irrigation Projects	●

Note: The Co-ordinates of Remodelling of UBDC, Kandi Canal Extension (PH. II) and Rehabilitation of 1st Patiala Feeder and Kotla Branch were not provided by the CWC.



10.20.1 Background

Five Medium Irrigation Projects were taken up under AIBP during 1999-2008 in Punjab. During 2002-08, GoI released Rs.175.14 crore as central assistance, and the State Government contributed Rs.190.43 crore as its share. The State Government reported an expenditure of Rs. 357.37 crore as of March 2008. Three Projects, namely Kandi Canal Extension Stage-II, Remodeling of U.B.D.C.²⁷ System, and Rehabilitation of 1st Patiala Feeder and Kotla Branch, were selected for detailed audit scrutiny.

10.20.2 Overall Status of Reported Completion of Projects

Out of the five medium projects taken up under AIBP, only one Project, namely Remodelling of UBDC System, which was sanctioned in April 1999, was reported as completed. Three Projects sanctioned in 1999-2000 and one project sanctioned in 2006-07 were still incomplete as of March 2008.

10.20.3 Status of Completion of Test-Checked Projects

- The State Government declared the Project "Remodeling of UBDC System" as completed and furnished a completion certificate in September 2006. Audit scrutiny, however, revealed that some works like providing gates and gearing system on various canal distributaries/ water regulators/ cross regulators were still incomplete as of August 2008. A perusal of the photographs printed in the Monitoring Report of November 2006 (issued in April 2007), revealed that works like construction of Cross Regulator cum foot bridge with fall at RD 12750, old structures obstructing the flow of water at RD 195000 of Kasur Branch Lower (KBL) and construction of KBL Tail/escape at RD 30680 were still ongoing. The facts were also confirmed during field visits made by the audit party in October 2008 indicating that no gates and gearing system were installed at KBL RD 168.400 km and Sabraon branch RD 127.250 km.
- Audit scrutiny of the Project for Remodeling of Channels of UBDC System revealed that 39 Village Road Bridges, and bridges-cum-falls which were required to be remodeled at an estimated cost of Rs. 3.34 crore were not taken up by the division purportedly because these were low priority items. The provision of Rs. 3.34 crore was spent on other works like maintenance of channels etc.
- Kandi Canal Stage-II was taken up under AIBP in 2002-03 as a Fast Track Project (FTP) targeted to be completed by March 2008. However, the project was still incomplete as of August 2008. The main canal up to 112 Kms was completed in March 2008, but the construction of ten distributaries had not been taken up as of August 2008 due to non-acquisition of land. Further, due to defective designing, a canal siphon constructed at a cost of Rs. 278 lakh was completely damaged.

²⁷ Upper Bari Doab Canal

Chapter - 10State
Specific
Findings**Punjab****10.20.4 Financial management**

Audit scrutiny revealed the following irregularities in financial management:

Table S32 - Irregularities in Financial Management of AIBP Projects in Punjab

Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> In 6 divisions, during August and September 2008, security deposits amounting to Rs.80.90 lakh deducted from the bills of 63 contractors were released before the expiry of the stipulated period of 6 months from the date of completion of work.
Parking of funds	<ul style="list-style-type: none"> Six Executive Engineers and L.A.O. Hoshiarpur had parked funds to the tune of Rs.10.62 crore in 52 Bank Accounts between April 2003 and August 2006 Out of Rs.30 crore meant for the Project "Rehabilitation of 1st Patiala feeder", Rs.4.50 crore was diverted to other projects.
Unauthorised expenditure	<ul style="list-style-type: none"> Expenditure of Rs.5.67 crore was incurred on unapproved works in the Project "Remodelling of UBDC system"

10.20.5 Environmental Issues

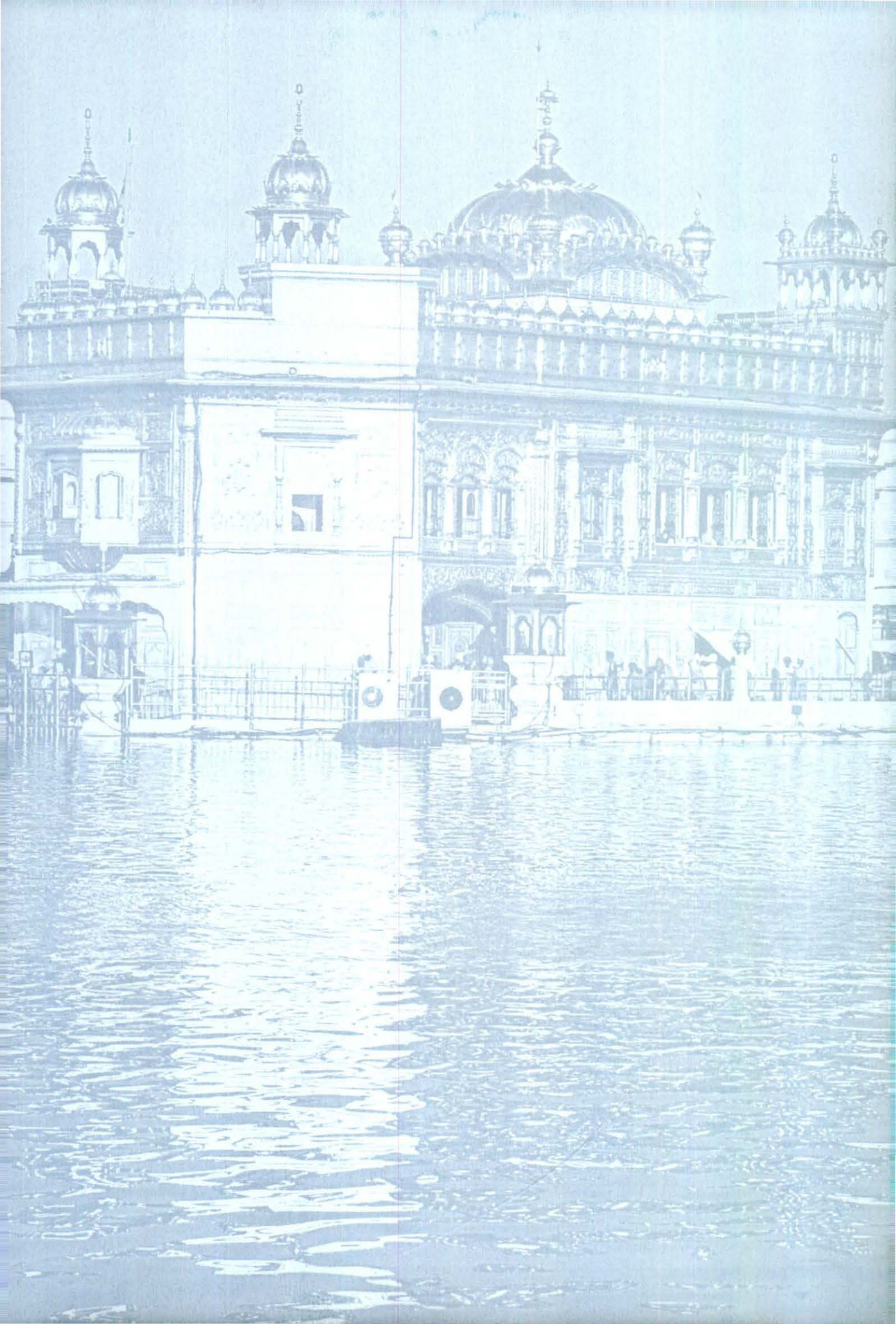
- Polluted water and untreated discharge of industry was being discharged into the Chheratta Distributary of UBDC. During field visits and interaction with the beneficiaries it was observed that due to discharge of sewer in the Chheratta distributary, 10719 acres of land was being affected, resulting in damage/loss to crops and animals.



Discharge of Sullage/Polluted water at RD 58500 metre of Chheharata Distributary of Upper Bari Doab Canal (UBDC)

10.20.6 Monitoring and Evaluation

The implementation of the Programme was not properly monitored by the Department except by way of holding review meetings and obtaining monthly progress reports. None of the divisions test checked in Performance audit had maintained any monitoring data.



RAJASTHAN



LEGEND	
Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●

Note: The Co-ordinates of Modernisation of Gang Canal, IGNP Stage - II, Narmada Canal and Mahi Bajaj Sagar were not provided by the CWC.



10.21.1 Background

During 1996-2001, GoI approved 10 Major/Medium Irrigation projects in Rajasthan. During 2003-08, GoI assistance was Rs 1258.56 crore and cumulative reported expenditure (including state share) till March 2008 was Rs 3175.85 crore. Four Major Projects, namely, Indira Gandhi Nahar Pariyojana (IGNP) Stage-II, Gang Canal (modernisation) Project, Mahi Bajajsagar Project, and Narmada Canal Project were selected for detailed audit scrutiny.

10.21.2 Overall status of Reported Completion of Projects

Out of the 10 Major/Medium Irrigation projects, all projects, except IGNP Stage-II and Narmada Canal Project, were reportedly complete.

10.21.3 Status of Completion of Test-Checked Projects

- Two of the four major projects (Gang Canal Modernisation and Mahi Bajaj Sagar) declared completed by the government, were actually found to be incomplete during audit. The work of Narmada Canal Project, Mahi Bajaj Sagar Project (Unit-II), and Gang Canal System were badly delayed, resulting in time over run of 3 to 5 years with consequent cost overrun of Rs 666.71 crore. This was reportedly due to increase in rate of land compensation, non-completion of canal works due to inadequate budget allotment, slow tender process, delay in land acquisition/clearance of forest land and mismanagement in planning.
- The IGNP Stage-II, Mahi Bajaj Sagar, and Narmada Canal were major projects and not completed till March 2008. Considering the paucity of funds with the State Government and availability of CCA in flow area, the department should have taken up the work in a phased manner – the flow system first so that partial benefit could have been derived, and the lift system thereafter. However, the department executed works of flow and lift together on IGNP Stage II and Narmada Canal Projects. As a result, both the systems were incomplete and the required potential could not be created. Further, though canal works (branches, minors etc.) were completed in IGNP Stage II, the Command Area Development (CAD) authorities could not complete the work of water courses; thus, adversely affecting the utilization of created IP.

Chapter - 10State
Specific
Findings**Rajasthan**

- Bhikha Bhai Sagwara Canal (BBSC) with Nithauwa distributary for Mahi Bajajsagar Project was cleared (June 2002) by CWC. However, the sanction for diversion of forest land for Nithauwa distributary was received only in March 2007. The works of Nithauwa distributary from 0 to 2.50 km and 6.48 to 21.54 km and nine minors were completed between March 2005 and March 2006, but the work in the reaches from 2.50 to 6.48 km was not taken up as the approval for use of forest land in this reach was delayed. The water did not reach the downstream portion of Nithauwa distributary beyond 2.50 kms. Consequently, an area of 3,445 ha did not receive the benefits of the canal, and nine minors of reaches 6.48 to 21.54 km remained unfruitful as of March 2008. Even then, the project was declared as completed, and the project completion report was irregularly issued in August 2007.

10.21.3.1 Non-utilisation of created potential

Audit scrutiny revealed that 662 (543 in flow area and 119 in lift area) diggis (open shallow water tanks) were constructed, but only 60 Water User Associations (WUAs) were formed as of March 2008. Further, not a single WUA had taken power connection for the diggi. Hence, the IP of 88,090 ha created during 2006-08 could not be utilised. Further, the mechanism for recovery of irrigation water charges by WUAs for carrying out maintenance and its sharing with the State Government was not decided by the State Government, as of March 2008.



Narmada Canal Project – Electrified diggi but power connection not taken by WUA

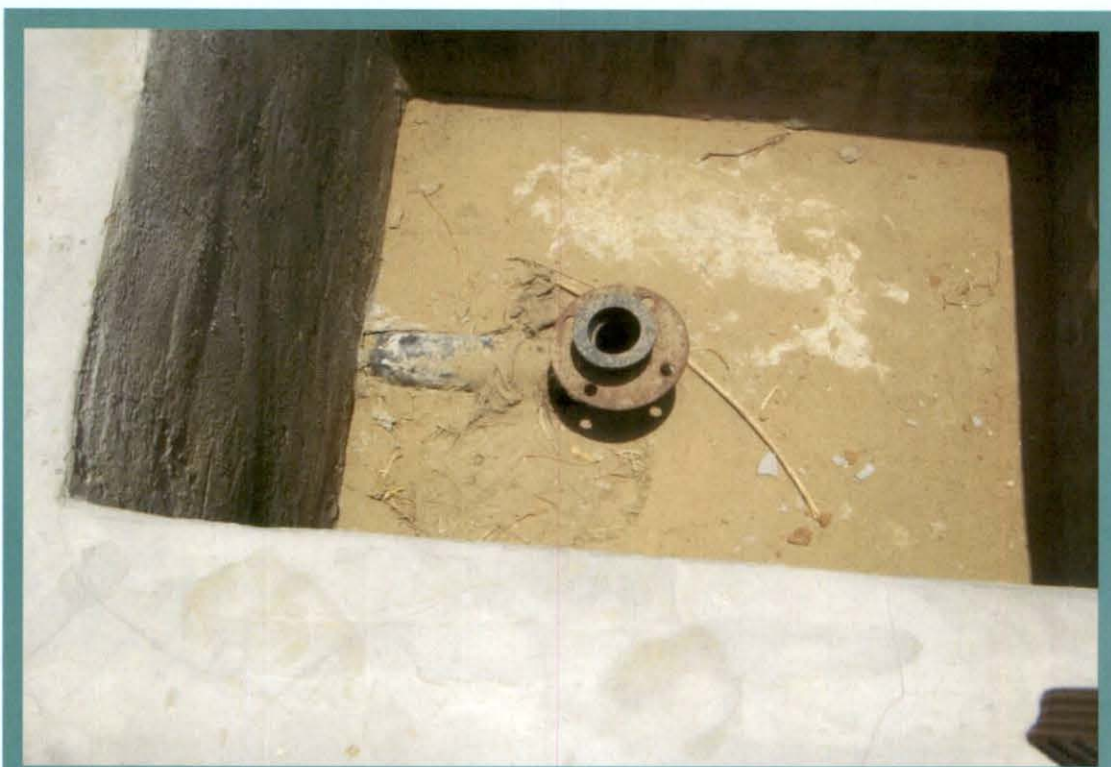
Chapter - 10

State
Specific
Findings

Rajasthan



Narmada Canal Project – Incomplete work in the Inlet of Diggi No.5 Basan Minor at tail 3.701 km – Vank Distributary



Narmada Canal Project – Incomplete work in the Inlet of Diggi No.5 Basan Minor at tail 3.701 km – Vank Distributary

Chapter - 10

State
Specific
Findings

Rajasthan



Narmada Canal Project – Incomplete work in the Inlet of Diggi No.5 Basan Minor at tail 3.701 km – Vank Distributary

10.21.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S33 - Irregularities in Financial Management of AIBP Projects in Rajasthan

Nature of Irregularity	Details
<p>Undue benefits to contractors</p>	<ul style="list-style-type: none"> ■ In the four test checked projects, non-recovery of compensation due to non-completion of the works within the stipulated time and making payment for a work which was to be constructed by the contractor, resulted in undue favour to contractors to the tune of Rs.5.43 crore.
<p>Diversion of funds</p>	<ul style="list-style-type: none"> ■ In Narmada Canal Project, a payment of Rs 143.13 crore was made to Jodhpur Vidyut Vitran Nigam Limited (JVVNL) for 33/11 Kilowatt power line/sub-station and the expenditure was booked irregularly under AIBP, though there was no provision for such expenditure. ■ A payment of Rs 28.52 crore was made to the contractors during 2006-08 for the cost of sprinkler system, high density polyethylene (HDPE) pipelines, pump houses, sumps, motors, pumps etc., and irregularly charged to AIBP funds, though the entire cost of such works was to be borne by the WUAs', as per the project report. ■ In IGNP Stage-II Project, an expenditure of Rs 9.58 crore incurred during 2003-06 on maintenance and repair works was charged to the project. ■ In Gang Canal Modernisation project, Rs. 0.53 crore of AIBP funds were irregularly used for court deposits for making payment to eight contractors for works executed prior to inclusion of the Gang Canal Project under AIBP. ■ Rs 0.49 crore was spent on rehabilitation works taken up under World Bank funded "Rajasthan Water Sector Restructuring Project (RWSRP)" during 2003-07 and was irregularly booked under the AIBP component of Gang Canal Project.



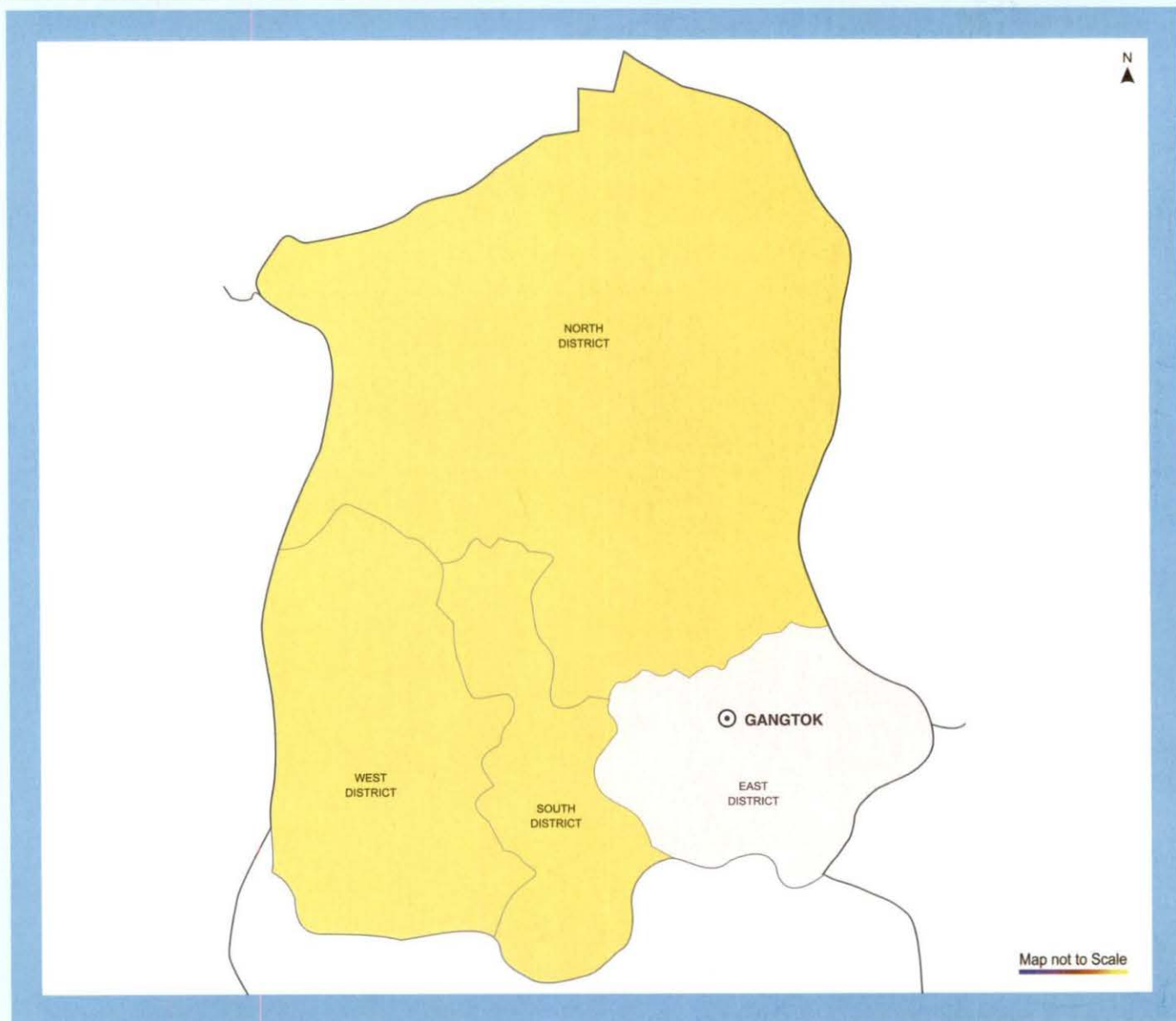
Nature of Irregularity	Details
Misutilisation / irregular expenditure	<ul style="list-style-type: none"> ■ In IGNP Stage-II Project, Rs.6.40 crore was irregularly spent on construction of Cross Drainage (CD) works and charged to the project cost, though there were no provisions of CD works in the Revised Project Estimate of the Project. ■ In Narmada Canal Project, Rs.5.39 crore was drawn towards payment of land compensation (Rs. 4 crore without sanction of collector and Rs. 1.39 crore without disbursement to the land owners) during 2004-08 and booked under the Project to avoid lapse of funds. ■ In IGNP Stage-II Project, the work of construction of drains was taken up and then abandoned on technical grounds after execution of half of the estimated quantity and incurring an expenditure of Rs 1.16 crore, despite the observations of SE, Vigilance that there was no justification for constructing the surface drains. ■ In Gang Canal Modernisation project, an expenditure of Rs 0.98 crore was incurred on raising of unlined portions of the canal, as the lining work was executed without proper planning.

10.21.5 Monitoring and Evaluation

In the Narmada Canal Project, a Task Force Committee was formed. Six meetings were held between June 2006 and May 2007, but thereafter no meeting was held.



SIKKIM



LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Coverage of Minor Irrigation Projects	■



10.22.1 Background

During 1999-2008, GoI sanctioned 370 MI schemes with 6400 ha of irrigation potential in Sikkim. During 2003-08, the State received Rs.8.97 crore as central assistance and contributed Rs.1.59 crore as its share. Out of the total available funds of Rs. 11.80 crore, the reported expenditure during 2003-08 was Rs.8.23 crore. 65 schemes implemented during 2003-08 were selected for detailed audit scrutiny.

10.22.2 Overall reported status of completion of projects

Out of 370 MI Projects sanctioned under AIBP during 1999-2000 and 2007-08, all the projects, except one ongoing project, had been declared as completed as of March 2008.

10.22.3 Status of Completion of Test-Checked Projects

10.22.3.1 Defunct MI Projects

Out of 26 MI Projects (out of the test-checked 65 MI projects) physically verified, 6 MI Projects constructed at a total cost of Rs. 16.75 lakh to cover 86.07 hectares of land were defunct due to landslides and leakage of water near the sources which was selected in a sinking area. In Jugdum Khola, Lower Labing, Kajanikulo and Khanikhola to Pradhangaon MI Channels, the farmers had to collect water from small brooks nearby.

10.22.3.2 Supply of polluted water

In two schemes, Sokeythang MI Channel and Chalisay Army Camp to Bagey Genopang Khet, polluted water was supplied through completed channels due to mixing of drain water.



MI Project at Khanikhola to Pradhangaon – Defunct MI Channel

Chapter - 10

State
Specific
Findings

Sikkim



MI Project at Ramathang – Poor condition of the MI channel due to non-maintenance



MI Project Damala Gaon – Non-visible channel due to non-maintenance



Sokethang MI Project at Lower Lingding – polluted water in the channel

10.22.3.3 Non-availability of water for irrigation during lean period

During interviews with beneficiaries of 11 schemes out of 26 physically verified schemes, the beneficiaries stated that the irrigation channels remained dry during the winter seasons, at a time when more water was required for irrigation.



10.22.3.4 Creation and utilisation of Irrigation Potential

Against the targeted potential of 2741.78 hectares till 2007-08 in respect of 242 schemes, the IP created was 2,095.49 hectares. The claimed IP utilization had increased from 85 per cent during 2003-04 to 95 per cent during 2007-08. However, the Department failed to produce any document in support of the claimed utilization. Further, although there was a moderate increase in yield per hectare, there was almost no impact on coverage of agricultural area even after spending an aggregated amount of Rs.14.26 crore under AIBP during 1999-00 to 2007-08.

10.22.4 Planning and Approval of Projects

- **Survey and Investigation:** In all the 65 schemes test checked in audit, there was no recorded evidence of survey and investigation having been conducted.
- **Improper assessment of BC Ratio:** The Department failed to produce DPRs for any of the projects. However, in some of the individual implementation files where copies of the BCR analysis were available, it was seen that one component i.e. benefit due to reduced cost of farming (on time saved by farmers for irrigating the fields), which was not included in the CWC guidelines, was taken into consideration for calculation, which resulted in overstatement of the BCR.
- **Non formation of Water User Groups:** Neither had any water user group (WUG) been formed, nor had the constructed channels been handed over to the local Panchayats for upkeep and maintenance.

10.22.5 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S34 - Irregularities in Financial Management of AIBP Projects in Sikkim

Nature of Irregularity	Details
Short-release of funds	<ul style="list-style-type: none"> ■ Against the receipt of Rs. 8.15 crore from GOI towards Central assistance for 2003-08 under AIBP schemes, the State Government did not provide the matching share which resulted in short release of State share of Rs 0.61 crore. Delay in release of funds by the state government could not be ascertained, due to non maintenance of related records.
Diversion of funds	<ul style="list-style-type: none"> ■ Funds amounting to Rs. 0.25 crore were diverted towards payment of salaries of work-charged employees, purchase of stock materials from AIBP fund and supplied to works other than AIBP, and debris clearance which was not permitted under AIBP.

10.22.6 Monitoring and evaluation

No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.

TRIPURA



Map not to Scale

LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Medium Irrigation Projects	●



10.23.1 Background

Gol approved three medium irrigation projects - Gumti Irrigation Project, Khowai Irrigation Project and Manu Irrigation Project – and 1241 MI projects during 1996-2008. During 2003-08, the Gol released assistance of Rs. 100.38 crore and the State Government released Rs. 46.56 crore as its share and Rs. 10.65 crore as advance release of Central share. Out of the total available funds of Rs. 169.53 crore (including opening balance of Rs. 11.94 crore), the reported expenditure during 2003-08 was Rs. 170.29 crore. One medium project, namely Khowai Irrigation Project, and 25 MI Projects were selected for detailed audit scrutiny.

10.23.2 Overall Status of Reported Completion of Projects

Despite being taken up in 1996-97, none of the three ongoing medium irrigation projects were completed as of March 2008. Out of 1439 MI Projects sanctioned during 1999-2008:

- 202 Projects were abandoned, after incurring an expenditure of Rs. 3.72 crore.
- 1112 Projects were reportedly completed, out of which eight schemes were not functioning as of November 2008 reportedly due to dispute on engagement of operator by Gram Panchayat (GP), non-availability of water due to storage at upstream, frequent stealing of pump motor, and shifts of river course on Bangladesh side.
- 125 Projects were in progress as of March 2008.

10.23.3 Status of Completion of Test-Checked Projects

- In Khowai Medium Irrigation Project, only the canal systems were to be implemented under AIBP. Audit scrutiny revealed that even after spending Rs.75.23 crore (98 per cent of the revised cost) the department could construct only 25.684 km of main canal out of the targeted 31.094 km. Further, only 1.351 km of branch canals out of the targeted 26.682 km could be constructed. Resultantly, only 1453 ha (32.18 per cent) of the targeted irrigation potential of 4515 ha could be created during 1996-2009 (November 2008). The tardy progress was attributed to delay in land acquisition and surrender of physical possession by the land owners, insurgency problems, shortage of skilled labourers etc.
- Out of the 25 sampled MI Projects, 10 Projects were declared as completed, out of which in six projects, the shortfall in creation of the targeted IP ranged from 9 per cent to 57 per cent. Thus even after completion of the projects, the MI Projects were not delivering the targeted benefits.

Chapter - 10State
Specific
Findings**Tripura**

- In Lift Irrigation scheme (LIS) at North Dabbari, though the work of laying and distribution of pipe lines had not commenced, it was reported as completed in November 2008. Further, in the LI scheme at Rabindranagar, though the work began in March 2004, the process of land acquisition started after 21 months and the department incorrectly assessed land requirement at 2.6 acre, instead of the actual requirement of 95.48 acre.
- In 24 out of 25 test-checked MI Projects, there was no evidence of any survey and investigation having been conducted. Further, the BC Ratio was assessed only in cases of two projects.

10.23.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S35 - Irregularities in Financial Management of AIBP Projects in Tripura

Nature of Irregularity	Details
Delays in release of Gol funds	<ul style="list-style-type: none"> ■ During 2003-07, the Gol funds were released by the State Government, after delays ranging from 11 to 130 days.
Diversion of funds	<ul style="list-style-type: none"> ■ Funds amounting to Rs. 0.82 crore were diverted in four test checked divisions (Water Resource Division-I, II, III and IV) for flood protection and maintenance works of different Deep Tube Wells (DTW) and Lift Irrigation (LI) Schemes. ■ Funds amounting to Rs. 0.12 crore were diverted for payment of electricity consumption bills of different running Lift Irrigation schemes in Water Resource Division-I.

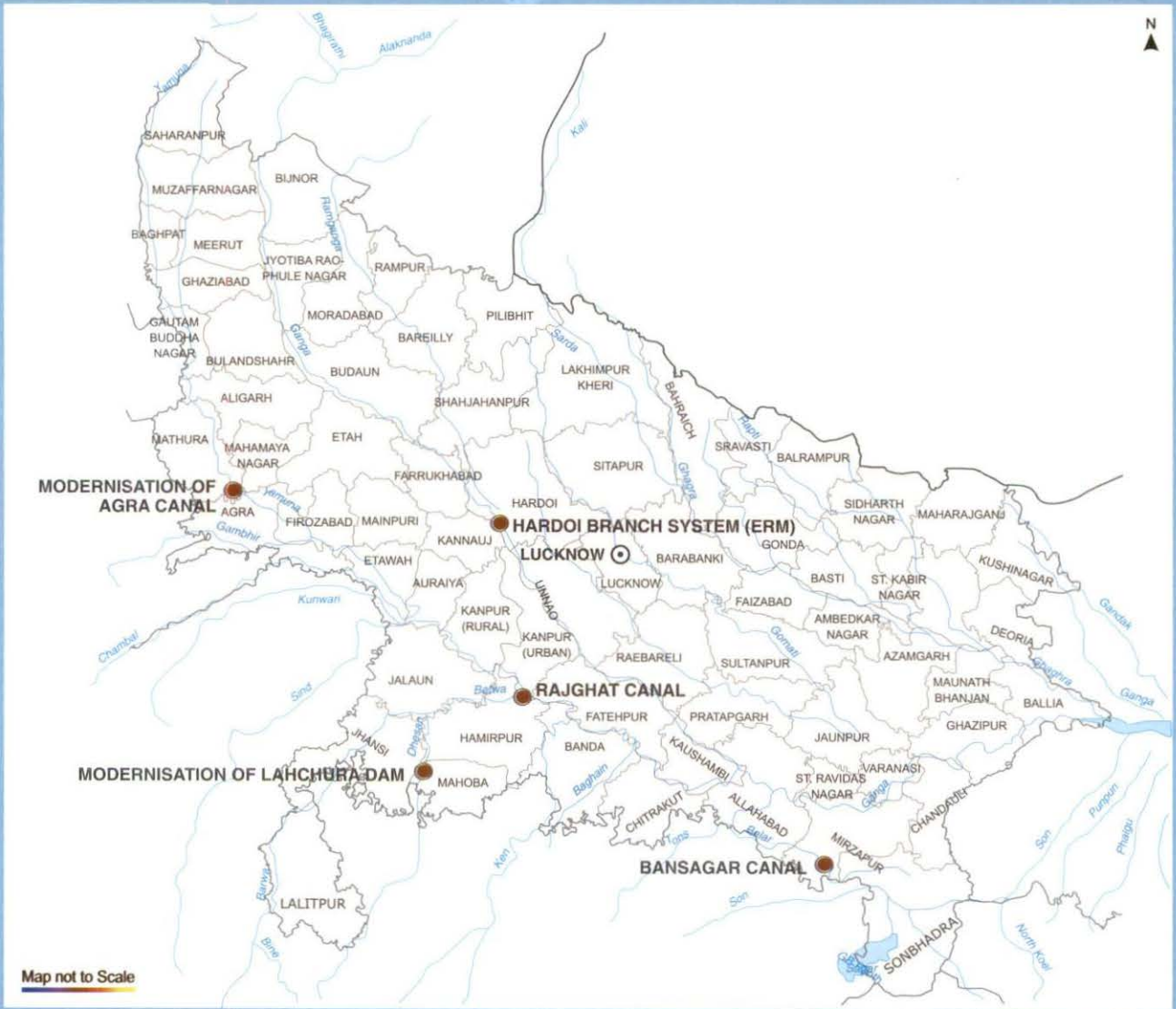
10.23.5 Monitoring and Evaluation

In the test-checked MI schemes, no independent agency had been engaged for monitoring of the schemes.





UTTAR PRADESH



Map not to Scale

LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●

Note: The Co-ordinates of Modernisation of Agra Canal, Hardoi Branch System (ERM), Bansagar Canal and Rajghat Canal were not provided by the CWC.



10.24.1 Background

During 1996-2008, GoI sanctioned 14 major irrigation Projects. During 2003-08, GoI released Rs 3117.79 crore of central assistance and the State Government contributed Rs.2006.84 crore as its share; the total reported expenditure was Rs. 2798.64 crore. Five projects, Modernisation of Agra Canal, Modernisation of Lahchura Dam, Improving Irrigation intensity of Hardoi Branch System, Bansagar Canal and Rajghat Canal, were selected for detailed audit scrutiny.

10.24.2 Overall Status of Reported Completion of Projects

Of the 14 major projects, only five projects had been reportedly completed (Upper Ganga & Madhya Ganga, Kharif Channel in H K Doab, Rajghat Canal, Modernisation Of Agra Canal, and Jarauli Pump Canal).

10.24.3 Status of Completion of Test-Checked Projects

Audit scrutiny revealed that all the five test-checked Projects were ongoing, although two projects - Agra Canal Project and Rajghat Canal Project were declared completed. Further audit scrutiny revealed the following:

- Although the Modernisation of Agra Canal Project was declared completed, three bridges at Palwal, Chhajunagar and Lilwari were incomplete and old bridges were not dismantled, which led to silting and growth of weeds in the canal section. The reported utilization of the created IP in the project was 77 per cent. During field visit to Agra Canal, supply of polluted water was found between Km 2.355 to Km 7.100 of Agra Canal. There were six open sewage drains and six Hume pipes sewage drains which were polluting the canal water.
- The Rajghat Canal Project was declared completed, although nine MoUs of Rs 8.67 crore out of twenty MoUs signed with Uttar Pradesh Power Corporation Limited (UPPCL) were still to be finalized, while three MoUs had been rescinded without completing the work. Out of eight rail crossings proposed to be constructed on the canal at a cost of Rs 8.95 crore during 1995-04, only four could be completed, including one defective canal crossing. Further, a proposal of Rs. 56.07 crore was made for the remaining works even after declaring the project as completed.
- In Bansagar Canal Project, the construction work of canal was stopped midway in Adwa Meja Link Channel (AMLC) as clearance for forest land was not obtained due to opposition by the affected villagers, although a sum of Rs 86.29 crore was deposited with forest department for their rehabilitation. Further, in the Meja-Jirgo Link Channel (MJLC), excavation work between chainage Km 40.700 to 43.300 was stalled due to sprouting up of water.

Chapter - 10

State
Specific
Findings

**Uttar
Pradesh**



- The works of Hardoi Branch System project were commenced in an unplanned way as the restoration works in branches lying in lower reaches were started earlier than those lying upstream, which resulted in formation of earth mound and silting in the canal system. An additional expenditure of Rs74.61 lakh was incurred to remove the same.
- In three test-checked projects (Agra Canal Project, Rajghat Canal Project and Bansagar Canal Project), cost overrun varied from 119 per cent to 501 per cent of the original cost, and the time overrun ranged from 70 months to 165 months.



Agra canal project

Chapter - 10

State
Specific
Findings

**Uttar
Pradesh**



Agra Canal Project



Rajghat Canal Project – Incomplete canal crossing bridges of NH-26 at Asaupur Minor



Rajghat Canal Project

Chapter - 10

State
Specific
Findings

**Uttar
Pradesh**



Bansagar Canal Project



Improvement of Irrigation Intensity of Hardoi Branch System



10.24.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S36 - Irregularities in Financial Management of AIBP Projects in Uttar Pradesh

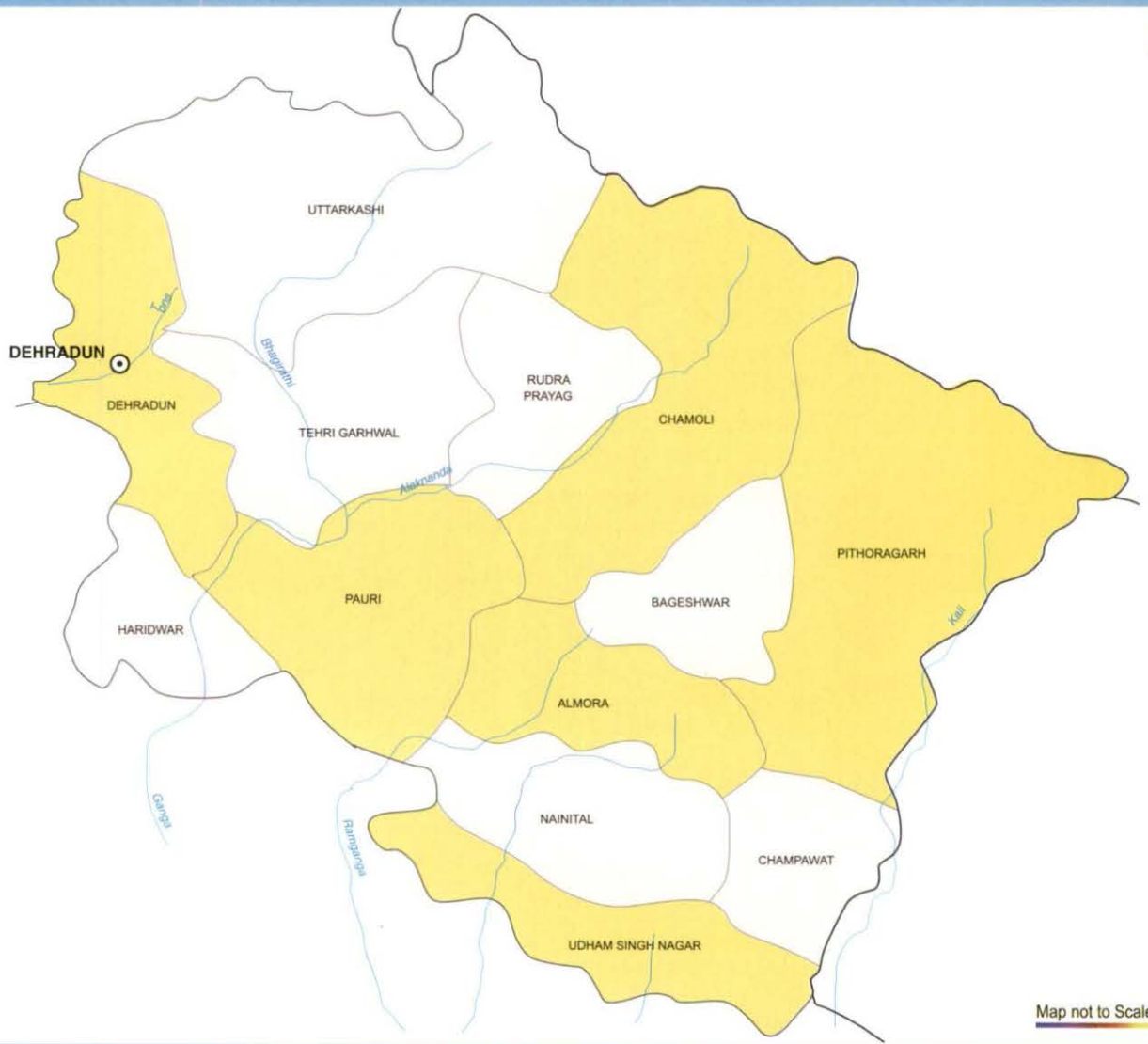
Nature of Irregularity	Details
Undue benefits to contractors	<ul style="list-style-type: none"> Under Improvement of Irrigation Intensity of Hardoi Branch, payment of Rs 59.50 lakh was made on excavation of earth, for which work payment was previously made in Unnao Branch.
Diversion of funds	<ul style="list-style-type: none"> During 2003-08, Engineer-in-Chief (E-in-C) allotted Rs 1225.91 crore for further allotment to executing field offices. The Chief Engineers (CEs), however, allotted only Rs 1216.91 crore to the executing divisions. The balance of Rs 9.00 crore was diverted at the level of Engineer-in-Chief / Chief Engineer. An amount of Rs 4.71 crore (CE, Bansagar Canal Project: Rs 4.56 crore and CE Ganga: Rs 0.15 crore) was diverted to CE, Sarda Sahayak during 2004-07 under the instructions issued by Engineer-in-Chief (E-in-C) to allot 0.5 per cent of the project cost from the State share to meet the expenditures of E-in-C office. In Bansagar Canal project, Rs.0.81 crore was diverted to E-in-C office to bear the expenditure of Computer Centre and its staff in E-in-C's office. In Bansagar Canal Construction Division-I, Rs.0.33 crore was diverted for payment of bills not related to the division. In Irrigation Works Circle-III, Agra, AIBP funds to the tune of Rs.15.80 crore were diverted and utilized on works not sanctioned under the project.
Unauthorised /Irregular expenditure	<ul style="list-style-type: none"> In the Modernization of Agra Canal project, the department paid Rs. 9.41 crore to Uttar Pradesh Rajkiya Nirman Nigam for renovation of the Yamunotri Guest House, Annexe building, Old Inspection House and eight type-III buildings at Okhla, New Delhi, although these works were not approved by CWC/ MoWR. Besides, the division also debited Rs.6.39 crore to the project for various works carried out in the above premises during the year 2006-07. In Bansagar canal project, four MoUs of National Project Construction Corporation (NPCC) were rescinded but penalty of Rs 3.73 crore was not recovered. Besides, Rs 83.65 lakh of Income tax was also not deducted, before making payment to NPCC. In Rajghat Canal Project, excess payment of Rs 0.86 crore made to the Railway Department was not recovered. In Lahchura Dam Project, EE Mahoba Dam Construction Division-I, advance payments of Rs. 14.55 crore were made between March 2003 and March 2008 and irregularly charged to the projects, instead of the Miscellaneous Public Works Advances account head against individual officers for watching recovery and eventual adjustment.

10.24.5 Monitoring and Evaluation

- A State level monitoring committee had been constituted. It was, however, found in audit that as against the ten meetings required to be held as of March 2008, only three meetings were held.
- Monthly meetings were carried out at the project level but any reference regarding sending the meeting-reports to State level committee was not found.

UTTARAKHAND

N
▲



Map not to Scale

LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Coverage of Minor Irrigation Projects	■



10.25.1 Background

During 1999-2008, GoI sanctioned 1931 MI projects in the State. During 2003-08, the GoI released Rs.520.54 crore as central assistance, and the State Government contributed Rs.116.93 crore as State share. Out of the available funds of Rs.637.47 crore, the reported expenditure, as of March 2008, was Rs.636.13 crore. Out of 1738 MI Projects taken up during 2003-08, 30 MI Projects were selected for detailed audit scrutiny.

10.25.2 Overall Status of Reported Completion of Projects

Out of the 1931 MI Projects taken up during 1999-2008, as of March 2008:

- 961 Projects were completed, 905 Projects were ongoing, and 65 Projects could not be started.
- 193 MI projects and 229 MI projects sanctioned during 2002-03 and 2005-06 respectively, were still ongoing as of March 2008.
- Out of the 65 Projects which could not be started as of March 2008, 64 MI Projects were those which were sanctioned in 2005-06.

10.25.3 Status of Completion of Test-Checked Projects

Out of the 30 test-checked projects, 21 projects were complete, while nine projects²⁸ were incomplete. Physical verification by audit of 30 selected schemes involving 80 sub-schemes, further, revealed that:

- 11 sub-schemes (14 per cent) lacked command area as the guls/ water canals were constructed midway between the water source and command area, and did not reach the fields.
- 19 sub-schemes (24 per cent) were lying defunct, and 23 sub-schemes (29 per cent) were damaged.
- 7 sub-schemes (9 per cent) were without any water or some had in-sufficient source of water, and in 14 sub-schemes (18 per cent), there were seepages leading to less amount of water in the canals.

Resultantly, beneficiaries/ farmers reported that they were not getting water for irrigation.

²⁸ Bangouthi, Construction of 35 km. field gul lining in block Dugadda, Construction of 5.753 km. long lining of channel & gul in Kanalichhina block, Construction of Baank canal in Deval Block ,Degot, Devaria, Hartad-Santad, Kheti (E.R.M) and Lining and field Gul construction in Bhaisiachhana, Almora

Chapter - 10

State
Specific
Findings

Uttarakhand



The constructed portion of the gul was neither connected to the permanent water source nor to the command area.

Gada Rahiya Gul (Kawakhera MI Project)

The gul was not functional as the head of the gul was damaged in a 3 metre stretch since commissioning of the scheme, and the whole of the command area remained unirrigated.



Bheeda gul (Gawani MI Project)



The gul was not functional as the head of the gul was damaged in a 3 metre stretch since commissioning of the scheme.

Nayaal_Ganaikuna Gul (Nayaal MI Project)

Chapter - 10

State
Specific
Findings

Uttarakhand



Water was not flowing in due to seepage, debris, weed growth, structural erosion etc.

The beneficiaries reported to audit that due to cracks, damage & seepage, they were not getting sufficient benefits.



Laduda Gul (Jaicholi MI Project)

10.25.4 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S37 - Irregularities in Financial Management of AIBP Projects in Uttarakhand

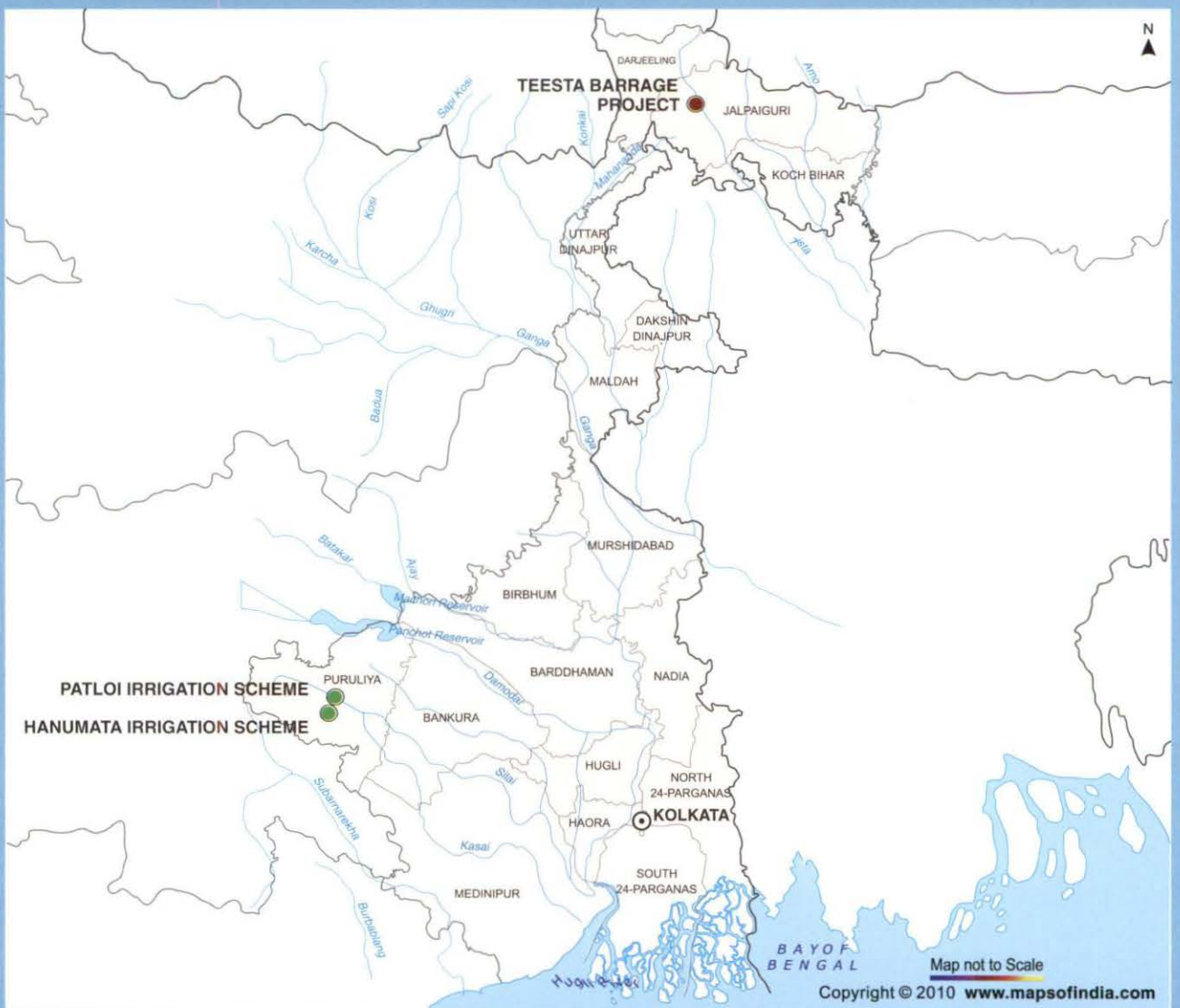
Nature of Irregularity	Details
Delayed release of funds	<ul style="list-style-type: none"> During 2003-08, there were delays ranging from 35 days to 57 days in release of funds by the State Government to the implementing agencies.

10.25.5 Monitoring and Evaluation

No monitoring committee was formed either at the State or project level. Further, the CWC had not carried out any monitoring and evaluation of the completed projects during 2003-08.



WEST BENGAL



LEGEND

Intl. Boundary	—
State Boundary	—
District Boundary	—
State Capital	⊙
Major Irrigation Projects	●
Medium Irrigation Projects	●



10.26.1 Background

During 1996-2008, GoI sanctioned four major and three medium projects, while 32 minor irrigation schemes were sanctioned in 2007-08. During 2003-08, GoI released assistance of Rs. 32.26 crore and the State share was Rs. 34.49 crore, against which the reported expenditure was Rs. 78.40 crore. One major, two medium and 8 MI projects were selected for detailed audit scrutiny.

10.26.2 Overall Status of Reported Completion of Projects

Of the seven major/medium projects,

- One major project, the Subarnarekha Barrage Project, had been abandoned, and three projects – 1 major (Teesta Barrage Project) and 2 medium (Patloi Irrigation scheme and Tatko Irrigation scheme) were ongoing.
- Three projects – 2 major (Kangsabati Reservoir Project and Modernisation of Barrage and Irrigation of Damodar Valley Corporation) and 1 medium (Hanumata Irrigation scheme) were reportedly complete as of March 2008.
- In case of MIs, despite the availability of sufficient funds (Rs 10.14 crore) during 2007-08, only Rs.0.60 crore was released to the divisions and no work, except for procurement of materials of Rs 0.52 crore for five MI projects, could be started as of March 2008. No work had been started on the remaining 27 MI projects.

10.26.3 Status of Completion of Test-Checked Projects

10.26.3.1 Teesta Barrage Project (TBP)

- The project which was started in 1976, and brought under AIBP in 1996-97, was still incomplete as of March 2008, with a time overrun of 18 years and cost overrun of Rs. 1110 crore. Despite the expenditure of Rs 1179.66 crore, only 30 per cent physical progress had been achieved, while the cost estimates had been revised to Rs 2979 crore, as of March 2008. The target date had been revised to 2012.
- Out of total five main canals of the TBP, only two (Teesta Mahananda Link Canal - TMLC and Mahananda Main Canal - MMC) were completed. Operations of head regulator gates of another canal- Teesta Jaldhaka Main Canal (TJMC) had not yet been started as of March 2008. Out of 35 distributaries of the completed canals, 14 were complete, while 21 were still incomplete mainly due to disputes of land acquisition.

Chapter - 10

State
Specific
Findings

West
Bengal



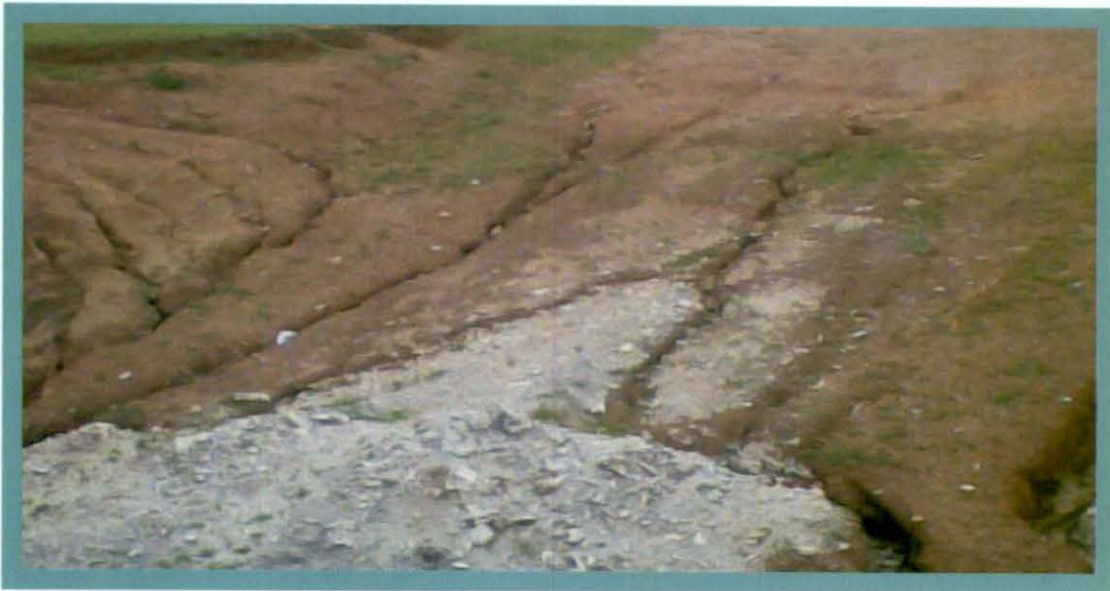
- The department started the project in 1976 without obtaining any environment & forest clearances. In September 1994, the Ministry of Environment and Forest (MoEF) gave clearances subject to various conditions, none of which had, however, been fulfilled as of August 2008.



Dauk Nagar Main Canal of TBP at Ch. 63.585 where no trace of canal water was observed due to land dispute in Uttar Dinajpur District

10.26.3.2 Patloi Irrigation Scheme (PIS)

- The Project, which was started in the mid-seventies with an estimated cost of Rs 0.90 crore, was revised to Rs 9.41 crore as of 1998. Despite expenditure of Rs 8.89 crore and physical achievement ranging from 56 to 60 per cent, the project was still incomplete and against the ultimate target of 2158 ha, only 270 ha of IP was reportedly created, of which 70 ha was reportedly utilized. There were gaps in the main canals and the component parts of the spillway gate were in deplorable condition.
- Construction of a siphon at chainage 130.45 km of Left Bank Main Canal (LBMC) and canal construction from chainage 0.00 to 65.00 km of Right Bank Main Canal (RBMC) was still in progress.
- Water for irrigation in AIBP portion of the canals was not available due to land disputes and delayed execution of works.



LBMC of Patloi Irrigation Scheme near proposed RCC Tunnel at chainage 551.20 in Purulia District – The work was held up due to land dispute.

10.26.3.3 Hanumata Irrigation Scheme (HIS)

- The Project was declared completed in March 2007. However, audit scrutiny revealed that the project was, in fact, incomplete since construction of one aquaduct at chainage 480.00m of Right Bank Main Canal (RBMC) was in progress and the bed level of RBMC from chainage 199.89 m onwards was higher than the design bed level and fell mostly in a rocky zone. All 3 distributaries of the RBMC were situated after chainage 199.89 m. As a result, canal water was not available for irrigation from chainage 199.89 m onwards.



At Ch. 198.00m no canal water at RBMC of HIS in Purulia District was available due to rocky zone. (The water in picture is rain water)

Chapter - 10

State
Specific
Findings

West
Bengal



Chainage 199.89m beyond which actual bed level was higher than the design bed level in Purulia District. Resultantly there was no flow of water. (The water in picture is rain water)

10.26.4 Planning and Approval of Projects

The department did not prepare any DPR, including assessment of B.C. Ratio, in respect of the selected major/medium projects brought under AIBP in 1996-97, and the original DPRs, stated to have been prepared long back in the 70s, were not available.



10.26.5 Financial Management

Audit scrutiny revealed the following irregularities in financial management:

Table S38 - Irregularities in Financial Management of AIBP Projects in West Bengal

Nature of Irregularity	Details
Undue benefits to contractor	<ul style="list-style-type: none"> In Teesta Barrage Project (TBP), failure to impose penalty on account of non completion of work in scheduled time resulted in undue favour amounting to Rs 5.40 lakh, to the contractor.
Delay in release of funds	<ul style="list-style-type: none"> There were delays in release of funds both by the Gol (which released funds at the fag end of every financial year) and the State Government, which released funds after delays ranging from 32 to 185 days.
Wasteful / Irregular expenditure	<p>In Teesta Barrage Project (TBP):</p> <ul style="list-style-type: none"> Six out of ten test-checked Divisions of TBP incurred unauthorized expenditure of Rs 2.71 crore on unapproved works. Expenditure of Rs 11.16 crore on the construction of an escape channel proved wasteful, due to wrong estimation of design capacity of the Dauk River.

10.26.6 Monitoring and Evaluation

- No State level and Project level monitoring committees had been constituted to monitor the implementation of the programme.
- Audit scrutiny revealed that CWC conducted monitoring visits and submitted monitoring status reports only once in a year, in respect of PIS and HIS during 2003-08. Further, in its inspection report of April 2008, CWC mentioned the lack of full cooperation from the project authorities, and stated that the visits could be actually undertaken to only such work sites which the project engineers wanted to show.

(K.R.SRIRAM)

Principal Director of Audit
Economic & Service Ministries

Dated : 26 April, 2010

Countersigned

(VINOD RAI)

Comptroller and Auditor General of India

Dated : 26 April, 2010
Place : New Delhi



annexures



Annexure - I

List of Major, Medium & ERM Irrigation Projects covered under AIBP

S.No.	Project Name	Category
Andhra Pradesh		
1.	Sriramsagar St.I	Major
2.	Priyadarshini Jurala	Major
3.	Somasila	Major
4.	Nagarjunsagar	Major
5.	Vamsdhara St-II Ph I	Major
6.	Tadipudi LIS	Major
7.	Pushkara LIS	Major
8.	Gundlakdamma	Major
9.	Alisagar LIS	Major
10.	J. Chokka Rao LIS	Major
11.	Guthpa LIS	Major
12.	Thotapally Barrage	Major
13.	Rajiv Bhima LIS	Major
14.	Cheyzeru (Annamaya)	Medium
15.	Madduvalasa	Medium
16.	Gundalavagu	Medium
17.	Maddigedda	Medium
18.	Kanupur Canal	Medium
19.	Yerrakalva Res.	Medium
20.	Ralivagu	Medium
21.	Gollavagu	Medium
22.	Mathadivagu	Medium
23.	Peddavagu	Medium
24.	Veligallu	Medium
25.	Nilwai	Medium
26.	Sri Komaram Bheem	Medium
27.	Tarakarama thirtha Sagaram	Medium
28.	Swarnamukhi	Medium
29.	Palemvagu	Medium
30.	Musurumilli	Medium
31.	FFC of SRSP	ERM
32.	SRSP St.II	ERM

S.No.	Project Name	Category
Assam		
33.	Dhansiri	Major
34.	Champamati	Major
35.	Bordikarai	Major
36.	Intg. Irr. Scheme in Kollong Basin	Major
37.	Pahumara	Medium
38.	Hawaiipur lift	Medium
39.	Rupahi	Medium
40.	Borolia	Medium
41.	Kolonga	Medium
42.	Burhi Dihing	Medium
43.	Modernisation of Jamuna Irrigation Project.	ERM
Bihar		
44.	Western Kosi	Major
45.	Upper Kiul	Major
46.	Durgawati	Major
47.	Punpun	Major
48.	Orni Reservoir	Medium
49.	Bilasi Reservoir	Medium
50.	Batane	Medium
51.	Sone Modernisation	ERM
Chhattisgarh		
52.	Hasdeo Bango	Major
53.	Jonk Diversion	Major
54.	Mahanadi Res. Pr.	Major
55.	Minimata (Hasdeo Bango Ph. IV)	Major
56.	Shivnath Diversion	
57.	Kosarteda	Medium
58.	Barnai	Medium
Goa		
59.	Salauli	Major
60.	Tillari I. S	Major

Annexure-I

List of Major, Medium & ERM Irrigation Projects covered under AIBP

S.No.	Project Name	Category
Gujarat		
61.	Sardar Sarovar	Major
62.	Sipu	Major
63.	Damanganga	Major
64.	Karjan	Major
65.	Sukhi	Major
66.	Watrak	Major
67.	Jhuj	Medium
68.	Mukteshwar	Medium
69.	Harnav - II	Medium
70.	Umaria	Medium
71.	Deo	Medium
72.	Aji-IV	Medium
73.	Ozat-II	Medium
74.	Brahmini-II	Medium
75.	Bhadar-II	Medium
Haryana		
76.	Gurgaon Canal	Major
77.	WRCP	Major
78.	Jawahar Lal Nehru Lift Irrigation	Major
79.	WRCP	ERM
Himachal Pradesh		
80.	Shahnehar Irrigation Project	Major
81.	Sidhata	Medium
82.	Changer Lift Irrigation Project	Medium
Jammu & Kashmir		
83.	Marwal Lift	Medium
84.	Lethpora Lift	Medium
85.	Koil Lift	Medium
86.	Rajpora Lift	Medium
87.	Tral Lift	Medium
88.	Igophey	Medium
89.	Rafiabad High Lift Irrigation	Medium
90.	Mod. Kandi Canal	Medium
91.	Prakachik Khows Canal	Medium
92.	Gumani	Medium

S.No.	Project Name	Category
Jammu & Kashmir		
93.	Torai	Medium
94.	Latratu	Medium
95.	Kansjore	Medium
96.	Sonua	Medium
97.	Surangi	Medium
98.	Tapkara Reservoir	Medium
99.	Upper Sankh	Medium
100.	Panchkhero	Medium
101.	Mod. of Ranbir Canal	ERM
102.	Mod. of New Pratap Canal	ERM
103.	Mod. of Kathua Canal	ERM
104.	Mod. of Zaingir Canal	ERM
105.	Mod. Of Dadi Canal	ERM
106.	Mod. Of Martand Canal	ERM
107.	Mod. Of Mav Khul	ERM
108.	Mod. of Babul Canal	ERM
Karnataka		
109.	Upper Krishna St.I	Major
110.	Malaprabha	Major
111.	Karanja	Major
112.	Upper Krishna St.II	Major
113.	Varahi Irrigation Project	Major
114.	Hirehalla	Medium
115.	Gandori Nala	Medium
116.	Maskinallah	Medium
117.	Votehole	Medium
118.	Ghataprabha St.III	ERM
Kerala		
119.	Kallada	Major
120.	Muvattupuzha	Major
121.	Karapuzha	Medium
Madhya Pradesh		
122.	Indira Sagar Unit I	Major
123.	Bansagar (Unit I) (M.P. Share - Works)	Major
124.	Upper Weinganga	Major

Annexure-I

List of Major, Medium & ERM Irrigation Projects covered under AIBP

S.No.	Project Name	Category
Madhya Pradesh		
125.	Sindh Phase II	Major
126.	Sindh Phase I	Major
127.	Mahi	Major
128.	Bariarpur LBC	Major
129.	Urmil RBC	Major
130.	Bawanthadi	Major
131.	Mahan	Major
132.	Omkareshwar, Ph. - I	Major
133.	Bargi Diversion Ph -I	Major
134.	Pench Div-I	Major
135.	Banjar	Medium
Maharashtra		
136.	Ghosi Khurd (Sawargaon)	Major
137.	Surya	Major
138.	Waghur(Works)	Major
139.	Bhima	Major
140.	Upper Tapi	Major
141.	Upper Wardha	Major
142.	Wan	Major
143.	Jayakwadi Stage-II	Major
144.	Isthapuri (Vishnupuri)	Major
145.	Krishna	Major
146.	Kukadi	Major
147.	Chaskman	Major
148.	Upper Penganga	Major
149.	Lower Dudhna (W)	Major
150.	Warna	Major
151.	Wan - II	Major
152.	Punad	Major
153.	Nandur Madhmeshwar	Major
154.	Lower Wardha (W)	Major
155.	Khadakpurna (W)	Major
156.	Arunavati (W)	Major
157.	Khadakawasla	Major
158.	Bembla	Major
159.	Pentakli	Major

S.No.	Project Name	Category
Maharashtra		
160.	Tarli	Major
161.	Dhom Balakwadi	Major
162.	Bahula	Medium
163.	Upper Manar(W)	Medium
164.	Hetwane	Medium
165.	Pothra Nalla	Medium
166.	Utawali	Medium
167.	Purna (W)	Medium
168.	Kar (W)	Medium
169.	Lalnala (W)	Medium
170.	Tajnapur LIS	Medium
171.	Kadvi	Medium
172.	Kasarsai	Medium
173.	Jawalgaon	Medium
174.	Kumbhi	Medium
175.	Kasari	Medium
176.	Patgaon	Medium
177.	Madan Tank	Medium
178.	Dongargaon	Medium
179.	Shivna Takli	Medium
180.	Amravati	Medium
181.	Gul	Medium
182.	Chandarbhaga	Medium
183.	Sapan	Medium
184.	Uttermand	Medium
185.	Sangola Branch Canal	Medium
186.	Morna (Gureghar)	Medium
187.	Arjuna	Medium
188.	Prakasha Barrage	Medium
189.	Sulwade Barrage	Medium
190.	Sarangkheda	Medium
Manipur		
191.	Khuga	Major
192.	Thoubal	Major
193.	Dolaithabi Barrage	Medium

Annexure-I

List of Major, Medium & ERM Irrigation Projects covered under AIBP

S.No.	Project Name	Category
Meghalaya		
194.	Rongai Valley	Medium
Orissa		
195.	Upper Indravati(KBK)	Major
196.	Subemarekha	Major
197.	Rengali	Major
198.	Upper Kolab(KBK)	Major
199.	Lower Indra(KBK)	Major
200.	Lower Suktel(KBK)	Major
201.	Potteru(KBK)	Major
202.	Telengiri(KBK)	Major
203.	Kanupur	Major
204.	Titlagarh St-II(KBK)	Medium
205.	RET Irrigation(KBK)	Medium
206.	Chheligada Dam	Medium
207.	Anandpur Barr./ Integrated Anandpur Barr.	ERM
208.	Naraj Barrage	ERM
209.	Improvement to Sason Canal System	ERM
210.	Salandi Left Main Canal-Ambahata	ERM
211.	Improvement to Salki Irrigation	ERM
Punjab		
212.	Ranjit Sagar Dam	Major
213.	Shahpur Kandi Dam	Major
214.	Irrigation to H.P. below Talwara	Medium
215.	Rehabilitation of 1st Patiala Feeder and Kotla Branch Project	Medium
216.	Remodelling of UBDC	ERM
217.	Kandi Canal Extension (Ph.II)	ERM
Rajasthan		
218.	IGNP Stage-II	Major
219.	Bisalpur	Major
220.	Narmada Canal	Major
221.	Mahi Bajaj Sagar	Major
222.	Chhapi	Medium
223.	Panchana	Medium

S.No.	Project Name	Category
Rajasthan		
224.	Chauli	Medium
225.	Jaisamand (Modernisation)	ERM
226.	Gambhiri (Modernisation)	ERM
227.	Mod. of Gang Canal	ERM
Tripura		
228.	Gumti	Medium
229.	Manu	Medium
230.	Khowai	Medium
Tamil Nadu		
231.	WRCP	ERM
Uttar Pradesh		
232.	Upper Ganga	Major
233.	Sarda Sahayak	Major
234.	Saryu Nahar	Major
235.	Providing Kharif Channel in H.K. Doab	Major
236.	Rajghat Dam	Major
234.	Bansagar Canal	Major
238.	Lakhwar Vyasi	Major
239.	Tehri	Major
240.	Gyanapur Pump Canal	Major
241.	Eastern Ganga Canal	Major
242.	Rajghat Canal	Major
243.	Jarauli Pump Canal	Major
244.	Gunta Nala Dam	Medium
245.	Mod. Agra Canal	ERM
246.	Mod. of Lachhura Dam	ERM
247.	Improving Irr. Intensity of Hardoi Branch System	ERM
West Bengal		
248.	Kangsabati	MMajor
249.	Subernrekha Barrage	Major
250.	Tatko	Medium
251.	Patloi	Medium
252.	Hanumata	Medium
253.	Mod. of Barrage and Irrigation System of DVC	ERM

(Rs. in Crore)

S.No.	State	2003 - 04		2004-05		2005-06		2006-07		2007-08											
		CLA#		State Share*	Expenditure*	CLA/Grant#		State Share*	Expenditure*	Grant#		State Share*	Expenditure*	Grant#		State Share*	Expenditure*				
		Major/ Medium	Minor			Major/ Medium	MI			Major/ Medium	MI			Major/ Medium	MI			Major/ Medium	MI		
1	Andhra Pradesh	205	0	-	-	88	0	-	-	311	0	-	-	816	27	-	-	988	0	-	-
2	Arunachal Pradesh	0	20	5	25	0	10	3	13	0	18	5	23	0	27	3	30	0	47	4	45
3	Assam	9	10	1	18	0	17	4	30	13	22	4	25	0	30	16	60	15	62	31	75
4	Bihar	75	0	49	118	37	0	72	106	16	0	129	141	3	0	273	269	59	4	233	276
5	Chhattisgarh	75	0	182	115	3	0	70	67	8	0	135	115	0	11	198	135	37	60	330	433
6	Goa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Gujarat	650	0	8	9	531	0	18	18	340	0	8	8	122	0	25	25	586	0	14	14
8	Haryana	8	0	26	34	11	0	27	38	6	0	29	35	3	0	36	39	0	0	0	0
9	Himachal Pradesh	15	0	5	20	2	2	4	17	16	14	4	42	2	2	5	54	71	44	11	111
10	J&K	13	9	8	49	7	5	15	29	25	12	14	45	18	20	12	37	94	105	8	102
11	Jharkhand	2	0	26	25	21	0	13	29	5	0	46	33	1	0	0	0	9	0	41	50
12	Karnataka	266	0	245	512	396	0	181	577	141	0	354	560	160	0	206	545	350	0	271	426
13	Kerala	31	0	16	48	49	0	25	72	9	0	16	45	17	0	50	46	0	0	0	20
14	Madhya Pradesh	568	0	0	451	517	0	23	727	168	0	0	760	26	23	7	889	372	128	279	466
15	Maharashtra	164	0	-	-	529	0	-	-	167	0	-	-	341	125	-	-	886	86	-	-
16	Manipur	13	3	6	14	12	2	11	18	70	5	20	61	138	18	37	134	54	50	51	79
17	Meghalaya	0	1	0	3	0	2	1	6	0	2	1	8	0	1	0	9	0	1	0	10
18	Mizoram	0	9	4	10	0	5	5	10	0	9	5	15	0	14	6	25	0	34	6	27
19	Nagaland	0	8	0	7	0	4	0	7	0	8	2	11	0	11	9	19	0	41	4	46
20	Orissa	147	7	56	217	24	0	183	282	148	3	141	295	133	1	157	451	609	15	291	973
21	Punjab	0	0	25	40	0	0	0	53	26	0	34	54	0	0	31	48	14	0	57	75
22	Rajasthan	500	0	0	675	353	0	0	462	90	0	0	421	12	0	0	172	157	0	0	182
23	Sikkim	0	1	0	1	0	1	0	0	0	1	0	1	0	3	0	4	0	3	1	2
24	Tripura	2	11	7	23	3	8	7	16	16	16	11	25	1	22	13	55	0	8	0	21
25	U.P.	275	0	205	281	176	0	162	251	133	0	374	368	82	0	546	839	151	0	475	744
26	Uttarakhand	0	1	9	44	0	1	13	54	0	4	39	123	0	20	19	151	0	39	30	244
27	West Bengal	3	0	2	7	13	0	7	22	0	0	0	16	7	0	24	19	1	8	2	14
	Total	3021	80	885	2746	2772	57	844	2904	1708	114	1371	3230	1882	355	1673	4055	4453	735	2139	4435

Source: Central releases (CLA and grant) are based on the records of the Ministry and CWC, while figures of States' share and reported expenditure have been compiled from information provided by the State Governments to the State Accountants General.

(It may be noted that details of releases of State Share and reported expenditure for all projects were not provided to audit by the Governments of Andhra Pradesh and Maharashtra, as they were reportedly not maintained. Information for Goa was not collected, as it was not covered in the Performance Audit)

Annexure - II

State-wise releases and reported expenditure

Annexure - III

Details of Test-Checked Projects

Sample A - Major/ Medium Projects sanctioned during 1996-97 to 2007-08

S.No.	State	Major Irrigation Projects	Medium Irrigation Projects
1	Andhra Pradesh	<ul style="list-style-type: none"> ■ Alisagar Lift Irrigation Scheme, Nizamabad ■ Sriram Sagar Project Stage-I, Karimnagar (2) 	<ul style="list-style-type: none"> ■ Veligallu Reservoir Project, Kadapa ■ Thotapalli Barrage Project, Vizianagaram ■ Khomaram Bhima Project, Adilabad ■ Ralivagu Project, Adilabad ■ Yerrakaluva Project, West Godavari (5)
2	Arunachal Pradesh	NIL	NIL
3	Assam	<ul style="list-style-type: none"> ■ Champamati Irrigation Project (1) 	<ul style="list-style-type: none"> ■ Modernisation of Jamuna Irrigation Project (1)
4	Bihar	<ul style="list-style-type: none"> ■ Western Kosi Canal Project ■ Sone Canal Modernization project (2) 	NIL
5	Chhattisgarh	<ul style="list-style-type: none"> ■ Mahanadi Reservoir Project ■ Minimata (Hasdeo) Bango (2) 	<ul style="list-style-type: none"> ■ Kosarteda (1)
6	Gujarat	<ul style="list-style-type: none"> ■ Sardar Sarovar Project (1) 	<ul style="list-style-type: none"> ■ Bhadar-II project ■ Mukteshwar project (2)
7	Haryana	<ul style="list-style-type: none"> ■ Balance work of Water Resources Consolidation Project (WRCP) (1) 	NIL
8	Himachal Pradesh	NIL	<ul style="list-style-type: none"> ■ Sidhata Medium Irrigation Project at Jawali, District Kangra. ■ Changer Area Medium Lift Irrigation project at Bassi, District Bilaspur (2)
9	Jammu & Kashmir	<ul style="list-style-type: none"> ■ Modernization of Ranbir Canal (1) 	<ul style="list-style-type: none"> ■ Modernization of Dadi Canal ■ Modernization of Mav Khul ■ Lift Irrigation Scheme, Lethpora (3)

Annexure-III
 Details of
 Test-Checked
 Projects

S.No.	State	Major Irrigation Projects	Medium Irrigation Projects
10	Jharkhand	NIL	<ul style="list-style-type: none"> ■ Upper Sankh Reservoir Scheme ■ Panchkhero Reservoir scheme ■ Sonua Reservoir Scheme ■ Tapkhero Reservoir scheme (4)
11	Karnataka	<ul style="list-style-type: none"> ■ Varahi Irrigation Project, Siddhapur ■ Karanja Project ■ Upper Krishna Project - Stage I ■ Upper Krishna Project - Stage II (4)	NIL
12	Kerala	<ul style="list-style-type: none"> ■ Kallada Irrigation Project ■ Muvattupuzha Valley Irrigation Project (2)	<ul style="list-style-type: none"> ■ Karapuzha Irrigation Project (1)
13	Madhya Pradesh	<ul style="list-style-type: none"> ■ Bawanthadi Project (Rajiv Sagar) Balaghat ■ Bargi Diversion Project Phase II(Canal RD Km. 63-104), Jabalpur ■ Bansagar Project Phase II (Canal), Rewa ■ Bargi Diversion Project Phase I (Canal RD Km. 16-63), Jabalpur ■ Indira Sagar Project (Canal) Sanawad (5)	NIL
14	Maharashtra	<ul style="list-style-type: none"> ■ Arunavati ■ Bembla ■ Khadakpurna ■ Nandur Madhmedhshwar ■ Sangola Branch Canal ■ Vishnupuri ■ Krishna (7)	<ul style="list-style-type: none"> ■ Patgaon (1)
15	Manipur	<ul style="list-style-type: none"> ■ Thoubal Multipurpose Project (1)	NIL
16	Meghalaya	NIL	<ul style="list-style-type: none"> ■ Rongai Valley Irrigation Project (1)
17	Mizoram	NIL	NIL
18	Nagaland	NIL	NIL
19	Orissa	<ul style="list-style-type: none"> ■ Rengali Irrigation Project (RBC) ■ Upper Indravati Irrigation Project (Right Canal System and U.I. Extensions) (2)	<ul style="list-style-type: none"> ■ Telengiri Irrigation Project ■ Improvement to Salki Irrigation (2)

Annexure-IIIDetails of
Test-Checked
Projects

S.No.	State	Major Irrigation Projects	Medium Irrigation Projects
20	Punjab	NIL	<ul style="list-style-type: none"> ■ Rehabilitation of Ist Patiala Feeder & Kotla Branch ■ Remodelling of U.B.D.C.Channels ■ Extension of Kandi Canal Stage-II (From Hoshiarpur to Balachaur Rd 59.500 kms to 130.00 kms) (3)
21	Rajasthan	<ul style="list-style-type: none"> ■ Modernisation of Gang Canal ■ IGNP Stage-II ■ Mahi Bajaj Sagar ■ Narmada Canal (4)	NIL
22	Sikkim	NIL	NIL
23	Tripura	NIL	<ul style="list-style-type: none"> ■ Khowai Medium Irrigation Project (1)
24	Uttar Pradesh	<ul style="list-style-type: none"> ■ Modernisation of Lahchura Dam ■ Improving Irrigation Intensity of Hardoi Branch System (ERM) ■ Bansagar Canal, ■ Rajghat Canal ■ Modernisation of Agra Canal (5)	NIL
25	Uttarakhand	NIL	NIL
26	West Bengal	<ul style="list-style-type: none"> ■ Teesta Barrage Project 	<ul style="list-style-type: none"> ■ Patloi Irrigation Scheme ■ Hanumata Irrigation Scheme (2)



Annexure-IIIDetails of
Test-Checked
Projects**Details of Test - Checked Projects****Sample B - Minor Projects sanctioned during 2003-04 to 2007-08**

S.No.	State	Minor Irrigation Projects
1	Andhra Pradesh	<ul style="list-style-type: none"> ■ Formation of new tank in Adilabad Dist ■ Formation of new tank Rechini Ragadi near Rebbana (V) Adilabad dist ■ Formation of new tank across Kankilavorre near Marrigudem (V) Adilabad Dist ■ Formation of new tank across local stream near Nandulapalli (V) Adilabad Dist ■ Formation of new tank across branch of Bkkalavagu near Nandulapalli (V) Adilabad Dist ■ Formation of new tank across Mearamvagu near Medaram (V) Adilabad Dist ■ Construction of pick up anicut across Musi River near Muppavaram (V) Prakasam Dist. ■ Construction of multipurpose checkdam across Musi river near Ananthavaram (V) Prakasam Dist. ■ Construction of anicut cum road across Maneru River near Machavaram (V) Prakasam Dist. ■ Raising FTL & improvements to Valleru Tank near Valeru (V). Prakasam Dist. <p>(10)</p>
2	Arunachal Pradesh	<ul style="list-style-type: none"> ■ MIP at Chimi village ■ MIP at Ganga village ■ MIP at Kanabung village ■ MIP at Naharlagun village ■ MIP at Chiputa village ■ MIP at Mane village ■ MIP at Hoya happa, Makam happa and Pyoto happa at Yachuli (Three MIPs) ■ Rikha Bogo MIP at Reru Kallung Village ■ MIP at Saro- Rai near Pine Grove ■ Improvement & Modification of Lipa Gai MIP (Hong), Sipu (Old Ziro) & Kohi Bogo (Tajang Kley) MIP under Ziro- I area (Three MIPs) ■ Improvement and Renovation of Sigo Nallah MIP at Ngorlung Vilage ■ Renovation of Head Work of Gagur MIP at Niglok ■ Construction of Sille to Dekam MIP at Ledum Pasighat Sub-division. ■ Construction of MIC at Eme Garsing (M) & Rangkop Area at Sigar ■ Improvement & Renovation of Suli MIC at Sigar ■ Improvement & Renovation of Tali MIP at Mottum Sigar area ■ Improvement and Renovation of Sipir MIC at Ayeng village <p>(21)</p>
3	Assam	<ul style="list-style-type: none"> ■ Umpho Irrigation Scheme (IS), Karbi Anglong ■ Chitunlangso I.S., Karbi Anglong ■ Dumatumkuchi I.S., Karbi Anglong ■ Dikoipi I.S., Karbi Anglong ■ Upper Langhan I.S., Karbi Anglong ■ Langlakso I.S., Karbi Anglong ■ Kramkuchi I.S., Karbi Anglong ■ Mortem I.S., Karbi Anglong ■ Habang I.S., Karbi Anglong ■ Kamar Tisso Gaon I.S., Karbi Anglong ■ Simaluti Gaon I.S., Karbi Anglong ■ Kunguri Harimabour I.S., Karbi Anglong

Annexure-IIIDetails of
Test-Checked
Projects

S.No.	State	Minor Irrigation Projects
		<ul style="list-style-type: none"> ■ Rongkuru I.S., Karbi Anglong ■ Langkangbob I.S., Karbi Anglong ■ Chelabor I.S., Karbi Anglong ■ Longkimi I.S., Karbi Anglong ■ Long Teroi I.S., Karbi Anglong ■ Baliyan I.S., Karbi Anglong ■ Moinapur I.S., Karbi Anglong ■ Geruah I.S., Udalguri ■ Revival of Raja Mayong I.S., Moorigoan ■ L.I.S. in Upper Joysanbad Area, Haikandi ■ Modernisation of Ubhati I.S., Kamrup ■ Improvement of Lakhinadi I.S., Nalbari ■ FIS from Brahmacherra Nala in Tarapur Area., Cachar <p>(25)</p>
4	Bihar	<ul style="list-style-type: none"> ■ Gerua Ahar Reservoir Scheme ■ Nayaki Reservoir Scheme ■ Manijor Ahar Reservoir Scheme ■ Ganesh Asthan Weir Scheme <p>(4)</p>
5	Chhattisgarh	<ul style="list-style-type: none"> ■ Malanger Diversion Scheme ■ Pithama Tank ■ Jharan Tank ■ Chendra Tank ■ Muskuti Diversion Scheme ■ Kokia Diversion Scheme ■ Pandoli Anicut ■ Roopur Tank ■ Jamti Jhariya Diversion Scheme ■ Jawar Nagar Anicut ■ Bamhani Diversion Scheme ■ Ghumrapada Tank <p>(12)</p>
6	Himachal Pradesh	<ul style="list-style-type: none"> ■ Lift Irrigation Scheme Haroli, District Una ■ Lift Irrigation Scheme Takka, District Una ■ Lift Irrigation Scheme Majhiar Sera and Pakhrol, District Hamirpur ■ Flow Irrigation Scheme Baknoj, District Kullu ■ Flow Irrigation Scheme Gojra Khakhnal, District Kullu ■ Lift Irrigation Scheme Cum Flow Irrigation Scheme Kharahal from Sarwari River, District Kullu ■ Flow Irrigation Scheme Seena Ropa at Anni, District Kullu ■ Lift Irrigation Scheme Kotla Ban in G.P. Langna, District Mandi ■ Flow Irrigation Scheme kardhwan in Tehsil Sarkaghat, District Mandi ■ Flow Irrigation Scheme Behal Pairi Kasrala, District Mandi ■ Imp. of Bata Majra Canal, District Sirmour ■ Rem. & Imp. of Giri Irrigation Project, District Sirmour ■ Lift Irrigation Scheme Bhadana Kalatha, District Sirmour ■ Lift Irrigation Scheme at RD 15400 on LBC of Giri Project, District Sirmour

Annexure-IIIDetails of
Test-Checked
Projects

S.No.	State	Minor Irrigation Projects
		<ul style="list-style-type: none"> ■ Lift Irrigation Scheme Haroli, District Una ■ Lift Irrigation Scheme Takka, District Una ■ Lift Irrigation Scheme Majhiar Sera and Pakhrol, District Hamirpur ■ Flow Irrigation Scheme Baknoj, District Kullu ■ Flow Irrigation Scheme Gojra Khakhnal, District Kullu ■ Lift Irrigation Scheme Cum Flow Irrigation Scheme Kharahal from Sarwari River, District Kullu ■ Flow Irrigation Scheme Seena Ropa at Anni, District Kullu ■ Lift Irrigation Scheme Kotla Ban in G.P. Langna, District Mandi ■ Flow Irrigation Scheme kardhwan in Tehsil Sarkaghat, District Mandi ■ Flow Irrigation Scheme Behal Pairi Kasrala, District Mandi ■ Imp. of Bata Majra Canal, District Sirmour ■ Rem. & Imp. of Giri Irrigation Project, District Sirmour ■ Lift Irrigation Scheme Bhadana Kalatha, District Sirmour
7	Jammu & Kashmir	<ul style="list-style-type: none"> ■ Construction of LIS Saidgarh, Jammu ■ Remodelling of Basantpur Canal, Kathua ■ Construction of LIS Ambaran-II, Jammu ■ Construction of LIS Saranoo Thathi, Rajouri ■ Construction of Shiv Ganga Canal, Reasi ■ Construction of Jib Padanoo Khul, Udhampur ■ Construction of Kaw Sadota Khul, Udhampur ■ Construction of Marothi Khul, Udhampur ■ Laxmi Mawas Canal, Ganderbal ■ Wani Aram Canal, Ganderbal ■ Padshahi Canal, Ganderbal ■ LIS Watchi, Shopain ■ LIS Haritar, Barmulla ■ Construction of LIS Hassanpur Tulkhan, Kulgam ■ Construction of New Station at Kharamntoor, Anantnag ■ Construction of 15 No. tanks at Rajwar, Kupwara ■ Construction of Younus Ujroo Khul, Kupwara ■ Construction of Gouripora, Pulwama ■ Construction of Hanji Khul, Pulwama <p>(19)</p>
8	Madhya Pradesh	<ul style="list-style-type: none"> ■ Bharkanda, ■ Tulsipar ■ Ataikheda. ■ Gokulpura, ■ Kawarpura, ■ Katitalai, ■ Baldavad ■ Chhagola, ■ Kadwal, ■ Daria, ■ Bajrangsagar, ■ Tambolia, ■ Kalsadia, ■ Ratnali ■ Kolpur, ■ Makanpur <p>(16)</p>

Annexure-IIIDetails of
Test-Checked
Projects

S.No.	State	Minor Irrigation Projects
9	Maharashtra	<ul style="list-style-type: none"> ■ Mirzapur M. I. Tank ■ Inamgaon K.T Weir ■ Uchhil M. I. Tank ■ Kangaon K. T. Weir ■ Daul Hipparaga Storage Tank ■ Kawara Nalla M. I. Tank ■ Chopan M. I. Tank ■ Mawalgaon Storage Tank ■ Sindgi Storage Tank ■ Wazar Storage Tank, ■ Bhandarwadi K. T. Weir ■ Chaupala M. I. Tank ■ Sangamwadi M. I. Tank ■ Deopudi M. I. Tank ■ Dhamangaon Storage Tank <p>(15)</p>
10	Manipur	<ul style="list-style-type: none"> ■ Construction of Irrigation Tank at Salouni paddy field, Senapati District. ■ Construction of pucca canal of RLI Scheme at Kumbi Setupur, Bishnupur ■ Construction of weir across Laiki River, Kameng, Imphal East District. ■ Construction of weir across Nachou Turel at Nachou, Bishnupur District. ■ Construction of weir at Borayangbi across Sandangkong Stream, Bishnupur District. ■ Construction of weir at Murri(Joyland), Senapati District. ■ Construction of weir at Ningthoumanai, Waikhong, Thoubal District. ■ Construction of weir over Itok River at Chandrakong, Thoubal District. ■ MI Scheme at Sinjawl Tuijen, Churachandpur District. ■ Construction of weir across Honia river at Thiwa Village, Senapati District. ■ M.I. Scheme at Mataleisang, Churachandpur District. ■ Construction of weir across Leingaklok River at Namthejang, Senapati District. ■ Construction of weir across Nungpokpi at Kabo Wakching Maning, Bishnupur District. ■ Construction of weir at Oksu, Imphal East District. ■ Construction of Dam across Lalkhan at Ningthou Latingkhal, Imphal East District. ■ Construction of weir at Elang Chingjin, Bishnupur District. ■ Construction of weir across Tuining River Khongkaijang Village, Churachandpur District. ■ Construction of weir at Tungam Village, Senapati District. ■ Construction of M.I. Canal at Wangkhei Payeng Loukon (Thanga Lawai), Bishnupur District. ■ Construction of providing and fixing steel regulator at Magujang Maril (Tentha Thongkhong, Thoubal District. <p>(20)</p>
11	Meghalaya	<ul style="list-style-type: none"> ■ Chiljhora ■ Gandual ■ Ringdee ■ Andherkona ■ Kharukoi ■ Galasora

Annexure-IIIDetails of
Test-Checked
Projects

S.No.	State	Minor Irrigation Projects
		<ul style="list-style-type: none"> ■ Lyting Lyngdoh ■ Madan Jynru ■ Lynkhoi ■ Punthorsong ■ Mynrud Moopasar (11)
12	Mizoram	<ul style="list-style-type: none"> ■ Chhimluang- Saitual, Aizawl ■ Sakelui- Thingsul, Tlangnuam, Aizawl ■ Tuichar- Lungpher, Aizawl ■ Saichhun Thualthu, Lunglei ■ Saphak, Lunglei ■ Jeep Road – Zau, Kolasib ■ Saihapui, Kolasib (7)
13	Nagaland	<ul style="list-style-type: none"> ■ Kicheliqa, Kiyekhu, Zunheeboto ■ Tishi, Sute-shichi, Zunheeboto ■ Chathe Ph.II, Razaphe, Dimapur ■ Aphughoki, Nehokhu, Dimapur ■ Balughoki, Henevi, Dimapur ■ Awokupughoki, Ghokito Village, Dimapur ■ Langlong, Noklak, Tuensang ■ Langlong Ph. II, Noklak, Tuensang ■ Duibi, Jalukie Town, Jalukie ■ Teuzairie, Poilwa, Jalukie ■ Mangleu, Beisumpuikum, Jalukie ■ Nyapongsum Ph. II, Tuensang, ■ Dikhu Valley, Ponjo/Yachem, Longleng ■ Shimlo , Mon Village, Mon ■ Longnok-Tegee, Phomching, Mon ■ Nzu, Phiro, Wokha ■ Kheruzhu, Zubza, Kohima (17)
14	Orissa	<ul style="list-style-type: none"> ■ Chitrangi , Koraput ■ Doraguda , Malkhangiri ■ Kurubela , Nawarangpur ■ Chipulijore , Kalandi ■ Dhawandhar , Kalandi ■ Hirapur, Koraput ■ Jatakhali, Kalandi ■ Subamarekha, Bolangir ■ Laxmipur , Rayagada ■ Badatema ,Koraput ■ Chachrabhata, Nauapada ■ Randikona , Rayagada ■ Jagamunda ,Koraput ■ Ankamara, Bolangir ■ Rangamaguda, Malkhangiri ■ Karanjanalla, Rayagada (16)

Annexure-IIIDetails of
Test-Checked
Projects

S.No.	State	Minor Irrigation Projects
15	Sikkim	<ul style="list-style-type: none"> ■ Tumin MIC khola source to Adikari Tara L/Raley ■ Koti khola khet, South Kartok in Namcheybong ■ MIC at Pachey Samsing ■ MIC at Rangtu khola to Yongthang at L/Sumin ■ MIC at Dantakgaon, Khatiwadagaon, Gurung gaon, Chamling gaon at Dalapchand ■ Malangthang MIC at Ranka ■ MIC at Arigaon, Simana Khola Khet, Khamdong ■ Lokchu khola MIC at Nandok busty ■ Ghumouney khet MIC at Aritar ■ Devithan MIC to Lingzey Thulo khet ■ Bechhu khola MIC at Nandok busty ■ Singlabong Kholsa Pokhrel Khet, West Pendum ■ Pagla Khola Khoteng Khet MIC at Namrong, Martam Mazitam ■ MIC from Rabong Khola to Rungdung Khet ■ Damala Gaon MIC ■ MIC from Gangyap Chulung Jhora, Chulung khet, Changey Cheti GPU ■ Sokeythang MIC at L/Linding ■ MIC at Chilisay Army Camp to Bagay Genopang Khet ■ MIC from Kali Khola to Lingzey Khet at Sum ■ MIC Gagyap busty to Gerethang busty under Lachen ■ MIC at Gor ■ MIC from Tumin Khola to Raley paddy field at Raley ■ MIC at Tingvong ■ Tokdang MIC ■ Jholongay to L/Maney dara MIC ■ MIC Paglakhola to Tingley, Timi-Tarku. ■ MIC at Devithang to Thulo khet at Dong busty ■ Phodong khola to Namlung MIC ■ Khani Khola to Kubindey MIC ■ MIC at Sadam -Suntalay, Melli ■ Bering MIC, Wok. ■ Selep MIC from Chankang kyong under Barfung block ■ Const/Extension of Mainabotey MIC, Damthang ■ Extn/Constn. of Manpur khola to Manpur khet MIC ■ Chokam Khola, Ralang ■ Rayong to Tinkitam Tamaim MIC ■ Const. / Extension of Khalbalay MIC (D.P.Rai), Jorthang ■ Dong MIC at Nampruk ■ Lingmoo MIC ■ Samardung MIC at Samardung ■ College Khola to Samardung MIC ■ Lingzo MIC ■ Khani Khola to Pradhan gaon MIC, Payong ■ Borong MIC ■ Niyakhola MIC, Khamdong ■ Geyten MIC under Dentam constituency ■ MIC (35cmx40cm) internal dimension open channel from Karemthang

S.No.	State	Minor Irrigation Projects
		<ul style="list-style-type: none"> ■ Tumin MIC khola source to Adikari Tara L/Raley ■ Koti khola khet, South Kartok in Namcheybong ■ MIC at Pachey Samsing ■ MIC at Rangtu khola to Yongthang at L/Sumin ■ MIC at Dantakgaon, Khatiwadagaon, Gurung gaon, Chamling gaon at Dalapchand ■ Malangthang MIC at Ranka ■ MIC at Arigaon, Simana Khola Khet, Khamdong ■ Lokchu khola MIC at Nandok busty ■ Ghumouney khet MIC at Aritar ■ Devithan MIC to Lingzey Thulo khet ■ Bechhu khola MIC at Nandok busty ■ Singlabong Kholsa Pokhrel Khet, West Pendam ■ Pagla Khola Khoteng Khet MIC at Namrong, Martam Mazitam ■ MIC from Rabong Khola to Rungdung Khet ■ Damala Gaon MIC ■ MIC from Gangyap Chulung Jhora, Chulung khet, Changey Cheti GPU ■ Sokeythang MIC at L/Linding ■ MIC at Chilisay Army Camp to Bagay Genopang Khet ■ MIC from Kali Khola to Lingzey Khet at Sum
16	Tripura	<ul style="list-style-type: none"> ■ L.I Scheme at Kathiram over Dagducherra, Mandi, West District ■ L.I Scheme at Kalibari-II over Lalcherra, Khowai NP, West District ■ L.I Scheme at Naprai Sardarpara from river Sonai, Hezamara, West District ■ L.I Scheme at ujanudhpur-IV, Kumarghat, North District ■ L.I Scheme at Nutanpally-I from Kalapaniacherra, Satchand, South District ■ L.I Scheme at Tuisama (Chandul ADC) near Lalshingmura Jr. B. School, Melaghar, West District ■ L.I Scheme at Purba Rangamati-II, Amarpur South District ■ L.I Scheme at Gamakomath (Burburia), Amarpur South District ■ L.I Scheme at Parba Nalicherra (Near land of Bhanu Ghosh), Ambassa, Dhalai District ■ L.I Scheme at Balamcherra near high school, Ambassa, Dhalai District ■ L.I Scheme at Noagaon Fatikcherra Phase-IV, Mohanpur, West District ■ L.I Scheme at Berimura Phase-II in Fatikcherra G/S, Mohanpur, West District ■ L.I Scheme at Noagaon Fatikcherra Phase-III, Mohanpur, West District ■ L.I Scheme at Satyagurupara (near santipurin) Ghilatali G.P from Khowai river, Kalyanpur, West District ■ L.I Scheme at Bhagyamani Chakmapara from Gaburcherra Phase-II, Hrishyamukh, South District ■ L.I Scheme at Sarkipara (Chakrakcherra) from Longairiver, Damcherra North District ■ L.I Scheme at Futtali ove Baghuacherra in Futtali G/S, Gournagar, North District ■ L.I Scheme at North Dabbari G/P, Salema, Dhalai District ■ L.I Scheme at West Lamboo, Salema, Dhalai District ■ L.I Scheme at South Padmabill from Dugangacherra, Panisagar, North District ■ L.I Scheme at Noabaripara over Maharancherra, Matabari, South District ■ L.I Scheme at Maithulong (Conv), Killa, South District ■ L.I Scheme at Chandrakiran Para, Karbook, South District ■ L.I Scheme at with high capacity pump at Rabindranagar, Kathalia, West District ■ L.I Scheme at SouthMasauli over Manu, Kumarghat, North District <p>(25)</p>

Annexure-III

Details of
Test-Checked
Projects

Annexure-IIIDetails of
Test-Checked
Projects

S.No.	State	Minor Irrigation Projects
17	Uttarakhand	<ul style="list-style-type: none"> ■ Sobra, Pauri ■ Garhmola, Pauri ■ Gawani, Pauri ■ Jakhola, Pauri ■ Construction of 35 km. field gul lining in block Dugadda, Pauri Garhwal ■ Kheti (E.R.M), Chamoli ■ Lalisera Mailagwar, Chamoli ■ Koliagair, Chamoli ■ Kush, Chamoli ■ Construction of Baank canal in Deval Block of Chamoli District ■ Devaria, Udham Singh Nagar ■ Surajpur Richha, Udham Singh Nagar ■ Srirampur II, Udham Singh Nagar ■ Harsan, Udham Singh Nagar ■ Lining of Katna, Basgar, Bhuria and Daunda Canal, Udham Singh Nagar ■ Jaicholi, Almora ■ Dhungamohan, Almora ■ Degot, Almora ■ Dhaura, Almora ■ Lining and field Gul construction in Bhaisiachhana, Almora ■ Construction of 5.753 km. long lining of channel & gul in Kanalichhina block of Pithoragarh District ■ Barave, Pithoragarh ■ Nayal, Pithoragarh ■ Bhadgaon, Pithoragarh ■ Bangouthi, Pithoragarh ■ Kawakhera, Dehradun ■ Vinhar, Dehradun ■ Gohri Maphi, Dehradun ■ Hartad-Santad, Dehradun ■ Construction of 29.70 km. Hill channels in Chakrata Block, Dehradun <p>(30)</p>
18	West Bengal	<ul style="list-style-type: none"> ■ Aulia RLIS, Goalpokher-II, Uttar Dinajpur ■ Dhajore SFMIS, Ranibundh, Bankura ■ Hura Check Dam, Hura, Purulia ■ Kheriarata SFMIS, Binapur-II, Pachim Midnapore ■ Nwada SFMIS, Chhatna-I, Bankura ■ Paniha RLIS, Karandighi, Uttar Dinajpur ■ Saltora Check Dam, Saltora, Bankura ■ Sanka SFMIS, Raghunathpur-I, Purulia <p>(8)</p>

Annexure - IV

State-wise Irrigation Potential created till 2007-08

S.No.	Name of States	Ultimate Irrigation Potential of AIBP Projects (In million ha)	Irrigation Potential reportedly created till 2007-08 (In million ha)
1.	Andhra Pradesh	1.531	0.348
2.	Assam	0.234	0.069
3.	Bihar	1.228	0.480
4.	Chhattisgarh	0.691	0.115
5.	Goa	0.039	0.013
6.	Gujarat	2.028	0.495
7.	Haryana	0.401	0.109
8.	Himachal Pradesh	0.033	0.011
9.	Jammu & Kashmir	0.069	0.031
10.	Jharkhand	0.063	0.014
11.	Karnataka	1.137	0.448
12.	Kerala	0.128	0.034
13.	Madhya Pradesh	1.389	0.230
14.	Maharashtra	2.022	0.350
15.	Manipur	0.056	0.007
16.	Meghalaya	0.005	0.000
17.	Orissa	1.112	0.136
18.	Punjab	0.141	0.116
19.	Rajasthan	1.300	0.562
20.	Tripura	0.017	0.010
21.	Tamilnadu	0.000	0.00
22.	Uttar Pradesh	4.286	1.234
23.	West Bengal	1.080	0.091
Total		18.990	4.903

Annexure - V

State-wise details of Time & Cost Overrun

S.No.	Name of States	Total Test Checked Major / Medium Irrigation (MMI) Project	Total number of MMI Projects with time overrun	Total number of MMI Projects with cost overrun	Total Test Checked Minor Irrigation Project	Total number of Minor Projects with time and cost overrun
1.	Andhra Pradesh	7	7	6	10	0
2.	Arunachal Pradesh	0	0	0	21	0
3.	Assam	2	2	1	25	0
4.	Bihar	2	2	2	4	0
5.	Chhattisgarh	3	2	2	12	5
6.	Gujarat	3	3	3	0	0
7.	Haryana	1	1	0	0	0
8.	Himachal Pradesh	2	2	2	25	18
9.	Jammu & Kashmir	4	4	3	19	0
10.	Jharkhand	4	4	4	0	0
11.	Karnataka	4	4	3	0	0
12.	Kerala	3	1	3	0	0
13.	Madhya Pradesh	5	4	3	16	16
14.	Maharashtra	8	1	1	15	9 (only time overrun)
15.	Manipur	1	1	1	20	0
16.	Meghalaya	1	1	1	11	7
17.	Mizoram	0	0	0	7	0
18.	Nagaland	0	0	0	17	4 (only time overrun)
19.	Orissa	4	3	2	16	13
20.	Punjab	3	1	1	0	0
21.	Rajasthan	4	3	3	0	0
22.	Sikkim	0	0	0	65	0
23.	Tripura	1	1	1	25	1
24.	Uttar Pradesh	5	3	3	0	0
25.	Uttarakhand	0	0	0	30	0
26.	West Bengal	3	3	3	8	0
	Total	70	53	48	346	73

Annexure - VI

State-wise list of Major and Medium Projects taken up/ongoing during 2005-08

S.No.	Name of States	Projects taken up during 2005-2008	Projects ongoing as of March 2008
1.	Andhra Pradesh	21	21
2.	Assam	0	5
3.	Bihar	0	5
4.	Chhattisgarh	2	3
5.	Goa	0	1
6.	Gujarat	0	5
7.	Haryana	0	1
8.	Himachal Pradesh	0	3
9.	Jammu & Kashmir	6	10
10.	Jharkhand	0	7
11.	Karnataka	2	8
12.	Kerala	1	2
13.	Madhya Pradesh	5	9
14.	Maharashtra	33	38
15.	Manipur	0	3
16.	Meghalaya	0	1
17.	Orissa	0	11
18.	Punjab	1	4
19.	Rajasthan	0	2
20.	Tripura	0	3
21.	Tamilnadu	0	0
22.	Uttar Pradesh	2	7
23.	West Bengal	0	4
	Total	73	153

Annexure - VII

Details of Sanctions issued between 2003-04 and 2007-08

Year	Sanctions issued during the Year		Sanctions issued during the last quarter		Sanctions issued during March	
	No. of sanctions	Amount (Rs. in crore)	No. of sanctions	Amount (Rs. in crore)	No. of sanctions	Amount (Rs. in crore)
2003-04	14	3129	9	2338	6	1704
2004-05	11	2867	6	2139	5	2050
2005-06	17	1960	11	1082	7	1071
2006-07	15	1823	8	1478	3	944
2007-08	17	7609	4	4516	2	4188
Total	74	17388	38	11552	23	9957

(Note: The data regarding the sanctions issued during the years was furnished by the MoWR. These figures, however, do not tally with the total releases made during a particular year by MoWR, as furnished by it in the consolidated statements of releases.)



Annexure - VIII

Details of Monitoring Visits by MoWR/CWC

S.No.	Name of State	Number of projects visited by monitoring team of MoWR/ CWC	Month and Year of Visit
1.	Andhra Pradesh	3	12/2006
		7	9/2008
2.	Chhattisgarh	7	9/2008
3.	Himachal Pradesh	7	9/2008
4.	Jammu & Kashmir	10	Between 6/2007 and 11/2007
5.	Maharashtra	6	5/2008
6.	Meghalaya	1	5/2007
7.	Nagaland	5	9/2007
8.	Orissa	1	12/2007
9.	Tripura	6	11/2005



List of Abbreviations

ACA	Additional Central Assistance
AIBP	Accelerated Irrigation Benefits Programme
BCR	Benefit Cost Ratio
CAD	Command Area Development
CBWR	Compulsory Basic Water Rates
CCA	Culturable Command Area
CD	Cross Drainage
CLA	Central Loan Assistance
DPA	Drought Prone Area
DPR	Detail Project Reports
DTW	Deep Tube Well
EE	Executive Engineer
E-in-C	Engineer-in-Chief
ERM	Extension, Renovation & Modernisation
FIP	Flow Irrigation Project
FTP	Fast Track Project
GCS	General Category States
Gol	Government of India
ha	Hectare
IP	Irrigation Potential
K.T. Weirs	Kolhapur Type Weirs
KBK	Areas falling within erstwhile Koraput, Bolangir, and Kalahandi Districts of Orissa
LIS	Lift Irrigation Scheme
MIP	Minor Irrigation Projects
MoEF	Ministry of Environment and Forests
MoF	Ministry of Finance
MoU	Memorandum of Undertaking
MoWR	Ministry of Water Resources
NHAI	National Highways Authority of India
NPCC	National Project Construction Corporation
RST	Remote Sensing Technology
SCS	Special Category States
SoE	Statements of Expenditure
SRSWOR	Simple Random Sampling Without Replacement
UCs	Utilisation Certificates
UIP	Ultimate Irrigation Potential
WUAs	Water User Associations



PRICE:
INLAND: Rs. 65.00
FOREIGN: US\$ 5
(Including postage/air mail)

© Comptroller and Auditor General of India
2010 - 11
Website : <http://www.cag.gov.in>