

Annexures

Annexure 1.1
(Refer paras 1.4 and 1.6)

State wise number of MMI projects and MI schemes under AIBP

(Amount in ₹ crore)

Sl.No.	State	MMI Projects		MI Schemes	
		Total number of projects during 2008-17	Total sanctioned cost	Total number of MI Schemes during 2008-17	Total sanctioned cost
1.	Gujarat	5	55,049.28	-	-
2.	Maharashtra	48	35,803.69	169	723.19
3.	Telangana	13	24,614.09	-	-
4.	Karnataka	17	23,980.51	750	966.74
5.	Madhya Pradesh	19	15,902.27	593	1,748.13
6.	Odisha	11	15,840.36	58	92.52
7.	Rajasthan	3	10,024.23	7	73.49
8.	Uttar Pradesh	9	9,994.90	-	-
9.	Jharkhand	8	7,255.13	537	544.31
10.	Bihar	6	3,893.43	268	198.02
11.	Andhra Pradesh	12	4,564.50	100	373.41
12.	Chhattisgarh	7	3,413.06	409	1,700.30
13.	Manipur*	3	2,286.26	505	-
14.	West Bengal	4	2,078.80	57	23.88
15.	Punjab*	3	1,599.47	-	-
16.	Uttarakhand	1	1,446.00	2,295	1,351.87
17.	Assam	6	1,184.06	1,554	6,211.36
18.	Kerala	4	1,058.17	-	-
19.	Goa	1	1,051.69	-	-
20.	Jammu & Kashmir	13	796.09	878	1,075.54
21.	Himachal Pradesh	4	674.33	359	52.11
22.	Tripura	3	273.36	181	104.48
23.	Meghalaya	1	16.30	348	450.29
24.	Mizoram	-	-	207	182.35
25.	Sikkim	-	-	444	121.91
26.	Arunachal Pradesh	-	-	625	313.77
27.	Nagaland	-	-	947	493.11
TOTAL		201	2,22,799.98	11,291	16,800.78

*Manipur and Punjab were not selected in the sample.

Annexure 1.2
(Refer para 1.5)

State-wise releases and reported expenditure of MMI projects and MI Schemes under AIBP during 2008-17

(Amount in ₹ crore)

Sl.No.	Name of the State	CA released	State share released	Reported Expenditure
1.	Andhra Pradesh	444.00	1,463.06	1,619.85
2.	Arunachal Pradesh	336.00	Not furnished	394.76
3.	Assam	3,682.00	454.19	3,992.90
4.	Bihar	416.00	3,314.64	2,345.46
5.	Chhattisgarh	1,040.00	1,348.51	2,373.86
6.	Goa	107.00	Not furnished	544.99
7.	Gujarat	4,644.00	10,770.83	14,498.80
8.	Himachal Pradesh	466.00	41.85	488.51
9.	Jammu & Kashmir	1,377.00	117.38	1,416.29
10.	Jharkhand	1,839.00	1,866.24	3,676.09
11.	Karnataka	3,512.00	4,205.16	8,876.44
12.	Kerala	15.00	553.27	745.59
13.	Madhya Pradesh	4,864.00	11,508.57	16,153.73
14.	Maharashtra	5,953.00	9,371.39	14,442.98
15.	Manipur	1,388.00	Not available*	Not available*
16.	Meghalaya	451.00	105.44	555.73
17.	Mizoram	182.00	20.49	306.67
18.	Nagaland	512.00	52.86	578.99
19.	Odisha	3,469.00	Not furnished	9,294.45
20.	Punjab	243.00	Not available*	Not available*
21.	Rajasthan	483.00	Not furnished	1,619.19
22.	Telangana	2,301.00	8,877.64	15,279.16
23.	Tripura	181.00	17.08	193.80
24.	Sikkim	60.00	12.72	72.83
25.	Uttar Pradesh	1,784.00	2,491.82	3,341.71
26.	Uttarakhand	1,352.00	212.70	1,563.00
27.	West Bengal	42.00	Not furnished	116.84
TOTAL		41,143.00	56,805.84	1,04,492.62

*Manipur and Punjab were not selected in the audit sample.

Annexure 1.3
(Refer para 1.5)

Central assistance/Grants released for MMI projects and MI Schemes during 2008-17

(Amount in ₹ crore)

Sl. No.	State	MMI projects	MI schemes	Total
1.	Andhra Pradesh	70	374	444
2.	Arunachal Pradesh	-	336	336
3.	Assam	389	3,293	3,682
4.	Bihar	218	198	416
5.	Chhattisgarh	219	821	1,040
6.	Goa	107	-	107
7.	Gujarat	4,644	-	4,644
8.	Himachal Pradesh	229	237	466
9.	Jammu & Kashmir	302	1,075	1,377
10.	Jharkhand	1,295	544	1,839
11.	Karnataka	3,103	409	3,512
12.	Kerala	15	-	15
13.	Madhya Pradesh	3,115	1,749	4,864
14.	Maharashtra	5,230	723	5,953
15.	Manipur	1,119	269	1,388
16.	Meghalaya	-	451	451
17.	Mizoram	-	182	182
18.	Nagaland	-	512	512
19.	Odisha	3,376	93	3,469
20.	Punjab	243	-	243
21.	Rajasthan	469	14	483
22.	Sikkim	-	60	60
23.	Telangana	2,301	-	2,301
24.	Tripura	76	105	181
25.	Uttar Pradesh	1,784	-	1,784
26.	Uttarakhand	-	1,352	1,352
27.	West Bengal	30	12	42
TOTAL		28,334	12,809	41,143

Source: Ministry

Annexure 1.4
(Refer para 1.9)

State-wise details of MMI projects and MI schemes selected under Sample A, B and C

Sl. No.	State	Major and Medium Projects					Minor Schemes			
		Sample A			Sample B			Sample C		
		Completed	Ongoing	Deferred	Completed	Ongoing	Deferred	Completed	Ongoing	
1.	Andhra Pradesh	0	0	0	2	3	1	1	1	
2.	Arunachal Pradesh	0	0	0	0	0	0	15	7	
3.	Assam	0	0	0	1	3	0	15	15	
4.	Bihar	1	0	0	0	2	0	11	3	
5.	Chhattisgarh	1	1	0	2	0	0	12	9	
6.	Goa	0	0	0	0	1	0	0	0	
7.	Gujarat	0	0	0	2	1	0	0	0	
8.	Himachal Pradesh	0	1	0	0	2	0	15	2	
9.	Jammu & Kashmir	0	2	0	0	7	0	15	15	
10.	Jharkhand	0	1	0	0	4	0	15	5	
11.	Kerala	0	1	0	0	1	0	0	0	
12.	Karnataka	1	5	0	2	2	0	15	10	
13.	Madhya Pradesh	3	4	0	0	4	0	15	8	
14.	Maharashtra	1	5	0	13	10	0	4	4	
15.	Meghalaya	0	0	0	0	0	1	11	6	
16.	Mizoram	0	0	0	0	0	0	10	2	
17.	Nagaland	0	0	0	0	0	0	15	8	
18.	Odisha	0	1	0	0	6	0	1	2	
19.	Rajasthan	0	0	0	0	3	0	1	1	
20.	Sikkim	0	0	0	0	0	0	14	8	
21.	Telangana	0	0	0	0	6	0	2	0	
22.	Tripura	0	0	0	0	2	0	8	1	
23.	Uttar Pradesh	0	2	0	1	3	0	0	0	
24.	Uttarakhand	0	0	0	0	0	1	15	15	
25.	West Bengal	0	0	0	0	2	0	3	0	
Total		7	23	0	23	62	3	213	122	
Grand Total		30			88			335		

Annexure 1.5
(Refer para 1.9)

State wise details of release and expenditure of sampled MMI projects and MI schemes

(Amount in ₹ crore)

Sl. No.	Name of the State	MMI projects				MI schemes		
		No. of projects	Sanctioned cost	CA released 2008-17	Expenditure 2008-17	No. of schemes	Sanctioned cost	Expenditure 2008-17
1.	Andhra Pradesh	6	1,998.63	0	612	2	29.80	17.30
2.	Arunachal Pradesh	-	-	-	-	22	17.45	15.60
3.	Assam	4	1,093.58	388	455	30	240.93	133.07
4.	Bihar	3	1,726.87	143	842	14	54.63	55.13
5.	Chhattisgarh	4	1,758.51	144	703	21	141.14	155.53
6.	Goa	1	1,051.69	107	545	-	-	-
7.	Gujarat	3	54,921.19	4,643	14,499	-	-	-
8.	Himachal Pradesh	3	586.24	198	329	17	52.11	54.62
9.	Jammu & Kashmir	9	679.60	261	290	30	220.08	128.25
10.	Jharkhand	5	6,999.00	1,280	2,982	20	34.39	30.40
11.	Karnataka	10	16,179.74	1,197	4,046	25	75.59	75.48
12.	Kerala	2	594.57	6	51	-	-	-
13.	Madhya Pradesh	11	10,483.03	1,790	5,599	23	165.25	188.66
14.	Maharashtra	29	26,695.15	3,579	9,668	8	365.30	528.82
15.	Meghalaya	1	16.30	0	0	17	94.45	41.52
16.	Mizoram	-	-	-	-	12	19.09	16.34
17.	Nagaland	-	-	-	-	23	29.38	28.56
18.	Odisha	7	10,282.08	1,744	6,044	3	4.38	6.76
19.	Rajasthan	3	10,024.23	469	1,550	2	59.32	47.85
20.	Sikkim	-	-	-	-	22	6.86	4.32
21.	Telangana	6	23,678.78	2,243	11,016	2	3.72	5.01
22.	Tripura	2	190.35	50	50	9	12.34	9.70
23.	Uttarakhand	1	1,446	0	0	30	53.03	47.52
24.	Uttar Pradesh	6	7,687.70	938	3,517	-	-	-
25.	West Bengal	2	2,052.55	4	3	3	1.31	1.27
	TOTAL	118	1,80,145.79	19,184	62,801	335	1,680.55	1,591.71

Source: Ministry and State authorities

Annexure 1.6
(Refer para 1.11)

Verification of Action Taken by the Ministry on the recommendations of the PAC

Recommendations of 68 th Report of PAC during Fifteenth Lok Sabha and Action Taken thereon			
Sl. No.	PAC (2012-2013)	Action Taken by the Ministry	Audit Comments
1.	<ul style="list-style-type: none"> Comprehensive survey and investigations should be initiated immediately in regard to all Preliminary Reports. DPRs must be insisted upon for all the projects. Ministry must ensure the BCRs for all projects are properly worked out, based on validated and verifiable data assumptions relating to costs, revenues and cropping patterns, etc. 	<ul style="list-style-type: none"> No project is being cleared on the basis of preliminary report. State Governments are instructed to prepare DPRs as per Guidelines of Ministry. The Ministry would ensure that data related to cropping pattern, productivity, rate of produce etc. has to be duly vetted by State Agriculture Department for calculation of BCR. 	<ul style="list-style-type: none"> DPR was not prepared in case of one project. In 35 MMI projects, there were deficiencies in DPRs as compared to the stipulations in Ministry's guidelines. <i>(Para 2.4)</i> In 28 MMI projects and 82 MI schemes of nine States, uniform parameters for calculation of BCR were not adopted. <i>(Para 2.5)</i>
2.	Ministry should treat projects, where the structures are completed but actual utilization of the targeted irrigation potential is not confirmed, as non-commissioned.	MoWR has initiated action for taking up the project under CAD&WM <i>pari passu</i> with AIBP with a view to ensure early utilization of created irrigation potential.	Cases of incomplete projects, treated as complete were noticed in case of nine MMI projects and 14 MI schemes. <i>(Para 4.2.1 and 4.3.1)</i>
3.	The field visits undertaken by the Ministry should invariably take due cognizance of the delays in project implementation and suggest all out concerted measures to obviate the same.	<ul style="list-style-type: none"> The process of monitoring by CWC and its field offices is being critically reviewed to put in place a revised process for monitoring with emphasis on identification of the bottlenecks and recommending measures for minimizing the delays. Further, to ensure adherence to prescribed frequency of monitoring, it is proposed to associate independent experts/organization. 	<ul style="list-style-type: none"> There was persistent shortfall in monitoring by CWC. <i>(Para 5.2.1)</i>
4.	Ministry should initiate thorough probe into all such cases where the incomplete/ non-commissioned projects have been certified as completed projects by the State Government authorities	Noted for compliance.	<ul style="list-style-type: none"> Out of 30 MMI projects reported as completed, nine were found incomplete. In case of MI schemes, 14 MI schemes were found incomplete and 41 MI schemes were found to be defunct. <i>(Para 4.2.1, 4.3.1 and 4.3.2)</i>

Recommendations of 68 th Report of PAC during Fifteenth Lok Sabha and Action Taken thereon			
Sl. No.	PAC (2012-2013)	Action Taken by the Ministry	Audit Comments
5.	Ministry should persuade the State governments to resolve issues of land acquisition. Release of funds should invariably be linked with the satisfactory progress in land acquisition process. An effective institutional mechanism should be instituted to coordinate with various authorities concerned.	Release of funds for a particular year will be made only when land required for work of that year is in possession of the State Government. The States have been requested to form Project/State Level Committees to monitor the projects which would take care of coordination related issues. Further, it is also proposed to lay due emphasis on these issues during the process of monitoring.	<ul style="list-style-type: none"> In case of 56 MMI projects, land acquisition had not been completed. (Para 4.6) There were clearance related issues in 22 MMI projects. (Para 4.8) Although CWC monitoring reports highlighted the issues of pending land acquisition in four cases, corrective action were yet to be completed by the States /Project Authorities. (Para 5.2.1.2)
6.	The shortfall of Irrigation Potential should be addressed at the highest level so that optimum utilization of irrigation potential may be realized at the earliest under this programme.	Ministry has initiated action for taking up the project under CAD&WM <i>pari passu</i> with AIBP. Further, State Governments will also be requested/advised not to divert irrigated agriculture land to non-agriculture purposes.	There was overall gap of 35 <i>per cent</i> between IP created and IP utilized in 115 MMI projects. (Para 4.5.2)
7.	Ministry should take immediate steps to ensure that the State Governments execute irrigation projects in phases in a synchronized manner, so that the benefits of irrigation water can flow to the farmer when one phase is fully completed.	State Governments have been told to lay due emphasis on construction planning and strictly adhere to the approved Plan.	Test check disclosed incorrect phasing of works in 10 MMI projects and four MI schemes pertaining to seven States. (Para 4.9.2)
8.	Ministry should leave no stone unturned in ensuring that the potential created is gainfully utilized.	MoWR has initiated action for taking up the project under CAD&WM <i>pari passu</i> with AIBP with a view to ensure early utilization of created irrigation potential.	There was 35 <i>per cent</i> shortfall in IP utilization as compared to IP created. (Para 4.5.2)
9.	Nodal Ministry 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.	The recommendations have been noted for strict compliance.	Ministry did not convert Grant in to loan in any case out of 105 cases having time over run. (Para 3.10)
10.	The Committee have learnt that Ministry of Water Resources have put in place a mechanism to check diversion of funds, unauthorized expenditure and other financial irregularities.	The recommendations have been noted for strict compliance.	There were instances of diversion of fund amounting to ₹ 1,578.55 crore. (Para 3.6)

Recommendations of 68 th Report of PAC during Fifteenth Lok Sabha and Action Taken thereon			
Sl. No.	PAC (2012-2013)	Action Taken by the Ministry	Audit Comments
11.	Committee recommended that the Ministry must ensure the equitable distribution of Central funds to the States based on the predefined criteria i.e. population dependent on agriculture, Ultimate irrigation Potential (UIP) yet to be fulfilled, the past performance of the States. Ministry and CWC must release the AIBP funds well in time.	Efforts are made by MoWR to seek and obtain the proposals from State Governments and processing the same for forwarding to Ministry of Finance for release of funds in time.	Ministry released (2008-17) an amount of ₹ 6,747.46 (35 per cent) for MMI projects and ₹ 2,725.55 crore to MI schemes at the fag end of the corresponding years, which includes 11 instances of release after close of FY. <i>(Para 3.2)</i>
12.	The Committee also noted that Water User Associations, was absent or practically non-functional in projects test checked in 21 States. The arrangements for handing over completed projects to farmers/water user associations had not been operationalized with respect to many projects.	The Ministry has circulated (1976) a model bill to all the States for enactment of a law on Participatory Irrigation Management and constitution of Water Users Association.	Eight States had not formed WUAs. <i>(Para 5.6.1)</i>
13.	Ministry should ensure that the State governments expedite setting up Water Resources Regulatory Authorities/ Commissions and make adequate provisions in their respective State budgets for the maintenance of infrastructural assets of the projects.	The Ministry has circulated (1976) a model bill to all the States for enactment of a law on Participatory Irrigation Management and constitution of Water Users Association.	Eight States had not enacted laws on Participatory Irrigation Management. <i>(Para 5.6.1)</i>
14.	Monitoring visits must be augmented suitably in consonance with the instant guidelines and the detailed inspection reports must be submitted to the Union as well as State Governments. Further, the Remote Sensing Technology needs to be harnessed and effectively used in 22 States.	The process of monitoring by CWC and its field offices is being critically reviewed. Independent agencies like National Remote Sensing Centre (NRSC) and other agencies have been contacted for assistance in monitoring and evaluation.	There were persistent shortfall and deficiencies in monitoring by CWC and State Government. <i>(Para 5.2.1.1 and 5.5)</i> Use of remote sensing was very limited for monitoring under AIBP. <i>(Para 5.4)</i>
15.	The Committee note with concern that there is no institutional arrangement in place for coordination amongst the State Governments, Planning Commission, CWC etc. The Ministry has assured that compliance of the suggestions made in the monitoring reports will be pursued vigorously.	The process of monitoring by CWC and its field offices is being critically reviewed. Independent agencies like National Remote Sensing Centre (NRSC) and other agencies have been contacted for assistance in monitoring and evaluation.	There was persistent shortfall in monitoring by CWC despite reduction in the number of visits to be undertaken after 2013 AIBP guidelines. Further, the role of independent agencies like NRSC and other agencies were very limited as their coverage was not comprehensive. <i>(Paras 5.2.1.1 and 5.4)</i>

Recommendations of 68 th Report of PAC during Fifteenth Lok Sabha and Action Taken thereon			
Sl. No.	PAC (2012-2013)	Action Taken by the Ministry	Audit Comments
16.	The Ministry should ensure rectification of gaps and deficiencies found by the National Remote Sensing Centre pursuing it vigorously with the State Governments.	As submitted earlier, the reports in respect of 17 projects were conveyed to the respective State Governments.	There were gaps in the data on IP given by the States and the Ministry. <i>(Para 5.3.2)</i> NRSC also reported gaps in the data provided by the State governments. <i>(Para 5.4)</i>
17.	The Committee recommended in unequivocal terms that in all kinds of projects i.e. major/medium/minor irrigation projects, the availability of water should invariably be ensured till the tail end.	The process of monitoring is being reviewed to effectively address quantitative as well as qualitative aspects.	There were four cases of inaccurate assessment of water availability and variations in quantity of water available for projects. <i>(Para 2.4)</i>
18.	Vigorous efforts should be made for creating irrigation potential for Drought prone areas and Desert prone areas in a time bound manner. This would in turn bring food security not only for these areas but also for the entire country as well.	Ministry moved a note for funding of ongoing as well as new projects under AIBP benefitting DDP areas on a par with DPAP areas i.e. 90 <i>per cent</i> central assistance to the eligible cost of works.	As per 2013 AIBP guidelines, a project benefiting Desert Development Programme (DDP) area/ Drought Prone Area were treated on a par with those benefiting DPAP areas and the new projects were eligible for CA at 90 <i>per cent</i> Grants. Under PMKSY, the proportion of Central share for AIBP from October 2015 onwards was revised to 60 <i>per cent</i> in case of Special Areas in non-SCSs. <i>(Para 1.5)</i> Six projects under DPAP were incomplete with time overrun ranging from two to six years. <i>(Para 4.2.1)</i>

Annexure 2.1
(Refer para 2.3)

Irregular inclusion of MMI projects in AIBP

(Amount in ₹ crore)

Sl. No.	Name of State	Name of the project	Category of project	Year of inclusion in AIBP	Sanctioned cost (latest)	CLA/CA released	Remarks
			A	B	C	D	
ERMs sanctioned in States already having projects under AIBP							
1.	Jammu & Kashmir	Modernisation of Kandi canal	ERM	2007-08	53.70	16.20	Although the State already had MMI project and availing fund under AIBP, ERM was included under AIBP.
2.		Modernisation of Dadi canal	ERM	2006-07	49.95	34.50	
3.		Restoration and modernization of Main Ravi Canal	Priority	2011-12	66.67	36.28	
4.		Modernization of Ahji Canal	ERM	2008-09	20.51	12.09	
5.	Karnataka	Restoration of Bhimasamudra Tank	ERM	2009-10	9.38	3.48	
6.	Kerala	Chitoorpuzha	ERM	2010-11	34.57	5.85	
7.	Uttar Pradesh	Modernisation of lahchura Dam	ERM	2005-06	328.82	66.90	
8.		Improving Irrigation Intensity of Hardoi Branch	ERM	2006-07	135.17	24.79	
9.		Restoration of Sarada Sahayak Canal System	ERM	2009-10	317.25	39.37	
TOTAL					1,016.02	239.46	-
Projects Without clearance from Planning Commission							
10.	Karnataka	Varahi	Major	2007-08	569.53	99.63	Without the approval of PC.
11.	Maharashtra	Hetwane	Medium	2002-03	329.90	50.50	
12.		Aruna	Medium	2009-10	669.08	70.54	
13.		Arjuna	Medium	2009-10	476.49	80.51	
		TOTAL			2,045.00	301.18	
Projects not in advanced stage							
14.	Andhra Pradesh	Swarnamukhi	Medium	2005-06	52.04	11.86	Expenditure (₹ 12.50 crore) was only 24 per cent against ₹ 52.04 crore.
15.		Tadipudi LIS	Major	2006-07	467.70	48.22	Expenditure was only ₹ 91.22 (24.20 per cent) as on March 2006.
16.		Tarakarama Thirtha Sagaram	Medium	2005-06	471.32	33.00	Expenditure was Nil up to March 2005.
17.	Himachal Pradesh	Balh Valley Left Bank	Medium	2009-10	103.78	55.22	Expenditure was only ₹ 10.52 (16.90 per cent) as on March 2009 &

Sl. No.	Name of State	Name of the project	Category of project	Year of inclusion in AIBP	Sanctioned cost (latest)	CLA/CA released	Remarks
			A	B	C	D	
							physical progress was 60 per cent of Item-1 (out of 10 items) of Head work component and less than five per cent of component-8 i.e. lift system from tube wells.
18.	Jammu & Kashmir	Prakachik Khows Canal	Priority	2007-08	53.32	31.65	Expenditure was ₹ five lakh (14 per cent) only out of sanctioned cost of ₹ 35.43 crore and physical progress was Nil.
19.	Karnataka	Guddada Mallapura LIS	Medium	2009-10	115.40	79.36	Expenditure was only ₹ 16.36 crore (14 per cent) as on March 2009
20.	Maharashtra	Lower Pedhi	Major	2008-09	594.75	223.60	Expenditure was ₹ 3.40 crore (1.20 per cent) against estimated cost of ₹ 283.10 crore upto March 2008.
21.		Warna	Major	2005-06	1,256.77	48.37	Expenditure was only ₹ 357.52 crore (28.44 per cent) against estimated cost of ₹ 1,256.77 crore upto March 2005.
22.		Sangola Branch Canal	Major	2007-08	937.92	140.37	Expenditure was only ₹ 76.41 crore (26.55 per cent) against estimated cost of ₹ 287.77 crore upto March 2007.
23.	Odisha	Rukura Tribal	Medium	2009-10	296.98	70.92	Expenditure was ₹ 42.84 crore (27.55 per cent) upto March 2009 and Physical progress upto March 2010 was nil except land acquisition (97 per cent for dam, 47 per cent main canal)
24.	Telangana	Flood flow canal of SRSP	ERM	2005-06	5,940.09	382.40	Expenditure was ₹ 451.45 crore (33.91 per cent) of estimated cost of ₹ 1,331.30 crore at the time of inclusion. As on 08.12.05 Physical progress of headwork was nil and land

Sl. No.	Name of State	Name of the project	Category of project	Year of inclusion in AIBP	Sanctioned cost (latest)	CLA/CA released	Remarks
			A	B	C	D	
							acquisition and earthwork of main canal was 37 per cent and 27 per cent respectively.
25.		Palemvagu	Medium	2005-06	221.48	9.54	Expenditure was ₹ 7.42 crore (25.47 per cent) of estimated cost of ₹ 29.13 crore.
26.		J. Chokka Rao, LIS	Priority	2006-07	13,445.44	1,787.69	Expenditure was ₹ 972.18 crore (16.16 per cent) upto 31.3.06 and physical progress upto March 2006 range between 0.5 per cent and 16 per cent.
27.	Uttar Pradesh	Madhya Ganga Canal Phase-II	Major	2008-09	2,865.11	191.95	Expenditure was ₹ 26.175 crore only which is insignificant (2.5 per cent) as compared to project cost of ₹ 1,060.76 crore (2008-15)
		TOTAL			26,822.10	3,114.15	
No assured water supply to one lakh hectare							
28.	Jharkhand	Gumani	Medium	1997-98	185.76	31.40	The projected gross command area of three projects was less than one lakh hectare as required under provisions of the AIBP guidelines.
29.		Sonua	Medium	1997-98	82.65	19.24	
30.		Surangi	Medium	1997-98	41.17	13.28	
		TOTAL			309.58	63.92	

Annexure 2.2
(Refer para 2.4)

Deficiencies in DPR

Sl. No.	States	Name of project	Issues
MMI Projects			
1.	Andhra Pradesh	Tarakrama Thirthasagaram	A diversion canal was included in the DPR (November 2003) after conducting departmental survey and investigation. During execution of work, the department noticed (March 2015) that there was an archaeological monument in the alignment of the canal necessitating the department to change the alignment indicating improper alignment of the canal in the DPR.
2.		Gundlakamma Reservoir project	The envisaged IP creation from the project was 32,399 ha. Due to non-identification of land (August 2009) for creation of IP of 3,604 ha within the command area of the project, CE proposed to the State government (August 2009) to supply water to another project (Krishna Western Delta), where the IP was already created and localized. An Internal Bench Mark Committee appointed by the State government accepted (July 2010) the proposal and accordingly work was executed in Krishna Western Delta tail end area, which was not an identified one in the DPR involving cost of ₹ 7.63 crore.
3.		Velligallu	Delay of five years in approval of DPR.
4.		Swarnamukhi	The EPC contract agency conducted a detailed investigation and identified IP of 4,648 ha. However, only 3,644 ha could be irrigated and there was no further ayacut available due to formation of fish ponds by Ayacutdars in the proposed ayacut and ayacuts converted into residential/commercial plots.
5.	Bihar	Durgawati	DPR was devoid of construction plan (activity wise-technical break-up of the project) describing the phases of project and the expected time for completion.
6.		Punpun	
7.	Goa	Tillari	Overlapping of command area of 18.24 ha was also included in another Minor Irrigation scheme (Assonora Bandara).
8.	Himachal Pradesh	Sidhata	The project was revised (2011) due to enhancement of labour rates and change of geological strata in tunnel anticipated before floating the tender. However, the EE of division replied that no change in geological strata was effected in between the initial and final stage of project execution. The division also failed to provide the results of geological strata observed as part of survey and project investigations initially and/or during execution, etc. Thus, the increase in the project cost was unjustified in view of no change in geological strata of the project.
9.		Shahnehar	The initial DPR of the project had inadequate provision for cross drainage works (Aqueducts) for distribution works. The construction of additional aqueducts in Distributary D1 and D2 necessitated additional expenditure of ₹ six crore for completion of the project.

Sl. No.	States	Name of project	Issues
10.	Jammu & Kashmir	Modernisation of Ranbir Canal	Hydrological aspects such as catchment area, rainfall, and runoff flood, etc. were missing.
11.		Kandi Canal	Meteorological data such as soil survey, water logging, salinity, drainage was found missing.
12.		Modernisation of Main Ravi Canal	Hydrological as well as meteorological aspects were missing.
13.	Karnataka	Ghataprabha stage-III	Command Area for the project (i.e. 1,77,822 ha) was assessed by including the atchkat area of 20,556 ha, which was covered under Sangam Branch Canal. Later, this area was reduced from the Ghataprabha Stage-III and as a result the ultimate irrigation potential area was reduced.
14.		Upper Tunga	<p>As per the original sanction, the main canal had to be constructed up to 270 km. However, it was decided by the Company to restrict the length of the main canal up to 258 km as the balance land was coming under urban development area. Approval of GoK and CWC had not been obtained for restricting the length of the main canal. The survey conducted for initial sanction for the work was defective as the canal passing through the city was apparently known. While reducing the length of the main canal to 258 km, the Company has not discussed the impact of this decision on the irrigation potential to be created.</p> <p>The alignment of Upper Tunga Project Main Canal from Km.212 to Km.217 initially proposed required controlled blasting. It was later modified (March 2012) at the time of sanction to the estimate to avoid canal running in deep cut and village limits of Somanakatte-Basavankatte. During execution of the work, the portion from Km.212 to Km.213.220 could not be tackled as the farmers demanded change of alignment in this reach. The contract was rescinded and a new tender notification was issued (22.02.2017) for the balance work. However, the land is yet to be acquired. Modifying the original alignment resulted in extra expenditure of ₹ 1.42 crore (as per the revised estimate).</p>
15.	Madhya Pradesh	Sindh Phase-II	Assessment of command area with respect to data was not shown separately in DPR of any project.
16.		Bansagar Unit-II	
17.	Maharashtra	Arjuna	Due to higher water availability in the catchment area than the quantity assessed in original DPR, the height of earthen dam was increased from 61.20 m to 70.35 m to take the benefit of more water availability to create more storage involving cost implications of ₹ 29.99 crore in Arjuna project.
18.		Aruna	Height of earthen dam was increased from 70.41 m to 80.41 m to create more storage due to inadequate water availability in the catchment area, involving cost implication of ₹ 170.82 crore.
19.		Krishna Koyna LIS	Inadequate survey and investigation leading to change in design. Delay of four years in approval of DPR.

Sl. No.	States	Name of project	Issues
20.		Warna	Reduction in the length of Right Bank Canal up to 60 km from 117 km as per recommendations (June 2016) of the State Level Technical Advisory Committee (SLTAC), Nasik indicating improper assessment of the length of canal.
21.		Hetwane	Inadequate survey and investigation leading to modifications of structural engineering.
22.		Sangola Branch	Inadequate survey and investigation leading to change in design.
23.		Dhom Balakwadi	Inadequate survey and investigation leading to change in design.
24.		Lower Wardha	Delay of 25 years in approval of DPR.
25.		Wang	Delay of six years in approval of DPR.
26.		Tillari	Deficiencies in surveys.
27.	Telangana	J Chokha Rao (Priority-I)	Water at the intake point could be lifted for only 130 days instead of 170 days as planned, due to assessment of water availability at a distance of 13 km from the intake point. Deletion of net CCA of 8,485.61 ha from the command area due to overlapping of the area with Indiramma Flood Flow Canal (IFFC) Phase-II ayacut indicating improper assessment of command area.
28.		Palemvagu	A gated spillway was initially proposed in the river bed of Palvemvagu Project. The Technical Committee of Central Design Organisation, Hyderabad suggested (May 2005) un-gated Spillway instead of gated spillway, owing to the fact that the project site was situated in a remote and disturbed area of Khammam District. Accordingly, un-gated spillway on the right flank of Dam was constructed. Suggestion (November 1993) of the CWC at the time of vetting the proposal that the maximum flood discharge (MFD) needs to be reviewed again was not complied with by I&CAD Department. It was only after two breaches to the dam (August 2006 and August 2008) that the Chief Engineer, Hydrology re-examined the MFD and assessed it as 86,000 cusecs instead of 50,000 cusecs originally contemplated. An Experts Committee constituted (December 2008) after the two breaches recommended to construct a gated spillway at a suitable location in the river bed to accommodate the increased MFD. State Government accorded (October 2010) administrative approval of ₹ 81.16 crore for construction of gated spillway in the gorge portion. Accordingly, a gated spill was constructed (March 2017) with at a cost of ₹ 125.44 crore. Audit observed that the provision made in the original estimate for the gated spillway structure was only ₹ 15.54 crore. Further, audit also observed that the embankment of bund already executed with a cost of ₹ 10.10 crore ¹ had to be dug up again for construction of spillway making the expenditure

¹ (8,27,748.20 X 147 - tender percentage of 17.99 % = ₹ 10,10,05,725.78)

Sl. No.	States	Name of project	Issues
			wasteful. Moreover, due to washing out of the embankment already executed during the floods, the expenditure of ₹ 11.13 crore also became wasteful due to improper fixing MFD. The consequent construction of un-gated spillway structure for lesser MFD also resulted in avoidable extra expenditure of ₹ 109.90 crore (₹ 125.44 crore - ₹ 15.54 crore).
29.	Telangana	Sri Ram Sagar Stage Phase II	<p>The water requirement for Stage I and Stage II was 163.69 Thousand Million Cubic (TMC) Feet. The estimated water availability for both SRSP-I and SRSP-II was 180.19 TMC from three reservoirs viz. SRSP-146.35 TMC, Kadam-23.41 TMC, Lower Manair Dam (LMD)-10.43 TMC. However, LMD reservoir did not have own catchment area since 1990 and could not provide water of 10.43 TMC to the project as envisaged. Besides, the Department abandoned (2002) the area to be served by Kadam reservoir due to problems in acquisition of forest land. As such, 23.41 TMC of water proposed from Kadam reservoir, was also not available for this project. This indicates lapses in assessment of water availability of the project thereby leading to gaps in IP.</p> <p>CCA of 17,018 ha was reduced as the area was also covered another project (Nagarjuna Sagar Left Canal Project, Musi and other distributories).</p> <p>Construction/Re-construction of two balancing reservoirs was not indicated in the DPRs. As result, the issue of Project Displaced Families on account of re-construction of Mylarm balancing reservoir was not included in the Rehabilitation and Resettlement (R&R) clearance and Environmental clearances.</p>
30.		Sri Komaram Bheem	The project was included in 2006-07 as medium irrigation project with 9,915 ha irrigation potential under left main canal. The Government permitted (September 2005) creation of additional IP of 8,688.45 ha raising water requirement from 5.04 TMC to 8.68 TMC. Thus, the project which was started with an IP of 9,915 ha as a medium irrigation project was now revised to 18,618 ha which comes under Major project Category (initially it was medium project category).
31.		Indiramma Flood Flow Canal	CCA of 8,094 ha was reduced due to deletion of Combined Reservoir due to objection from villagers.
32.		Rajiv bheema LIS (Major)	Overlapping of ayacut in package 27 to an extent of 4,217 ha, which was already covered under Package 28 of the Mahathma Gandhi Kalwakurthy Lift Irrigation Scheme.
33.	Uttar Pradesh	Modernisation of Lahchura Dam and Madhya Ganga Phase-II Project	Huge variations in quantities of items of works was found which indicated that detailed surveys and investigations was not carried out before preparing DPRs of these projects. Increase in item of works was upto 62 times whereas decrease in item of works was upto 99 per cent.
34.		Madhya Ganga Phase-II	Concrete lining in 66.20 km length was sanctioned in July 2007 for ₹ 117.87 crore. The lining work in canal's inner slopes and bed was executed upto 31.55 km only and after this point bed lining was stopped in the year 2016 for the

Sl. No.	States	Name of project	Issues
			reason that lining in canal's bed would restrict ground water recharge. Thus, the matter of whether lining in canal's bed was required, was not examined during preparation of DPR. If bed lining was not required to recharge ground water, the expenditure incurred on bed lining could have been avoided. This indicated lack of proper study before preparing DPR and execution of works.
35.		Bansagar Canal	Water was to be fed from Bansagar Reservoir to Adwa Barrage through 71.494 km long feeder channel of 46.46 cumec capacity. The feeder channel was to pass through 35.90 km long existing Aad Nala. As the capacity of the feeder channel was 46.46 cumec, the hydrology of Aad Nala should have been assessed to know whether the feeder channel would be able to pass through the Nala in its full capacity. Audit noticed that the capacity of the Aad Nala was not assessed in DPR. Therefore, there was no assurance that Aad Nala had adequate carrying capacity to allow passage to the water of Bansagar Feeder Channel when the canal would run in its full capacity
MI Schemes			
1.	Arunachal Pradesh	Cluster of MI schemes under Bana Block	Project proposal with estimated cost of ₹ 98.00 lakh contained only survey and estimates of sub MIPs. Important information such as BC ratio, salient features of the project, project phasing/ schedule, Index maps, etc. were not included in the project proposal.
2.		Cluster of MI schemes at Kukurjan, Old Ganga MI scheme, etc. under Itanagar Sub-Division	It was approved for the cost of ₹ 1.43 crore with physical target of 79 ha. Audit scrutiny of the DPR revealed that the project consists of seven sub MI schemes whose total targeted area as per the survey reports was 270 ha. Thus, the information given in the DPR regarding the coverage of ha was not in line with the survey.
3.	Madhya Pradesh	Kachnari Diversion scheme	The canal length of 3,420 m could not be constructed due to non-availability of actual command area (CCA of 220 ha) on site during execution. This showed that the availability of command area had not been correctly assessed in the DPR. Non-completion of canal rendered the expenditure amounting to ₹ 3.21 crore on the project wasteful.
4.	Maharashtra	Chandrabhaga barrage	The work of construction of the barrage was completed in June 2015 at a cost of ₹ 188.96 crore but the canal could not be constructed due to location of command area at a higher level than the submergence area, indicating improper survey and planning and resulted in blocking of huge expenditure of ₹ 188.96 crore. Besides, the water could not be stored in the barrage due to non-rehabilitation of two villages coming under submergence.
5.	Nagaland	Alachila MI scheme (Mokokchung), Balijan MI scheme (Dimapur), Balughoki MI scheme (Dimapur), Cluster-II MI scheme (Dimapur), Khekiho RWH (Dimapur),	DPRs of 12 sampled MI schemes did not have meteorological data, soil surveys, hydrological aspects like monsoon rainfall, nature of catchment area, existing water availability of catchment area, ground water potential, etc. Although the independent monitoring team (NABCONS Pvt. Ltd.) pointed out these deficiencies in December 2016, STAC approved the DPRs without the

Sl. No.	States	Name of project	Issues
		Upper Amaluma MI scheme (Dimapur), Ralan MI scheme (Wokha), Krazhol MI scheme (Kohima), Kiyekaki MI scheme (Kohima), Chenyak MI scheme (Tuensang), Choklotso (Tuensang) and Shopong MI scheme (Tuensang)	aforementioned vital data.
6.	Tripura	Pratyekroycherra diversion scheme, Duraicherra diversion scheme, Chandukcherra diversion scheme, Purba Nadiapur LI scheme, Taltala LI scheme, Rabia drafida para LI scheme, Shankhola LI scheme and Kalashati para LI scheme	In case of eight out of the nine selected MI schemes, DPRs were not prepared. Instead of DPRs, the State Government submitted project proposals indicating the targeted CCA and estimated cost to the GoI for funding. The Department stated that preliminary survey and investigations were carried out, but these reports were not made available to audit.

Annexure 3.1
(Refer para 3.1)

Salient features of new funding arrangement under Long Term Irrigation Fund (LTIF)

To cater to the huge fund requirement and ensure completion of large number of major and medium irrigation projects, GoI announced (2016-17) for creation of dedicated Long Term Irrigation Fund (LTIF) in NABARD. The salient features are-

- Assessment of total requirement of ₹ 77,595 crore (as on 1 April 2012) for completion of 99 identified priority projects.
- Creation of dedicated LTIF in NABARD with an initial corpus of ₹ 20,000 crore for funding of Central and State Share for the identified projects under PMKSY.
- Prescribed sources for initial corpus were:
 - Budgetary Allocation from GoI, including additional share capital contribution by the Ministry of Finance (MoF), GoI to NABARD specifically on account of LTIF;
 - Direct market borrowings by NABARD; and
 - Bonds raised by NABARD, fully serviced for entire bond tenure by the MoF, GoI by making suitable provision in the budget for the respective years.
- The MoF, GoI and MoWR, RD&GR to decide about raising of cost free funds by NABARD for 2017-18 to 2019-20 at the time of budget.
- The Extra Budgetary Resources (EBR) through GoI service Bonds in required proportion blended with regular market borrowing to ensure lending rate of six *per cent* per annum.
- Approval of MoF (October 2016) for raising of EBR of ₹ 6,300 crore as GoI fully serviced bonds during 2016-17 for financing of prioritized projects under PMKSY.
- National Water Development Agency (NWDA), a society registered under Societies Registration Act, 1860 and functioning under MoWR, RD&GR to borrow resources under LTIF for Central share.
- The Ministry released ₹ 3,246 crore comprising ₹ 825 crore as CA and ₹ 2,413 crore through NABARD in 2016-17. An amount of ₹ 3,334 crore was released by NABARD to the State Governments.
- For lending of Central portion, Memorandum of Agreement (MoA) was signed in September 2016 amongst NWDA, MoWR, RD&GR and NABARD. In respect of loan for State share, a separate MoA to be signed by the respective State Government, MoWR, RD&GR, RBI/Principal Banker, NABARD and NWDA (as applicable).
- Repayment of principal loan amount by NWDA in quarterly instalments in 15 years and the quarterly payment of interest. During the moratorium period also, NWDA to service the interest. The interest rate to be six *per cent* for 2016-17 (inclusive 0.60 *per cent* margin of NABARD).
- LTIF Interest Fluctuation Reserve Fund (LIFRF) within NABARD to adjust the difference between the actual weighted average cost (including zero cost funds from GoI) of mobilization of funds plus a mark-up of 0.60 *per cent* and actual lending rate. An Annual Audited Statement of LIFRF to be provided to GoI by NABARD and balance in LIFRF to be passed on to GoI, after all the repayments of loan and interest under LTIF are received by NABARD.
- Social monitoring by making available basic details of projects in public domain and generate awareness among the ultimate beneficiaries.

Annexure 3.2
(Refer para 3.2.1)

Short release of Central Assitance

(Amount in ₹ crore)

Sl.No.	Name of State	No. of projects	Budget provision	CA to be released	CA released	Short release of CA	Remarks
MMI projects							
1.	Andhra Pradesh	3	677.38	232.51	143.55	88.96	Govt released first instalment of central assistance during 2006 and 2007 to the projects. The State Government submitted the statement of expenditure belatedly resulting in non-release of the second instalment of central share.
2.	Assam	4	891.00	802.00	389.00	413.00	Compared to the budgetary allocation, releases of funds were not adequate.
3.	Bihar	3	294.83	193.45	143.00	50.45	-
4.	Chhattisgarh	4	-	349.14	144.00	205.14	The department did not make any efforts to get the outstanding CA.
5.	Gujarat	3		7,052.78	4,655.00	2,397.78	-
6.	Jharkhand	1	-	4,624.00	1,279.00	3,345.00	The State Government submitted (March 2013 and August 2015) utilisation of grants of ₹ 335.54 crore released during 2011-12 and ₹ 515.72 crore during 2012-13 to the Ministry with delays of 310 days and 832 days respectively which might have led to short release of CA during the said period.
7.	Karnataka	2	-	1,187.00	78.00	1,109.00	The proposal for CA for NLBC project amounting to ₹ 270 crore for the year 2014-15 was approved by CWC, but only ₹ 70 crore was released. Subsequently, in 2015-16, CA proposal amounting to ₹ 603.60 crore was rejected by the CWC for want of audited statement of expenditure and the discrepancies in the

Sl.No.	Name of State	No. of projects	Budget provision	CA to be released	CA released	Short release of CA	Remarks
							expenditure statement (2014-15) submitted to CWC regarding physical and financial progress amounting to ₹ 310 crore. The Dudhganga project achieved a financial progress of ₹ 51.13 crore as on 31.03.2012, the Company has been sending proposals for CA for the cost incurred even after 2011-12. However, no assurance from the CWC/Gol for continuation of the same has so far been received.
8.	Kerala	1	-	13.49	2.70	10.79	Since the department had not utilised even the first instalment (including the matching share of State) fully, GOI had not released the balance amount of CA.
9.	Odisha	7	5,681.00	2,298.00	1,744.00	554.00	The provisions made in the annual budget during 2009-17 were adequate in comparison to the expenditure.
10.	Rajasthan	1	349.00	87.00	17.00	70.00	-
11.	Telangana	6	-	4,337.00	3,702.00	635.00	Delay in land acquisition, inter departmental issues and unforeseeable ground conditions for underground excavations.
12.	Tripura	1	-	4.76	0	4.76	GOI did not release the central share due to non-submission of UCs for the already released central share, failure of the Department to complete the projects in time and non-execution of Command Area Development works.
13.	Uttar Pradesh	6	5,267.00	1,720.00	938.00	782.00	Short release by GOI was due to the reasons like non-compliance of GOI instructions, non-furnishing of utilisation certificates, etc.
			Total	22,901.13	13,235.25	9,665.88	

Sl.No.	Name of State	No. of projects	Budget provision	CA to be released	CA released	Short release of CA	Remarks
MI Schemes							
1.	Assam	30 MI schemes	246.96	222.26	118.93	103.33	-
2.	Chhattisgarh	421 MI schemes	-	1,427.62	882.92	544.70	-
3.	Jammu & Kashmir	Five MI schemes	74.86	67.38	26.68	40.70	-
4.	Rajasthan	Bhimni	44.00	15.00	8.00	7.00	-
	Total	457 MI schemes		1,732.26	1,036.53	695.73	

Annexure 3.3 A
(Refer para 3.3)

Non-release/short release of State's share in MMI projects

(Amount in ₹ crore)

Sl no.	State	Name of project	Year	State Matching share	Released	Short release
1.	Bihar	Durgawati	2015-16	60.23	13.13	47.10
2.		Punpun	2009-10	33.75	12.15	21.60
3.		Restoration of Kosi Barrage	2009-10	7.40	5.86	1.54
4.	Gujarat	Ahji IV	2008-09	6.75	3.45	3.30
5.		Bhadar II	2008-09	8.91	3.95	4.96
			2009-10	14.19	7.03	7.16
6.	Jammu & Kashmir	Tral LIS	2008-09	0.54	0.15	0.39
			2011-12	0.80	0	0.80
			2014-15	1.12	0.05	1.07
			2016-17	1.18	0.05	1.13
7.		Prakachik khowas	2009-10	0.51	0.30	0.21
			2011-12	0.90	0.40	0.50
			2013-14	0.72	0.24	0.48
8.		Modernisation of Ahji Canal	2012-13	0.56	0	0.56
9.		Modernisation of Dadi Canal	2008-13	1.00	0.48	0.52
10.	Jharkhand	Subarnarekha Multipurpose Project	2011-17	1,990.06	1,750.40	239.66
11.	Uttar Pradesh	Bansagar	2008-17	1,710.37	1,145.51	564.86
12.		Restoration of ShardaSahayak Canal	2009-14	427.09	229.12	197.97
13.		Madhya Ganga Phase II	2008-16	1,156.95	788.35	368.60
14.		Improving Irrigation Intensity of Hardoi Branch	2008-13	86.90	69.76	17.14
15.		Modernisation of Lachura Dam	2008-13	197.02	162.23	34.79
Total				5,706.95	4,192.61	1,514.34

Annexure 3.3 B
(Refer para 3.3)

Delay in release of CA by State governments

(Amount in ₹ crore)

Sl.No	State	Amount released (₹ in crore)	Delay (in days)
MMI Projects			
1.	Assam	338.95	68 to 530
2.	Jammu & Kashmir	458.23	Three to 206
3.	Maharashtra	504.69	Three to 63
4.	West Bengal	1.42	33 to 114 days
MI Schemes			
5.	Arunachal Pradesh	232.40	46 to 439
6.	Uttarakhand	584.06	Seven to 184 days
7.	Meghalaya	194.74	18 to 300 days
	TOTAL	2,314.49	

Annexure 3.4
(Refer para 3.4)

Non submission of Utilisation Certificates

(Amount in ₹ crore)

Sl.No.	State	Name of Project	CA released	UCs furnished	UCs to be furnished
MMI Projects					
1.	Andhra Pradesh	Tarakaram Tirtha Sagaram	33.00	6.19	26.81
2.	Assam	Dhansiri	383.97	179.22	204.75
3.		Champamati			
4.		Borolia			
5.		Modernisation of Jamuna Canal			
6.	Goa	Tillari	59.23	24.12	35.11
7.	Himachal Pradesh	Sidhata	163.45	96.50	66.95
8.		Balh valley			
9.	Jammu & Kashmir	Modernisation of Ahji Canal	12.09	6.48	5.61
10.	Jharkhand	Subarnarekha Project	1,278.63	1,132.88	145.75
11.	Karnataka	Ghataprabha	120.33	72.64	47.69
12.		Sri Rameshwar	62.74	10.82	51.92
13.		Bheemasamudra Tank	3.48	0	3.48
14.		Upper Krishna stage-I Phase III	422.13	134.50	287.63
15.		Guddada Mallapura	79.36	57.24	22.12
16.		Varahi	77.59	58.08	19.51
17.	Kerala	Karapuzha	8.57	0	8.57
18.		Chitturapuzha			
19.	Madhya Pradesh	Mahuar	8.55	0	8.55
20.		Singhpur	30.54	14.79	15.75
21.		Sagad	26.55	11.84	14.71
22.	Odisha	Lower Indra Irrigation	645	626.86	18.14
23.	Telangana	J.Chokka Rao	1,084.56	613.96	470.60
24.	West Bengal	Tatko	3.73	1.67	2.06
Total			4,503.50	3,047.79	1,455.71
MI Schemes					
1.	Chhattisgarh	421 MI schemes	688.37	0	688.37
2.	Jharkhand	537 MI schemes	538.64	526.54	12.10
3.	Maharashtra	2 MI schemes	19.25	0	19.25
4.	Odisha	81 MI schemes	150.55	138.58	11.97
Total			1,396.81	665.12	731.69
Grand Total			5,900.31	3,712.91	2,187.40

Annexure 3.5
(Refer para 3.7)

Unspent CA in MMI projects

(Amount in ₹ crore)

Sl. No.	State	Name of the project	Year of release	Amount of CA	Unspent CA	Period of unspent CA	Remarks
1.	Assam	Champamati	2015-16	58.07	25.23	As on 31.03.2017	No CA released in 2016-17
2.	Bihar	Durgawati	2015-16	38.75	30.30	-	No CA released in 2016-17
3.		Punpun	2009-10	11.25	8.10	-	Only ₹ 2.76 crore was released in 2015-16
4.		Restoration of Kosi	2009-10	66.66	13.94	-	No CA was released from 2009-10 onwards
5.		Goa	Tillari	2012-13	8.00	3.95	Since 01.10.2014
6.	Jammu & Kashmir	Tral LIS	2015-16	19.28	10.16	As on March 2017	-
7.		Modernisation of Kandi Canal	2007-08	10.39		Since March 2010	No CA was released from 2008-09 onwards
			2008-09	5.81	14.17		
8.	Jharkhand	Subarnarekha	2016-17	145.75	145.75	As on 31.03.2017	-
9.	Karnataka	Bheema samudra Tank	2009-10	3.48	2.70	As on 31.03.2010	No CA was released from 2008-09 onwards
			2010-11	-	2.70	As on 31.03.2011	-
			2011-12	-	0.85	As on 31.03.2012	-
			2012-13	-	0.40	As on 31.03.2013	-
10.		Guddada Mallapura	2009-10	32.40	25.73	As on 31.03.2010	-
	2010-11		24.84	18.98	As on 31.03.2011		
	2013-14		22.11	8.90	As on 31.03.2014		
	2014-15		-	2.66	As on 31.03.2015		
11.	Ghataprabha	2008-09	52.04	7.48	As on 31.03.2009	During 2009-10, ₹69.46 crore incurred against CA received of ₹56.16 crore.	
12.		Upper Krishna Stage-I	2009-10	152.98	95.47		As on 31.03.2010
			2011-12	134.50	97.77		As on 31.03.2012
13.	Telangana	J.Chokha Rao	2006-07	298.13	130.72	As on 31.03.2010	-
			2007-08	405.00	293.13	As on 31.03.2008	-
			2008-09	-	209.29	As on 31.03.2009	No CA released

Sl. No.	State	Name of the project	Year of release	Amount of CA	Unspent CA	Period of unspent CA	Remarks
							in 2008-09
			2009-10	180.00	138.16	As on 31.03.2010	₹180 crore released in 2009-10 though there is unspent balance of ₹ 209.29 crore
			2010-11	-	176.48	As on 31.03.2011	-
			2011-12	256.13	29.70	As on 31.03.2012	During 2012-13, CA was not released
14.		Rajiv Bheema LIS	2009-10	662.66	500.34	As on 31.03.2010	CA was not released after 2009-10 till adjustment of unspent CA ₹ 54.48 crore was released in 2016-17.
			2010-11	-	422.87	As on 31.03.2011	-
			2011-12	-	300.94	As on 31.03.2012	-
			2012-13	-	157.07	As on 31.03.2013	-
			2013-14	-	53.30	As on 31.03.2014	-
			2014-15	-	22.06	As on 31.03.2015	-
			2015-16	-	4.31	As on 31.03.2016	-
15.		SRSP-II	2009-10	65.19	50.05	As on 31.03.2010	-
			2010-11	-	42.37	As on 31.03.2011	-
			2011-12	-	36.26	As on 31.03.2012	-
			2012-13	-	21.71	As on 31.03.2013	-
			2013-14	-	9.06	As on 31.03.2014	-
			2014-15	-	6.19	As on 31.03.2015	-
			2015-16	-	4.31	As on 31.03.2016	-
16.	Tripura	Manu	2010-11	26.09	25.34	As on 31.03.2011	-
			2011-12	-	19.94	As on 31.03.2012	-
			2012-13	-	16.72	As on 31.03.2013	-
			2013-14	-	12.76	As on 31.03.2014	-
			2014-15	-	7.64	As on 31.03.2015	-
			2015-16	-	3.12	As on 31.03.2016	-
			2016-17	-	2.55	As on 31.03.2017	-
17.	West Bengal	Tatko	2011-12	3.72	2.76	As on 31.03.2012	-
			2012-13	-	2.05	As on 31.03.2013	-

Annexure 3.6
(Refer para 3.9)

Rush of Expenditure in MMI projects

(Amount in ₹ crore)

Sl.no.	State	Name of the project	Year	Budget estimate	Expenditure incurred in March	Percentage of expenditure incurred in March
1.	Odisha	Lower Suktel	2008-09	78.06	65.07	83.36
			2009-10	22.59	14.79	65.47
			2010-11	28.10	9.61	34.20
			2011-12	20.40	3.78	18.53
			2014-15	34.17	10.00	29.27
			2016-17	243.94	99.13	40.64
2.		Kanupur	2008-09	125.20	59.75	47.72
			2009-10	125.05	75.43	60.32
			2010-11	165.05	36.59	22.17
			2011-12	150.10	27.46	18.29
			2012-13	150.00	24.00	16.00
			2014-15	141.00	30.45	21.69
			2016-17	165.00	26.76	16.22
3.		Rukura	2009-10	9.48	8.32	87.76
			2010-11	19.53	10.71	54.84
			2011-12	9.00	1.56	17.33
			2013-14	28.64	8.41	29.36
			2014-15	56.51	21.43	37.92
4.		Lower Indra	2011-12	144.00	34.02	23.62
5.	Rajasthan	Narmada Canal	2009-10	144.27	29.00	20.10
			2011-12	125.54	46.13	36.74
			2012-13	175.96	48.31	27.45
			2013-14	154.06	75.25	48.84
			2014-15	158.99	42.61	26.80
			2015-16	92.70	25.66	27.68
			2016-17	125.43	39.82	31.75
6.	Uttar Pradesh	Bansagar	2008-09	368.36	75.49	20.49
			2009-10	240.06	105.96	44.14
			2013-14	137.42	74.50	54.21
			2014-15	165.19	37.90	22.94
			2015-16	110.00	33.95	30.87
			2016-17	197.00	61.03	30.98
Total				3,910.80	1,262.88	

Annexure 3.7
(Refer para 3.10)

Non conversion of Grant into Loan in MMI projects

(Amount in ₹ crore)

SL. No.	State	Number of projects	Total CLA/CA released upto March 2017
1.	Andhra Pradesh	4	192.43
2.	Assam	4	472.98
3.	Bihar	2	150.49
4.	Chattisgarh	4	179.22
5.	Goa	1	255.42
6.	Gujarat	3	9,777.38
7.	Himachal Pradesh	3	321.66
8.	Jammu & Kashmir	9	403.44
9.	Jharkhand	5	1,350.79
10.	Karnataka	9	1,677.69
11.	Kerala	2	8.57
12.	Madhya Pradesh	9	2,152.41
13.	Maharashtra	24	4,518.61
14.	Odisha	7	2,472.52
15.	Rajasthan	3	1,930.39
16.	Telangana	6	3,701.80
17.	Tripura	2	85.64
18.	Uttar Pradesh	6	1,449.89
19.	West Bengal	2	19.26
TOTAL		105	31,120.59

Annexure 4.1
(Refer para 4.2.2)

Time over run in MMI projects

Sl. no.	State	Name of the project	Schedule date of completion	Actual date of completion/present status	Delay in completion (Years)
1.	Andhra Pradesh	Tadipudi LIS	October 2006	Ongoing	11
2.		Tarakarama Thirtha Sagaram	May 2008	Ongoing	9
3.		KOR Gundlakamma Reservoir Project	May 2007	Ongoing	10
4.		Swarnamukhi	March 2007	May 2008	1
5.	Assam	Dhansiri	March 1999	Ongoing	18
6.		Champamati	March 1999	Ongoing	18
7.		Modification of Jamuna Irrigation	March 2005	March 2009	4
8.		Borolia	March 1999	Ongoing	18
9.	Bihar	Durgawati	March 1999	Ongoing	18
10.		Punpun	March 2010	Ongoing	7
11.	Chhattisgarh	Maniyari	March 2013	March 2017	4
12.		Kelo Project	March 2012	Ongoing	5
13.		Kosarteda Project	March 2005	June 2013	8
14.		Mahanadi	March 2010	2010-11	1
15.	Goa	Tillari irrigation Project	March 2003	Ongoing	14
16.	Gujarat	Sardar Sarovar	March 2001	Ongoing	16
17.		Aji-IV	March 2003	2009-10	7
18.		Bhadar-II	March 2005	2010-11	6
19.	Himachal Pradesh	Shahnehar	March 2000	Ongoing	17
20.		Sidhata	March 2003	Ongoing	14
21.		Balh Valley Left Bank	March 2010	Ongoing	7
22.	Jammu & Kashmir	Tral LIS	March 2004	Ongoing	13
23.		Prakachik Khowas Canal	March 2011	Ongoing	6
24.		Rajpora LIS	March 2004	Ongoing	13
25.		Modernization of Kandi canal	March 2012	Ongoing	5
26.		Modernization of Dadi canal	March 2011	Ongoing	6
27.		Modernization of Ranbir canal	March 2003	Ongoing	14
28.		Modernization of new Pratap	March 2003	Ongoing	12
29.		Restoration and modernization of Main Ravi Canal	March 2015	Ongoing	2
30.		Modernization of Ahji Canal (ERM)	March 2010	Ongoing	7
31.		Jharkhand	Subernrekha Multipurpose Project (SMP)	March 2015	Ongoing
32.	Gumani Barrage Scheme		March 2000	Ongoing	17
33.	Sonua Reservoir Scheme		March 2000	Ongoing	17
34.	Surangi Reservoir Scheme		March 2000	Ongoing	17
35.	Panchkhero Reservoir Scheme		March 2009	Ongoing	8
36.	Karnataka	Upper Tunga Irrigation Project	March 2015	Ongoing	2
37.		Sri Rameshwar Irrigation	March 2015	March 2017	2
38.		Restoration-Bheemasamudra Tank	March 2012	Ongoing	5
39.		Dudhganga	March 2012	Ongoing	5
40.		Guddada Mallapura LIS	March 2012	Ongoing	5
41.		Ghataprabaha Stage-III	March 2000	2010-11	11
42.		Varahi	March 2012	Ongoing	5
43.		UKP stage-I	March 2005	Ongoing	12

Sl. no.	State	Name of the project	Schedule date of completion	Actual date of completion/present status	Delay in completion (Years)	
44.	Kerala	Gandorinala	March 2005	March 2010	5	
45.		Karapuzha	March 2009	Ongoing	8	
46.		Chitoorpuzha	March 2012	Ongoing	5	
47.	Madhya Pradesh	Sindh Project Phase-II	March 2001	Ongoing	16	
48.		Indira Sagar Project Canal Phase-III	March 2012	Ongoing	5	
49.		Indira Sagar Project Canal Phase-I & II	March 1999	Ongoing	18	
50.		Bansagar Unit-II	March 2008	Ongoing	9	
51.		Singhpur Project	March 2013	March 2017	4	
52.		Sanjay Sagar (Bah) Project	March 2014	Ongoing	3	
53.		Mahuar Project	March 2015	March 2017	2	
54.		Sagar (Sagad) Project	March 2014	March 2017	3	
55.		Punasa Lift	March 2012	Ongoing	5	
56.		Maharashtra	Krishna Koyna Lift Irrigation project	March 2014	Ongoing	3
57.	Wang Major Project		March 2011	Ongoing	6	
58.	Aruna Medium Project		March 2012	Ongoing	5	
59.	Lower Pedhi		March 2011	Ongoing	6	
60.	Lower Panzara		March 2012	March 2017	5	
61.	Nandur Madhmeshwar Ph-2		March 2013	Ongoing	4	
62.	Tillari Major Project		March 2008	Ongoing	9	
63.	Krishna Major Project		April 2012	2008-09	4	
64.	Tarali		March 2012	Ongoing	5	
65.	Warna		March 2009	March 2017	8	
66.	Hetwane Medium		March 2005	2008-09	3	
67.	Dhom Balakwadi		March 2012	Ongoing	5	
68.	Sangola Branch Canal		March 2012	Ongoing	5	
69.	Arjuna		March 2010	Ongoing	7	
70.	Bawanthadi		March 2008	March 2017	9	
71.	Lower Dudhna		March 2009	Ongoing	8	
72.	Lower Wardha		March 2009	Ongoing	8	
73.	Waghur		March 1999	Ongoing	18	
74.	Gul medium		March 2008	Ongoing	9	
75.	Upper Wardha		March 2000	March 2009	9	
76.	Madan tank		March 2008	2008-09	1	
77.	Pentakli		March 2009	2009-10	1	
78.	Khadakpurna		March 2010	Ongoing	7	
79.	Chandrabhaga		March 2009	2009-10	1	
80.	Odisha		Anandpur barrage/Integrated (ERM)	March 2010	Ongoing	7
81.			Telengiri (KBK)	March 2008	Ongoing	9
82.			Ret Irrigation (KBK)	March 2008	Ongoing	9
83.			Kanapur	March 2008	Ongoing	9
84.			Lower Suktel (KBK)	March 2004	Ongoing	13
85.		Lower Indra (KBK)	March 2004	Ongoing	13	
86.		Rukura Tribal	March 2014	Ongoing	3	
87.	Rajasthan	Narmada Canal project	March 2003	Ongoing	14	
88.		Modernization of Gang canal	March 2008	Ongoing	9	
89.		Indira Gandhi Nahar project, Stage-II	March 2006	Ongoing	11	
90.	Telangana	Rajiv bheema LIS- Major irrigation project	March 2012	Ongoing	5	
91.		Indiramma Flood flow canal of SRSP	March 2012	Ongoing	5	
92.		SRSP Stage-II Major/ERM	March 2011	Ongoing	6	
93.		Palemvagu	March 2010	Ongoing	7	

Sl. no.	State	Name of the project	Schedule date of completion	Actual date of completion/present status	Delay in completion (Years)
94.		J. Chokka Rao, LIS	March 2009	Ongoing	8
95.		Sri Komaram Bheem	March 2009	Ongoing	8
96.	Tripura	Manu medium irrigation project	March 1999	Ongoing	18
97.		Khowai medium irrigation project	March 1999	Ongoing	18
98.	Uttar Pradesh	Modernisation of lahchura Dam	March 2009	Ongoing	8
99.		Improving Irrigation Intensity of Hardoi Branch	March 2009	Ongoing	8
100.		Bansagar Canal	March 2004	Ongoing	13
101.		Eastern Ganga Canal	March 2008	2010-11	3
102.		Restoration of Sharda Sahayak Canal System	March 2014	Ongoing	3
103.		Madhya Ganga Canal Phase-II	March 2013	Ongoing	4
104.	West Bengal	Subarnarekha Barrage major irrigation project in Midnapore district	March 2002	Ongoing	15
105.		Tatko Medium Irrigation Project in Purulia district	March 2003	Ongoing	14

Annexure 4.2
(Refer para 4.3.2)

State-wise list of Defunct MI schemes/ sub-schemes

Sl. No.	State	Schemes
North Eastern States		
1.	Arunachal Pradesh	Singrihapa, Kukurjan, Chimpu, Old Ganga, Dariso, Pape, Upper Nallah at Peach, Budagaon, Wanghoo Nallah, Gipajang, Takhong Nallah, Gurungthanka, Khow-sirak, Sarshang, Donlok, Lalchung Nallah, Atorangok, Taho Nallah, Tari Pani, Kaling, Meka, Doimukh, Seppa East, Rupung Hissang, Sa Korong, Gobuk, Ragya Korong to Pillaklaruk, Gompak Korang to Modam and Ningmo
2.	Nagaland	Karzhoh (Ph-II), Chenyak, Shopong, Phangtiyang, Alachila, Balughoki and Ralan
3.	Sikkim	Pabongkhola to Middle Daring, Tumin Khola to Ralcy, Simuna Khola to Dochum Khet, Tari Paddy Field at Lower Jhoising, Kali Khola to Linsey Khet and Kali Khola to Middle Rateypani
4.	Tripura	Prtyekroycherra diversion scheme, Rabiadra para LI scheme, Shankhola LI scheme, Kalashati para LI scheme
Other States		
1.	Jammu & Kashmir	Dathang Irrigation Canal and PondaKhul
2.	Jharkhand	Check dam at Amgachi Nala, check dam at Rai Nala, Check dam at Biramkel Nala and Check dam to KhorhaNala
3.	Madhya Pradesh	Berkhedi Weir and Bhitri Mutmurru Tank
4.	Uttarakhand	Diyula-Khaira Katal, Diyula-Diyula, Sarai Akkar and Jamaru Kula
5.	West Bengal	Paniha Major RLI

Annexure 4.3
(Refer para 4.4)

Cost over-run in MMI projects

(Amount in ₹ crore)

Sl. no.	Name of the State	Name of the Project	Original cost	Revised cost	Cost overrun (revised – original cost)	Percentage of cost overrun
1.	Andhra Pradesh	Tadipudi LIS	376.96	568.00	191.04	51
2.		Tarakarama Thirtha Sagaram	220.11	471.31	251.20	114
3.		KOR Gundlakamma Reservoir Project	165.22	753.83	588.61	356
4.	Assam	Dhansiri	158.32	567.05	408.73	258
5.		Borolia	33.37	157.04	123.67	371
6.		Champamati	47.49	309.22	261.73	551
7.	Bihar	Punpun	69.01	658.12	589.11	854
8.		Durgawati	124.99	983.10	858.11	687
9.	Goa	Tillari irrigation Project	147.54	1,051.69	904.15	613
10.	Gujarat	Sardar Sarovar	6,406.06	54,772.94	48,366.88	755
11.	Himachal Pradesh	Shahnehar	143.32	387.17	243.85	170
12.		Sidhata	33.62	95.29	61.67	183
13.		Balh Valley Left Bank	41.64	103.78	62.14	149
14.	Jammu and Kashmir	Tral LIS	129.43	140.76	11.33	9
15.		Parakachik Khows Canal	35.43	53.32	17.89	50
16.		Rajpora LIS	29.13	70.20	41.07	141
17.		Modernisation of Ranbir canal	84.4	176.89	92.49	110
18.		Restoration and modernization of Main Ravi Canal	62.27	66.67	4.40	7
19.	Jharkhand	Gumani Barrage Scheme	83.72	185.76	102.04	122
20.		Sonua Reservoir Scheme	48.98	82.65	33.67	69
21.		Surangi Reservoir Scheme	24.91	41.17	16.26	65
22.		Panchkhero Reservoir Scheme	54.73	75.68	20.95	38
23.	Karnataka	NLBC System Tank	3,752.18	4,233.98	481.80	13
24.		Ghataprabaha Stage-III (Completed)	90.54	1,210.51	1,119.97	1237
25.		UKP stage-I, phase III	1,214.91	6,891.59	5,676.68	467
26.		Gandorinala (Completed)	7.71	240.00	232.29	3013
27.	Kerala	Karapuzha	7.60	560.00	552.40	7268
28.	Madhya Pradesh	Sindh Project Phase-II	607.67	2,045.74	1,438.07	237
29.		Indira Sagar Project Canal Phase-III	704.13	943.18	239.05	34
30.		Indira Sagar Project Canal Phase-I & II	1,154.00	2,019.82	865.82	75
31.		Bansagar Unit-II	610.33	2,143.65	1,533.32	251
32.		Omkareshwar Project Canal Phase IV (OSP Lift)	999.86	1,175.51	175.65	18
33.		Punasa Lift	464.62	488.06	23.44	5
34.		Singhpur (Completed)	200.52	242.97	42.45	21

Sl. no.	Name of the State	Name of the Project	Original cost	Revised cost	Cost overrun (revised – original cost)	Percentage of cost overrun	
35.		Indira Sagar Unit-V	628.12	742.51	114.39	18	
36.	Maharashtra	Krishna Koyna Lift Irrigation project	2,224.76	4,959.91	2,735.15	123	
37.		Lower Pedhi	283.10	594.75	311.65	110	
38.		Lower Panzara (Completed)	132.44	556.29	423.85	320	
39.		Nandur Madhmeshwar Ph-II	195.41	2,210.59	2,015.18	1031	
40.		Bawanthadi (Completed)	121.39	867.20	745.81	614	
41.		Lower Dudhna	517.41	2,341.67	1,824.26	353	
42.		Lower Wardha	542.25	2,356.58	1,814.33	335	
43.		Waghur	161.05	1,183.55	1,022.50	635	
44.		Gul	63.25	96.61	33.36	53	
45.		Upper Wardha (Completed)	26.95	951.33	924.38	3430	
46.		Pentakli (Completed)	25.80	172.45	146.65	568	
47.		Khadakpurna	497.32	1,095.92	598.60	120	
48.		Tillari Irrigation Project	830.58	1,390.04	559.46	67	
49.		Tarali Irrigation Project	795.67	1,057.63	261.96	33	
50.		Hetwane Project (Completed)	208.54	329.90	121.36	58	
51.		Dhom Balakwadi Project	475.29	684.64	209.35	44	
52.		Sangola Branch Canal Project	287.77	937.92	650.15	226	
53.		Chandrabhaga	28.86	200.29	171.43	594	
54.		Kar	78.80	170.04	91.24	116	
55.		Lal Nalla	39.08	202.51	163.43	418	
56.		Madan Tank	10.07	88.09	78.02	775	
57.		Prakasha	41.53	245.03	203.50	490	
58.		Sarangkheda	57.70	276.49	218.79	379	
59.		Tajnapur	6.17	438.70	432.53	7010	
60.		Odisha	Anandpur Barrage/ Integrated	581.40	2,990.05	2,408.65	414
61.			Telengiri	106.18	992.85	886.67	835
62.			Ret Irrigation	86.14	768.46	682.32	792
63.			Kanupur	428.32	2,438.29	2,009.97	469
64.			Lower Suktel	217.13	1,041.81	824.68	380
65.	Lower Indra		211.70	1,753.64	1541.94	728	
66.	Rukura Tribal		155.48	296.98	141.50	91	
67.	Rajasthan	Narmada Canal	467.53	2,481.49	2,013.96	431	
68.		Modernization of Gang canal	445.79	621.42	175.63	39	
69.		Indira Gandhi Nahar project, Stage-II	89.12	6,921.32	6,832.20	7,666	
70.	Telangana	Sri Komaram Bheem	202.60	882.36	679.76	336	
71.		Rajiv Bheema LIS- Major irrigation project	744.00	1,969.00	1,225.00	165	
72.		Indiramma Flood flow canal of SRSP	1,331.00	5,940.09	4,609.09	346	
73.		SRSP Stage-II	1,043.14	1,220.41	177.27	17	
74.		Palemvagu	29.13	221.48	192.35	660	
75.		J. Chokka Rao LIS	6,016.00	13,445.44	7,429.44	123	

Sl. no.	Name of the State	Name of the Project	Original cost	Revised cost	Cost overrun (revised – original cost)	Percentage of cost overrun
76.	Tripura	Manu Medium Irrigation project	44.25	98.71	54.46	123
77.		Khowai Medium Irrigation project	59.75	91.64	31.89	53
78.	Uttar Pradesh	Modernisation of Lahchura Dam	99.66	328.82	229.16	230
79.		Improving Irrigation Intensity of Hardoi Branch	105.30	135.17	29.87	28
80.		Bansagar Canal	330.19	3,148.91	2,818.72	854
81.		Eastern Ganga Canal (Completed)	258.48	892.44	633.96	245
82.		Madhya Ganga Canal Phase-II	1,060.76	2,865.11	1,804.35	170
83.	West Bengal	Subarnarekha Barrage major irrigation project in Midnapore district	215.61	2,032.79	1,817.18	843
84.		Tatko Medium Irrigation Project in Purulia district	0.99	19.76	18.77	1,896
		Total	40,943.68	1,61,715.73	1,20,772.05	295

Annexure 4.4
(Refer para 4.4.1)

Cost overrun in Projects/schemes due to change in design and scope

Sl. No.	Name of the State	Name of the Project	Increase in cost of Projects due to change in design and Scope (₹ in crore)
MMI projects			
1.	Bihar	Durgawati	31.83
2.	Gujarat	Sardar Sarovar Project	2,339.65
3.	Goa	Tillari	2.60
4.	Jharkhand	Subarnarekha	116.07
5.	Maharashtra	Krishna Koyna LIS	41.51
6.		Lower Wardha	6.43
7.		Sangola Branch canal	203.00
8.		Dhom Balakwadi	24.11
9.		Arjuna	44.01
10.		Tarali and Sangola Branch Canal	40.53
11.	Odisha	Kanupur	111.50
12.		Lower Suktel	91.86
TOTAL MMI projects			3,053.10
MI Schemes			
1.	Andhra Pradesh	Conversion of Bhavanasi Tank into Mini Reservoir	20.73
2.	Chhattisgarh	Gharjia Bathan Tank	0.86
3.	Madhya Pradesh	Barkheda Chajju Minor Tank	7.67
TOTAL MI Schemes			29.26
TOTAL			3,082.36

(Source: Information obtained from the State authorities)

Annexure 4.5
(Refer para 4.5)

IP creation and utilization of Completed MMI Projects

(Amount in ₹ crore)

Sl. no.	State	Name of the Project	IP target (ha)	IP created (ha)	IP created (in per centage)	Gap in IP creation (ha)	IP utilized (ha)	Gap in IP utilization(ha)	Percentage of IP utilized vis a vis IP created	Expenditure 2008-17
1.	Andhra Pradesh	Veligallu	9,713	9,713	100	0	9,713	0	100	15
2.		Swarnamukhi	4,656	3,651	78	1,005	3,651	0	100	0
3.	Assam	Modification of Jamuna Irrigation	42,014	41,014	98	1,000	24,284	16,730	59	32
4.	Bihar	Restoration of Koshi Barrage	8,14,510	8,14,510	100	0	4,99,540	3,14,970	61	85
5.	Chhattisgarh	Maniyari	14,515	11,515	79	3,000	11,515	0	100	93
6.		Mahanadi Project	2,64,311	2,64,311	100	0	2,55,067	9,244	97	32
7.		Kosarteda Project	11,120	11,120	100	0	3,580	7,540	32	57
8.	Gujarat	Aji-IV	3,750	3,338	89	412	466	2,872	14	19
9.		Bhadar-II	9,965	9,202	92	763	1,190	8,012	13	19
10.	Karnataka	Sri Rameshwar LIS	1,240	1,240	100	0	1,240	0	100	155
11.		Ghataprabaha Stage-III	9,963	5,344	54	4,619	5,344	0	100	189
12.		Gandorinala	1,115	964	86	151	964	0	100	42
13.	Madhya Pradesh	Singhpur Project	10,200	10,100	99	100	9,035	1,065	89	107
14.		Mahuar Project	9,500	9,500	100	0	9,500	0	100	83
15.		Sagar (Sagad) Project	17,061	17,061	100	0	17,061	0	100	158
16.	Maharashtra	Lower Panzara	6,785	5,881	87	904	1,228	4,653	21	215

Sl. no.	State	Name of the Project	IP target (ha)	IP created (ha)	IP created (in per centage)	Gap in IP creation (ha)	IP utilized (ha)	Gap in IP utilization(ha)	Percentage of IP utilized vis a vis IP created	Expenditure 2008-17
17.		Krishna	19,588	18,816	96	772	17,601	1,215	94	38
18.		Warna	87,792	3,678	4	84,114	3,678	0	100	245
19.		Hetwane	6,168	1,101	18	5,067	1,042	59	95	10
20.		Bawanthadi	27,708	24,170	87	3,538	14,822	9,348	61	394
21.		Sarangkheda	11,519	11,519	100	0	7,832	3,687	68	29
22.		Prakasha Barrage	10,307	10,307	100	0	6,872	3,435	67	30
23.		Upper Wardha	37,258	37,258	100	0	37,184	74	100	93
24.		Kar	3,244	1,880	58	1,364	1675	205	89	39
25.		Madan Tank	3,270	3,270	100	0	2,241	1,029	69	3
26.		Pentakli	3,220	2,700	84	520	985	1,715	36	13
27.		Lal Nalla	7,144	3,421	48	3,723	1,934	1,487	57	19
28.		Tajnapaur LIS	3,622	3,622	100	0	2,515	1,107	69	6
29.		Chandrabhaga	1,924	1,924	100	0	1,374	550	71	18
30.	Uttar Pradesh	Eastern Ganga Canal	1,05,000	1,04,756	100	244	88,662	16,094	85	115
Total			15,58,182	14,46,886		1,11,296	10,41,795	4,05,091		2,353

Annexure 4.6
(Refer para 4.5)

IP creation and utilization of ongoing MMI Projects

(Amount in ₹ crore)

Sl. no.	Name of the State	Name of the Project	IP target (ha)	IP created (ha)	IP created (in per centage)	Gap in IP creation (ha)	IP utilized (ha)	Gap in IP utilization (ha)	Percentage of IP utilized vis a vis IP created	Expenditure 2008-17
1.	Andhra Pradesh	Tadipudi LIS	83,609	62,138	74	21,471	62,138	0	100	182
2.		Tarakarama Thirtha Sagaram	10,000	0	0	10,000	0	0	0	118
3.		KOR Gundlakamma Reservoir Project	32,400	27,914	86	4,486	22,624	5,290	81	297
4.	Assam	Dhansiri	77,230	53,258	69	23,972	21,800	31,458	41	236
5.		Champamati	24,994	22,142	89	2,852	7,527	14,615	34	167
6.		Borolia	13,562	3,300	24	10,262	900	2,400	27	20
7.	Bihar	Durgawati	39,610	26,000	66	13,610	2,458	23,542	9	470
8.		Punpun	13,680	0	0	13,680	0	0	0	287
9.	Chhattisgarh	Kelo Project	22,810	16,815	74	5,995	0	16,815	0	521
10.	Goa	Tillari irrigation Project	14,521	11,651	80	2,870	3,246	8,405	28	545
11.	Gujarat	Sardar Sarovar Project	17,92,000	14,13,299	79	3,78,701	6,28,011	7,85,288	44	14,461
12.	Himachal Pradesh	Shahnehar	15,287	15,287	100	0	2,905	12,382	19	184
13.		Sidhata	3,150	3,150	100	0	225	2,925	7	48
14.		Balh Valley Left Bank	2,780	2,780	100	0	1,291	1,489	46	97
15.	Jammu and Kashmir	Tral LIS	5,122	4,440	87	682	1,200	3,240	27	41
16.		Prakachik Khows Canal	2,262	1,250	55	1,012	NF	0	81	34
17.		Rajpora LIS Medium	2,429	2,114	87	315	1,035	1,079	49	22
18.		Modernisation of Kandi canal	2,200	0	0	2,200	0	0	0	6
19.		Modernisation of Dadi canal	3,889	3,889	100	0	3,889	0	100	25
20.		Modernisation of Ranbir canal	55,418	54,713	99	705	54,675	38	100	80
21.		Modernisation of New Pratap	13,309	12,325	93	984	9,206	3,119	75	24
22.		Restoration and modernization of Main Ravi Canal	15,016	12,540	84	2,476	11,480	1,060	92	45
23.	Modernization of Ahji Canal	8,316	8,166	98	150	8,166	0	100	13	

Sl. no.	Name of the State	Name of the Project	IP target (ha)	IP created (ha)	IP created (in per centage)	Gap in IP creation (ha)	IP utilized (ha)	Gap in IP utilization (ha)	Percentage of IP utilized vis a vis IP created	Expenditure 2008-17
24.	Jharkhand	Subernarekha Multipurpose Project (SMP)	236846	107326	45	129,520	44,844	62,482	42	2,875
25.		Gumani Barrage Scheme	16,194	11,314	70	4,880	0	11,314	0	50
26.		Sonua Reservoir Scheme	8008	3,000	37	5008	1,000	2,000	33	16
27.		Surangi Reservoir Scheme	2,105	1,230	58	875	1,230	0	100	8
28.		Panchkhero Reservoir Scheme	3,085	1,000	32	2,085	1,000	0	100	33
29.	Karnataka	Upper Tunga Irrigation Project	25,449	16,618	65	8,831	16,618	0	100	740
30.		NLBC System Project	1,42,580	98,381	69	44,199	98,381	0	100	1,685
31.		Restoration of Bheemasamudra Tank	800	800	100	0	800	0	100	5
32.		Dudhganga	11,367	1,000	9	10,367	0	1,000	0	82
33.		Guddada Mallapura LIS	5,261	5,000	95	261	0	5,000	0	96
34.		Varahi	15,560	4,443	29	11,117	3,372	1,071	76	469
35.	UKP stage-I, Phase III	1,505	1,505	100	0	1,505	0	100	583	
36.	Kerala	Karapuzha	7,355	1,624	22	5,731	922	702	57	9
37.		Chitoorpuzha	4,964	4,820	97	144	4,820	0	100	42
38.	Madhya Pradesh	Sindh Project Phase-II	98,250	95,970	98	2,280	73,604	22,366	77	1,145
39.		Indira Sagar Project Canal Phase-III	20,700	6,000	29	14,700	5,608	392	93	743
40.		Indira Sagar Project Canal Phase-I & II	62,200	59,450	96	2,750	59,450	0	100	630
41.		Bansagar Unit-II	1,23,634	1,17,634	95	6,000	1,17,634	0	100	1,768
42.		Omkareshwar Project Canal Phase IV (OSP Lift)	57,200	54,630	96	2,570	17,000	37,630	31	313
43.		Sanjay Sagar (Bah) Project	17,807	17,807	100	0	17,807	0	100	103
44.		Punasa Lift	35,008	35,008	100	0	35,008	0	100	466
45.		Indira Sagar Unit-V	33,140	32,000	97	1,140	20,500	11,500	64	83
46.	Maharashtra	Krishna Koyna Lift Irrigation project	1,11,988	44,770	40	67,218	9,492	35,278	21	764
47.		Wang	7,068	1,023	14	6,045	295	728	29	100
48.		Aruna	9,027	0	0	9,027	0	0	0	519
49.		Lower Pedhi	17,023	0	0	17,023	0	0	0	748

Sl. no.	Name of the State	Name of the Project	IP target (ha)	IP created (ha)	IP created (in per centage)	Gap in IP creation (ha)	IP utilized (ha)	Gap in IP utilization (ha)	Percentage of IP utilized vis a vis IP created	Expenditure 2008-17	
50.		Nandur Madhmeshwar Ph-II	20,500	6,047	29	14,453	0	6,047	0	559	
51.		Tillari Major Project	9,754	5,073	52	4,681	2,618	2,455	52	269	
52.		Tarali	14,276	6,902	48	7,374	2,260	4,642	33	477	
53.		Dhom Balakwadi	18,100	10,153	56	7,947	4,942	5,211	49	460	
54.		Sangola Branch Canal	11,288	5,815	52	5,473	2,800	3,015	48	207	
55.		Arjuna	9,411	526	6	8,885	210	316	40	398	
56.		Lower Dudhna	44,482	35,983	81	8,499	4868	31,115	14	1,125	
57.		Lower Wardha	63,333	24,674	39	38,659	6,572	18,102	27	1,453	
58.		Waghur	38,570	15,992	41	22,578	9,122	6,870	57	593	
59.		Gul	3,025	3,025	100	0	1125	1,900	37	44	
60.		Khadakpurna	24,864	20,818	84	4,046	4,373	16,445	21	800	
61.		Odisha	Anandpur barrage/ Integrated	60,000	0	0	60,000	0	0	0	942
62.			Telengiri	9,950	0	0	9,950	0	0	0	687
63.			Ret Irrigation	8,500	0	0	8,500	0	0	0	382
64.	Kanupur		29,580	0	0	29,580	0	0	0	1,390	
65.	Lower Suktel		23,500	0	0	23,500	0	0	0	869	
66.	Lower Indra		29,900	18,550	62	11,350	7,000	11,550	38	1,518	
67.	Rukura		5,750	2,000	35	3,750	1,500	500	75	256	
68.	Rajasthan	Narmada Canal project	2,46,000	2,46,000	100	0	1,80,000	66,000	73	1,271	
69.		Modernization of Gang canal	96,510	96,510	100	0	96,510	0	100	279	
70.		Indira Gandhi Nahar project	9,01,397	5,89,308	65	3,12,089	5,89,308	0	100	0	
71.	Telangana	Sri Komaram Bhima	9,915	6,094	61	3,821	5,544	550	91	221	
72.		Rajiv Bheema LIS	82,153	44,446	54	37,707	44,446	0	100	1,198	
73.		Indiramma Flood flow canal of SRSP-II	93,587	0	0	93,587	0	0	0	2,990	
74.		SRSP Stage-II	1,78,066	1,31,319	74	46,747	0	1,31,319	0	532	
75.		Palemvagu	4,100	2,023	49	2,077	2,023	0	100	139	
76.		J. Chokka Rao, LIS	2,48,685	1,00,494	40	148,191	18,487	82,007	18	5,936	
77.	Tripura	Manu Irrigation project	4,198	1,220	29	2,978	0	1,220	0	32	
78.		Khowai Irrigation project	4,515	2,630	58	1,885	1,560	1,070	59	18	

Sl. no.	Name of the State	Name of the Project	IP target (ha)	IP created (ha)	IP created (in per centage)	Gap in IP creation (ha)	IP utilized (ha)	Gap in IP utilization (ha)	Percentage of IP utilized vis a vis IP created	Expenditure 2008-17
79.	Uttar Pradesh	Modernisation of Lahchura Dam	46,485	46,485	100	0	46,485	0	100	329
80.		Improving Irrigation Intensity of Hardoi Branch	95,961	95,961	100	0	95,961	0	100	127
81.		Bansagar Canal	1,50,132	1,00,000	67	50,132	11,101	88,899	11	1,737
82.		Restoration of Sarda Sahayak Canal System	7,90,000	2,50,000	32	5,40,000	2,50,000	0	100	229
83.		Madhya Ganga Canal Phase-II	1,46,132	41,319	28	1,04,813	0	41,319	0	980
84.	West Bengal	Subarnarekha Barrage Irrigation project	130014	0	0	130,014	0	0	0	0
85.		Tatko Irrigation Project	2,494	1,970	79	524	1,970	0	100	3
Total			69,82,845	43,90,861		25,91,984	27,64,451	16,26,172		60,448

Annexure 4.7
(Refer para 4.5)

IP Status of selected MI schemes (NE States)

State	No. of MIS			Cost/ Expenditure (₹ in crore)		Irrigation Potential (IP)				
	Nos. of sampled MI schemes	Nos. of sampled MI schemes completed	Nos. of sampled MI schemes ongoing	Sanctioned cost	Actual expenditure (up to 03/2017)	IP projected (in thousand ha)	IP creation till 03/2017 (in thousand ha)	Shortfall of IP creation vis a vis IP projected	IP utilized 03/2017 (in thousand ha)	Shortfall of IP utilized vis a vis IP creation
Arunachal Pradesh	22	15	7	17.45	15.60	1.360	1.20	0.16	Not furnished by State Agency	-
Assam	30	17	13	240.93	133.07	15.55	5.30	10.25	3.33	1.97
Meghalaya	17	11	6	94.45	41.52	6.61	3.96	2.65	3.71	0.26
Mizoram	12	10	2	19.09	16.34	1.42	Not furnished by State Agency			
Nagaland	23	15	8	29.38	28.55	2.096	1.605	0.49	1.139	0.47
Sikkim	22	14	8	6.86	4.32	0.691	0.476	0.22	0.414	0.06
Tripura	9	8	1	12.34	9.70	1.05	0.46	0.59	0.46	0
Total	135	90	45	420.50	249.10	28.78	13.00	14.36	9.05	2.76

Source: State Level Agency

Annexure 4.8
(Refer para 4.5)

IP Status of selected MI schemes (Other States)

Sl.No.	Name of the State	Selected MIS			Expenditure (₹ in crore)		Irrigation Potential (IP) (in thousand ha)				
		Nos. of sampled MI	No. of sampled MI completed	No. of sampled MI ongoing/ abandoned	Sanctioned cost	Actual expenditure (up to 03/2017)	IP projected	IP creation till 03/2017	Shortfall of IP creation vis a vis IP projected	IP utilized till 03/2017	Shortfall of IP utilized vis a vis IP creation
1.	Andhra Pradesh	2	1	1	29.80	17.30	3.323	0.240	3.08	0.240	Zero
2.	Bihar	14	11	3	57.56	55.13	10.25	10.25	0	Not furnished	-
3.	Chhattisgarh	21	12	9	141.14	155.53	12.543	3.086	9.46	0.140	2.95
4.	Himachal Pradesh	17	15	2	52.11	54.62	37.75	0.872	36.88	0.114	0.76
5.	Jammu & Kashmir	30	15	15	220.08	128.25	21.318	8.110	13.2	7.045	1.06
6.	Jharkhand	20	15	5	34.39	30.40	3.915	3.029	0.88	2.342	0.69
7.	Karnataka	25	15	10	75.59	75.48	4.975	3.463	1.51	3.463	Zero
8.	Maharashtra	8	4	4	365.30	528.82	8.171	4.326	3.84	0.684	3.65
9.	Madhya Pradesh	23	15	8	165.25	188.66	11.16	5.95	5.21	4.59	1.36
10.	Odisha	3	2	1	4.38	6.76	0.24 ²	0.09	0.15	Not furnished	-
11.	Rajasthan	2	1	1	26.96	47.85	2.396	1.303	1.10	1.303	Zero
12.	Telangana	2	2	0	3.72	5.01	0.43	0.33	0.10	0.33	0
13.	Uttarakhand	30	17	13	53.03	47.52	4.219	3.884	0.34	3.83	0.05
14.	West Bengal	3	3	0	1.31	1.27	0.311	0.3111	0	Not furnished	-
	Total	200	128	72	1,230.62	1,342.6	120.99	45.24	75.75	24.07	10.52

Source: State Level Agency

² Information relating to IP Projected, Created and Utilized in respect of 'MIS Debljore' was not furnished

Annexure 4.9
(Refer para 4.6)

Incomplete acquisition of land in MMI projects

Sl. no.	State	Name of the project	Land required (ha)	Land in possession (Ha)	Land yet to be acquired (Ha)	% of shortfall	Reasons for delay in acquisition
1.	Andhra Pradesh	Tarakarama Thirtha Sagaram	1,334.71	1,227.18	107.53	8	-
2.		Gundlakamma	3,805.49	3,784.43	21.06	1	-
3.	Assam	Dhansiri	1,306.02	1,258.90	47.12	4	-
4.		Borolia	396.80	172.49	224.31	57	-
5.	Bihar	Durgawati	2,675.11	2,574.00	101.11	4	The assessment of land was not done properly and fresh requisition of 101.11 acres of land had to be done. There was opposition due to demand of higher compensation by the land owners.
6.		Punpun	1,516.90	1,301.63	215.27	14	There was opposition due to demand of higher compensation by the land owners.
7.	Chhattisgarh	Kelo Project	1,734.95	1,450.21	284.74	16	--
8.	Goa	Tillari	821.91	695.99	125.92	15	-
9.	Gujarat	Sardar Sarovar	59,122.00	57,150.00	1,972.00	3	Demand of enhanced compensation, change of alignment, change of ownership, difference in area to be acquired, transfer of Government land to private land, land possession issue, etc.

Sl. no.	State	Name of the project	Land required (ha)	Land in possession (Ha)	Land yet to be acquired (Ha)	% of shortfall	Reasons for delay in acquisition
10.	Jammu & Kashmir	Tral LIS	41.50	38.30	3.20	8	-
11.	Jharkhand	Subernrekha	54,558.00	34,002.00	20,556.00	38	-
12.		Gumani Barrage	1,001.56	936.67	64.89	6	-
13.		Sonua	830.46	759.14	71.32	9	-
14.		Surangi	264.80	241.10	23.70	9	-
15.		Panchkhero	557.60	521.82	35.78	6	-
16.	Karnataka	Upper Tunga	4,761.29	4,053.78	707.51	15	Delay in sending proposals to the SLAO, delay in notifying the proposed land by SLAO, protest from the farmers for land acquisition and delayed payment of compensation to farm ers.
17.		Sri Rameshwar	698.90	250.07	448.83	64	
18.		Bhimasamudra Tank	33.50	3.50	30.00	90	
19.		Dudhganga	428.00	143.95	284.05	66	
20.	Kerala	Karapuzha	1,481.00	1,379.00	102.00	7	-
21.	Maharashtra	Aruna Medium	714.26	490.06	224.20	31	-
22.		Lower Pedhi	3,446.00	3,066.00	380.00	11	-
23.		Hetwane (Completed in 2008-09)	1,147.97	1,074.05	73.92	6	-
24.		Lower Panzara	2,027.45	1,578.33	449.12	22	-
25.		Nandur Madhmeshwar Ph-II	1,611.17	1,543.13	68.04	4	-
26.		Tarali	1,215.55	797.00	418.55	34	-
27.		Arjuna	697.95	645.04	52.91	8	-
28.		Bawanthadi	4,481.78	4,416.15	65.63	1	-
29.		Lower Dudhna	5,180.00	4,996.00	184.00	4	-
30.		Lower Wardha	9,348.00	8,774.63	573.37	6	-
31.		Sarang Kheda (Completed in 2010-11)	108.25	103.93	4.32	4	-
32.		Kar Medium (Completed in 2008-09)	645.36	469.66	175.70	27	-
33.		Pentakali (Completed in 2009-10)	1,732.47	1,651.88	80.59	5	-
34.		Tajnapaur LIS (Completed in 2008-09)	74.73	65.02	9.71	13	-
35.		Khadakpurna	4,669.13	4,508.09	161.04	3	-
36.		Wang	1,222.00	1,122.00	100.00	8	-
37.		Krishna Koyna	6,305.87	2,112.24	4,193.63	67	-

Sl. no.	State	Name of the project	Land required (ha)	Land in possession (Ha)	Land yet to be acquired (Ha)	% of shortfall	Reasons for delay in acquisition
38.	Odisha	Anandpur barrage	4,218.75	916.06	3,302.69	78	Stiff resistance of the land holders
39.		Telengiri	1,037.17	956.31	80.86	8	-
40.		Ret Irrigation (KBK)	1,303.41	940.86	362.55	28	-
41.		Kanupur	3,022.31	2,484.84	537.47	18	-
42.		Lower Suktel (KBK)	6,382.38	3,609.46	2,772.92	43	-
43.		Lower Indra (KBK)	4,755.39	4,135.46	619.93	13	-
44.		Rukura Tribal	412.93	395.73	17.20	4	-
45.	Telangana	Rajiv Bheema LIS-	11,886.80	11,444.82	441.98	4	-
46.		Indiramma Flood flow canal of SRSP	13,725.31	11,990.06	1,735.25	13	-
47.		SRSP Stage-II	7,579.00	7,319.00	260.00	3	-
48.		Palemvagu	331.00	329.67	1.33	0	-
49.		J. Chokka Rao, LIS	14,695.00	12,212.00	2,483.00	17	-
50.		Sri Komaram Bheem	3,737.77	3,554.43	183.34	5	-
51.	Tripura	Manu	184.00	116.00	68.00	37	-
52.		Khowai	303.46	276.58	26.88	9	-
53.	Uttar Pradesh	Bansagar Canal	1,347.68	883.511	464.17	34	-
54.		Madhya Ganga Canal Phase-II	5,053.02	1,243.23	3,809.79	75	-
55.	West Bengal	Subarnarekha Barrage	5,500.00	1,465.83	4,034.17	73	Land acquisition proposals of 862.30 ha were lying with Land Acquisition department
56.		Tatko	442.16	403.70	38.46	9	-
Total			2,67,915.98	2,14,034.92	53,881.06		

Annexure 4.10
(Refer para 4.7)

Issues in Rehabilitation and Resettlement in MMI projects

State	Project	R&R Issues
Andhra Pradesh	Gundlakamma Reservoir	Due to incomplete R&R measures, ayacut was not completed leading to shortfall in IP creation.
	Tarakarama Teertha Sagaram	R&R measures had not started as of March 2017.
Bihar	Durgawati Reservoir	Provision for rehabilitation of displaced families was not made in the DPR. 32 ha land had been acquired in three villages affecting 276 families due to submergence of the dam area. However, the quality of R&R measures were deficient as basic amenities like schools, community centres, health centres, toilets, PCC roads, temple were not available or were in dilapidated condition.
Goa	Tilari project	A total area of 695.99 ha was acquired for construction of canal network and residential building but the acquisition of 125.916 ha land was pending under TIP for Canal Network. Out of 947 Project Affected Persons (PAPs), One Time Settlement (OTS) amount has been disbursed to 432 PAPs and the remaining 515 PAPs are yet to be disbursed with OTS amount.
Jharkhand	Subarnarekha, Sonua, Surangi and Panchkhero Project	In four projects, 15,878 families had been displaced. In Subarnarekha Multipurpose Project, out of the total 15,539 displaced families, 2,472 families were yet to be allotted residential plot or the equivalent amount.
Kerala	Karapuzha	The rehabilitation of the PAPs were not completed as only 84 out of 161 evicted families were given 42 houses; 68 families were given 75 cents of land each but without construction of the houses; nine families were given neither houses nor land as their whereabouts were not known.
Maharashtra	Wang	Even after 22 years of commencement of project, rehabilitation of only 913 out of 1,922 families could be done. Further, land distribution was not done in case of 882 families and partly done in case of 208 families.
	Aruna	Delay in release of fund for timely disposal of R&R measures led to protests and demand for payment of compensation as per new rate prescribed under the Land Acquisition Act, 2013 affecting the gorge filling of the dam.
Odisha	Anandpur Barage, Telengiri, Ret Irrigation, Kanupur, Lower Suktel, Lower Indra and Rukura Tribal project	In seven projects, rehabilitation of only 10,336 out of 19,945 displaced families was done due to agitation of PAPs, shortage of staff and demands for assistance in the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFTLAR & R), 2013. In terms of percentage, the R&R measures were three <i>per cent</i> in case of Lower Indra project to 98 <i>per cent</i> in case of Lower Suktel project. In Kanupur and Lower Suktel Irrigation Projects, the works were reported to be affected due to agitation of the displaced people.
Telangana	Indiramma Flood flow canal project	The work of Thotapally Balancing Reservoir and R&R related issues affected the work of branch canals and distributaries, which led to non-creation of IP under the project.
	Rajeev Bhima LIS	Due to non-completion of R&R measures and delay in evacuation of Kanaipally village, a portion of Sankara Samudram Balancing Reservoir bund remained incomplete and water could not be impounded to its full capacity of 1.82 TMC. As a result, IP creation was 54 <i>per cent</i> .

Annexure 4.11
(Refer para 4.8)

Deficiencies in obtaining Clearances in MMI projects

Sl. No.	State	Project	Issues
1.	Bihar	Durgawati	Forest clearance not obtained during inclusion under AIBP
2.	Gujarat	Aji-IV	Forest clearance not obtained during inclusion under AIBP
3.		Bhadar-II	
4.		SardarSarovar	Forest clearance, Kachch Desert Wild Life Sanctuary and clearance from Ministry of Railways were not obtained
5.	Jharkhand	Surangi	Environment clearance and clearance from National Highway Authority not obtained
6.		Sonua	Environment and forest clearance not obtained
7.		Gumani	Clearance of Environment and Ministry of Railway not obtained
8.		Panchkhedo	Environment clearance not obtained
9.	Karnataka	Ghataprabha Stage-III	Forest clearance not obtained during inclusion under AIBP
10.	Madhya Pradesh	Sindh Phase-II	Forest clearance was obtained in February 2000, though it was included under AIBP in 1998-99
11.		Mahuar	Environment clearance was obtained in May 2014 where as the project was included under AIBP in 2013-14
12.	Maharashtra	Warna	Forest clearance not obtained during inclusion under AIBP
13.		Tarali	Clearance not obtained from Ministry of Railways and National Highway Authority
14.	Odisha	Anandpur Barrage	Environment and forest clearance not obtained
15.		Lower Indra	Environment and forest clearance not obtained
16.		Lower Suktel	Environment and forest clearance not obtained
17.		Ret Irrigation	Forest clearance not obtained
18.		Telingiri	Environment and forest clearance not obtained
19.		Kanupur	Environment and forest clearance and clearance from NHAI not obtained
20.	Telangana	Indiramma Flood Flow Canal	Environment and forest clearance not obtained
21.		Sri KomaramBheem	Clearance not obtained from Ministry of Railways
22.	West Bengal	Tatko	Forest clearance not obtained

Annexure 4.12
(Refer para 4.9.4)

Irregularities and deficiencies in award of works

State	Project	Observation
MMI Projects		
Assam	Dhansiri Irrigation Project	Three works valuing ₹ 77.41 lakh were awarded in March 2014 to a single bidder without exercising option of retendering, citing time constraints, at a contract value of ₹ 76.63 lakh with the stipulation to complete the works within 30 days of issue of the work order. While a total amount of ₹ 54.26 lakh was paid to the contractor up to March 2017, the works were incomplete as of July 2017, which indicates that the decision to allot work without re-tendering on the grounds of urgency was not justified.
Gujarat	Sardar Sarovar Project	<ul style="list-style-type: none"> • Tender documents provided for increase in the amount of performance guarantee/security if the quoted rate of successful bidders are significantly lower than the estimated cost of work. Audit noted that out of 53 works awarded between April 2016 and March 2017, in 12 works the tendered rates were 30 to 40 <i>per cent</i> below the estimated cost. However, project authorities did not take any additional guarantee or security as provided for in the tender documents. • There was delay in award of works of Kachh Branch Canal with estimated cost of ₹ 4,053.81 crore by four to nine years after completion of the work of Narmada Main Canal due to issues related to land acquisition and design and alignment of the canal. This ultimately caused delays in creation of CCA of 25,761 ha.
Jharkhand	Subernarekha Multipurpose Project	<ul style="list-style-type: none"> • According to Jharkhand Public Works Department Code, in case of single tender, the tender process should be cancelled and re-tendered. If in re-tender a single bid is again received, approval for accepting the same may be obtained from the next higher authority. <p>In pre-qualification bid for the work of "Construction of Kharkai Barrage with gates etc." four bidders were found to have qualified. However, during technical evaluation only one bidder was found to be technically suitable. The work was awarded (July 2013) to the single bidder by the Departmental Tender Committee for ₹ 257.98 crore without going into re-tendering process in violation of codal provisions.</p> <ul style="list-style-type: none"> • Jharkhand PWD Code provides for finalization of tender within three to 15 days. However, in 62 out of 70 test-checked works amounting to ₹ 981.45 crore, there were delays in award of works ranging between three and 241 days.
Madhya Pradesh	Sindh, Bansagar and Mahuar Projects	As per provisions of MPWD manual, works of a value exceeding ₹ two lakh are required to be awarded through widely publicized open tenders. MP Store Purchase Rules also provide for invitation of tenders for all work of value above ₹ 25,000.00. Further, as per these purchase rules purchases through Madhya Pradesh Laghu Udyog Nigam (MPLUN) be made of reserved items. However, in connection with the above projects the concerned Department awarded works of supply and installation of gates, MS steel Aqueducts, Foot Bridge, Pipe line, Hume Pipe, Canal Railing and Sign Board etc, amounting to ₹ 129.58 crore through direct supply order to the two agencies mentioned above in contravention of codal provisions. The procurements with regard to Sindh and Bansagar Projects are reported to be under investigation of Economic Offence Wing of the State.

State	Project	Observation
Madhya Pradesh	Mahuar	<p>As per contract terms and conditions, the contractor shall not be assigned or sublet the work without written approval of Divisional Officer, who can make the payment only to agreed contractor and not directly to sub-letter. Further, as per MP store purchase rules of MPWD manual, all the works of value above ₹ 25,000 shall be awarded only through open tender by advertising in news paper in a transparent manner. All measureable works shall be recorded and paid only after its proper recording and checking by SDO and EE in measurement book and check measurement register.</p> <p>It was however observed that work valuing ₹ 21.39 crore in Headwork and ₹ 2.10 crore in canal were got executed through petty vouchers by subletters irregularly, without inviting tenders during the currency of original agreement of works. All the payments were made without recording of measurement of work and consequent checking by SDO/EE i.e. without ensuring the quantity and quality of work. Further, the payments were directly made to subletter/petty contractors which was also irregular.</p>
Maharashtra	Tarali, Arjuna, and Krishna Koyna LIS	<ul style="list-style-type: none"> • Maharashtra Public Works (MPW) Manual provides that tenders should invariably be invited publicly for all works given out on contract except for extra items which are to be executed as part of a scheme and are inseparable from the original contract and cannot be executed by a different agency. Audit noted that in contravention of these provisions in Tarali and Arjuna projects, works amounting to ₹ 171.63 crore, which were separate and entirely different from the original work (amounting to ₹ 220.64 crore), were allotted to contractors without tendering and competitive bidding. Similarly in Krishan Koyna LIS additional works amounting to ₹ 19.46 crore which were separate from original work (₹ 22.02 crore) was allotted to the contractor without tendering. • Additionally, in the case of Krishna Koyna LIS in 2006-07, Government of Maharashtra (GoM) gave approval for award of works to co-operative sugar factories due to urgency. However, 29 works costing ₹ 43.34 crore were allotted to the co-operatives without any tendering two to five years of GoM's approval. Award of work to sugar co-operatives was violative of codal provisions and their nomination on grounds of urgency lacked justification as the works were awarded after a delay of two to five years.
Odisha	Lower Suktel and Telangiri Irrigation Projects	<ul style="list-style-type: none"> • Under the Lower Suktel Irrigation Project, bid for construction of Earth Dam from 490 M to 1,410 M with an estimated cost of ₹ 44.00 crore was invited through e-tender in January 2011. As the tender was not finalised within 90 days, bidders were asked to extend their bid validity twice. The Tender Committee (TC) recommended (September 2011) award of the work to Firm X with a condition that the bidder would deposit additional performance security ₹ 5.82 crore before drawal of agreement. Two months after approval of the TC Firm X was asked to execute agreement by 30 November 2011. The firm requested for 30 days to execute the agreement and furnish additional performance security which was not accepted and its EMD was forfeited. Subsequently after 16 months, the work was awarded to M/s OCC Ltd, a State PSU, in April 2013 at their offered rate of ₹ 59.90 crore. Insisting on deposit of additional performance security and refusing to allow extension of time to a qualified bidder when the bid validity had been extended twice on the request of the project authorities and awarding the work to a PSU lacked prudence as it resulted in extra cost of ₹ 26.12 crore. • As per Central Vigilance Commission, works are to be awarded based on open tenders and award on nomination basis is a contravention of codal provisions. In the Lower Suktel Irrigation Project, the balance work of 'Construction of Spillway' and work of 'Earth Dam' with a total sanctioned

State	Project	Observation
		<p>cost of ₹ 164.74 crore was awarded at a cost of ₹ 200.64 crore including 10 per cent overhead charges, to OCC Limited a PSU without any tendering process.</p> <ul style="list-style-type: none"> For excavation of Telangiri Main Canal, Chief Construction Engineer (CCE), Upper Kolab Project (UKP) invited (March 2012) tender for four works through a common tender Call Notice at an estimated cost of ₹ 26.62 crore. The Tender Committee cancelled the tender as combined evaluation criteria was not incorporated in the bid document. Subsequently, CCE invited fresh bid (October 2012) for three works after incorporating the relevant criteria with revised estimated cost of ₹ 26.34 crore (cost of three works in earlier tender was ₹ 23.51 crore) due to revision of SoR. Thus, failure of the authorities to incorporate combined evaluation criteria in the initial tender document resulted in extra cost of ₹ 2.83 crore at the tender stage itself.
Rajasthan	Modernization of Gang Canal	The work of PCC block lining on Modernization of Gang Canal (including the cost of manufacturing of PCC blocks) was allotted at 4.74 per cent to 5.80 per cent below tender cost. Audit scrutiny revealed that the department issued a separate work order to another contractor for manufacturing and supply of PCC blocks at five per cent above tender premium even though this work was included in the PCC Block lining work. As a result an excess expenditure of ₹ 30 lakh was incurred due to the difference in tender rates for PCC block lining and rates allowed for PCC Block manufacture ranging from 9.74 per cent to 10.80 per cent.
Uttar Pradesh	Bansagar Canal Project and Madhya Ganga Canal Project	<ul style="list-style-type: none"> In Bansagar Canal Project, against the provision of 30 days for NIT prescribed in the Financial Handbook Vol. VI the division invited (September 2012) tender with notice of 15 days for construction of balance work of the project at an estimated cost of ₹ 403.46 crore. Four bidders sought additional time of 15 days for submitting their bids which was not allowed and as a result could not participate in the tender. Finally, the bid was awarded to another firm in January 2013 i.e. after a delay of over four months. Hence, limiting tender notice period to 15 days of a large contract was not only in violation of codal provisions but also lacked justification as it reduced competition. In one contract of Bansagar Canal Project and five contracts of Madhya Ganga Canal Project phase II valuing ₹ 23.68 crore, time allowed for submission of bids was not adequate and ranged from 15 to 23 days in violation of codal provisions. Scrutiny of eight contracts in Bansagar and Madhya Ganga Projects revealed that two contracts of ₹ seven crore were awarded on the basis of single tender. Re-tendering was not done in any case and the agreements were signed without competitive bidding.
MI Schemes		
Maharashtra	Unkeshwar KT	The scheme was included in AIBP in 2007-08 with original approved cost of ₹ 2.07 crore. GoI released ₹ 1.12 crore to the project in 2008-09. The work for construction of Unkeshwar KT weir was awarded (March 2008) to a contractor for ₹ two crore with stipulated date of completion as September 2010. Prior to commencement of work, a decision was taken to convert Unkeshwar KT Weir to High Level Barrage (August 2009) by the project authority leading to an increase in cost to ₹ 89.76 crore. However, despite the massive change both in the scope and cost of work, the project authorities got the work done from the same contractor instead of inviting fresh tenders for the work. A proposal was also made in August 2009 to exclude the work from AIBP on which a decision was still awaited. It was seen that in the meantime a payment of ₹ 59.86 crore

State	Project	Observation
		was made to the contractor and AIBP funds to the extent of ₹ 2.07 crore were utilized till September 2014 after which the work had been stopped.
Mizoram	Zlingdai, Buhchangdil, Tuikual, Mat and Tlabung	In the case of five MI schemes costing ₹ 5.66 crore, wide publicity was not given for tenders and lowest bidders were not selected.
	Awmpuiphai, Buhchandil, Changte, Fuanlui, Lower Tuimuk, Mat, Midumphai, Thangpuilui, Tuikual and Zilngai	Ten other schemes were undertaken departmentally but in deviation of GFR provisions and construction materials worth ₹ 4.57 crore were procured without calling of tenders.
Meghalaya	Ringdee FIP, Lapdkoh FIP, Kolaigoan FIP, Sarikhushi FIP, Bakanda FIP, Jajil FIP, Amsohkhri FIP, Nengja FIP, Bolchugre FIP, Thepdiengngan FIP, Umsophria FIP and MarmainKhuswai FIP	In the case of 11 schemes, there were delays in issue of work order by periods ranging from one month to nearly two years from the date of receipt of administrative approval and financial sanction. The delay was due to delay in provision of funds.

Annexure 4.13
(Refer para 4.9.5.1)

Irregular expenditure

(Amount in ₹ crore)

State	Amount	Project	Audit Findings
MMI projects			
Andhra Pradesh	3.27	Gundlakamma project	<ul style="list-style-type: none"> Project authorities paid ₹ 1.78 crore to the contractor separately towards the work of diversion channel and restoration of road treating the work as additional items even though this work was included in the agreement for the work itself. State Government increased the rate payable for distributaries network from ₹ 9,000 per acre to ₹ 10,500 per acre in June 2015 without applying tender discount or premium³ in the ongoing contracts with effect from April 2013. <p>The Department entered into a supplementary agreement in June 2016 for ₹ 3.21 crore for creation of the balance ayacut of 32,333 acres by incorrectly applying tender discount of 5.13 per cent on old rate and arrived at differential rate of ₹ 1,962 per acre⁴, instead of ₹ 1,500 per acre. This resulted in an extra commitment of ₹ 1.49 crore. Department stated that the supplementary agreement would be modified after calculating the differential rate without applying tender discount.</p>
Assam	9.80	Champamati Project	Expenditure of ₹ 9.80 crore was incurred towards items of work beyond the scope of the approved DPR, without obtaining the approval of the GOI.
	2.06	Dhansiri Irrigation Project	<p>As per CWC guidelines, revision of estimate can be done only in case of change in scope of work. The work of construction of Aqueduct over river Khowrang at Ch. 45,250 ft was awarded (April 2000) to a contractor at a tendered value of ₹ 1.85 crore with the stipulation to complete the work within April 2002. The contractor was unable to complete the work within the stipulated duration and the Division granted several extensions of time up to June 2009 without imposing penalty. Instead, the Division enhanced (February 2009) the tender value to ₹ 4.30 crore which included ₹ 2.08 crore due to price escalation and made payment of ₹ 5.10 crore, which included this amount of ₹ 2.06 crore.</p> <p>Allowing price escalation in a contract without any provision for the same and in the case where delay was attributable to the contractor resulted in irregular expenditure.</p>
Bihar	1.45	Durgawati and Punpun Barrage projects	Bihar Mineral Concession Rules stipulates that works divisions should obtain Form M & N and challan from contractors and get the same verified from the District

³ 'Tender discount' is the percentage of the price quoted by the bidder below the estimated cost of the work. 'Tender premium' is the percentage quoted in excess of the estimated cost.

⁴ ₹ 10,500 – (9,000 - 5.13 per cent of 9,000)

State	Amount	Project	Audit Findings
			<p>Mining Officer before making payment for cost of minor minerals and their carriage.</p> <ul style="list-style-type: none"> Records of five agreements executed under Durgawati Right main canal division and Durgawati Left main canal division disclosed that the concerned divisions made payment of ₹ 91.88 lakh irregularly to the contractors for consumption of 2,037.39 cum of sand, 2,378.24 cum of stone chips, 2,643.90 cum metal and 34.20 cum of boulders; without verification of form M and N. Similarly, in the case of Punpun Barrage project, payment of ₹ 53 lakh was made for use of 10,092.89 cum of stone metal without verification of form M&N and challan from the District Mining Officer was irregular.
Chhattisgarh	0.36	Kelo	<p>The work of construction of head regulator structures of Dhangaon distributary of Kelo project was awarded to the contractor for ₹ 95.18 lakh. The contractor did not execute the work and the EE terminated the contract under risk and cost clause. However, based on representations of the contractor, a decision was subsequently taken in the favour of the contractor to restrict recovery of extra cost of ₹ 35.57 lakh from the contractor. The decision was on the grounds of delay in LA cases. However, as per facts submitted by EE, the LA case at seven out of 11 sites were finalised prior to issue of work order to the contractor. As such, restricting the recovery of payment from the contractor was irregular.</p>
Jharkhand	42.20	Subarnarekha	<p>According to Rule 55 of the Jharkhand Minor Mineral Concession (JMMC) Rules 2004, purchase of minor minerals can be made from lessee's/permit holders and authorised dealers only for which submission of Transport Challan along with affidavits in form 'O' and particulars (sources from where materials were procured, quantity and prices of materials) in form 'P' is required. Genuineness of particulars given in forms O and P were to be examined by District Mining Officers concerned before making payments to contractors. Further, as per instructions contained in Schedule of Rates (SoR), steel of TATA TISCON and Steel Authority of India Limited (SAIL), Bokaro only was to be used in construction works.</p> <p>Audit observed that in 49 out of 70 test-checked agreements, payment of ₹ 42.20 crore on account of carriage of construction materials was made to the contractors by the divisional officers without obtaining required forms "O" and "P" from the contractors. In absence of required forms/challans, verification with the Mining Department could not be done. Besides, sales invoices in support of procurement of steel were also not submitted by the contractors. As such, payments on carriage were made without examination of specified places from where materials were procured. Hence, payment of ₹ 42.20 crore was irregular.</p>

State	Amount	Project	Audit Findings
Karnataka	1.40	NLBC	In the work of Km 0.00 to 50.87 of the Canal, a provision was made in the estimate for providing and fixing LDPE sheets for bed and sides of canal including cost of material, labour, laying, jointing, etc. with all leads and lift (Item No 13). The Division had considered ₹ 223.60/sqm for providing and fixing LDPE sheets having thickness of 750 micron as per WRD SR 2012-13. Subsequently, the estimate was revised based on WRD SR 2013-14 and the rate worked out to ₹ 299/sqm by considering thickness of 1,000 micron thick LDPE sheet. Due to wrong adoption of specification of thickness (1,000 micron instead of 750 micron LDPE sheets), there was an extra expenditure of ₹ 1.40 crore.
Maharashtra	67.40	Lower Wardha	The work of construction of Cement Concrete lining to Main Canal, Giroli and Deoli branch canal was awarded to M/s Srinivas Construction. During the execution of the work, the contractor consumed 17 lakh cum of Cohesive Non Swelling (CNS) material at the rate of ₹ 468.55 per cum. which included cost of transportation of material from 30 km at the rate of ₹ 362.50 per cum. The project authorities failed to produce any evidence of the quarry from which the material was extracted. The District Mining Office of Wardha district had confirmed that no permission was granted to the contractor for extraction of the material. Thus, loading of the estimate with lead of 30 km without ensuring the actual location of the quarry resulted in irregular payment of ₹ 67.40 crore to the contractor.
	0.55	Taralli	The work of preparation of design, drawing and vetting of the same from CDO Nashik which was responsibility of department was included in the tender. Since this will be an extra effort for contractor, the contractor will load the cost of such work in his bid. This has resulted in loading of administrative and establishment expenditure on works expenditure. Further, in Koparde approach canal, Khatab LBC, Bambavade & Tarali LIS and Pal & Indoli LIS, contractor started work without any approved design. Not only were there delays in works due to time taken in preparing design and getting these approved from CDO, Nashik but also it resulted in EIRL and excess quantities due to change in design of works after approval of modified design by CDO.
	8.79	Hetwane	Government of Maharashtra issued Government Resolution (GR) in January 1992 sanctioning a special relief in addition to price escalation for all works ongoing as on October 1990 due to unprecedented increase in the cost of construction materials due to gulf war. The said GR also prescribed the formula for calculation of special relief. Para 2 (vii) of the guidelines issued under Government Resolution (GR) (1992) stipulates that the special relief was allowable till all the works under the contracts are complete. The work was allotted in 1985 hence it was eligible for special relief and the contractor was paid ₹ 8.95 crore as special relief for the period from October 1990 to June 2008 (₹ 15.68 lakh between October 1990 and September 1994

State	Amount	Project	Audit Findings
			and ₹ 8.79 crore between October 1994 and June 2008) in addition to the price escalation. The effect of unprecedented increase in the cost of materials due to gulf war was over by 1994, however, due to non-revision of the said GR, the contractor continued to get benefit of the same till 2008. This amounts to undue benefit of ₹ 8.79 crore (between October 1994 and June 2008) to contractor.
Telangana	4.79	Palemvagu Project	As per clause 46 of General Conditions of Contract, escalation on prices on cement, steel and fuel are allowed, if prices increase by more than five <i>per cent</i> over the prevailing market rates. Any hike beyond five <i>per cent</i> over the base rates were to be compensated. However, the Department allowed price escalation towards cement, steel and fuel including the initial five <i>per cent</i> increase. The incorrect payment of price escalation resulted in excess payment of ₹ 4.79 crore.
Odisha	2.53	Lower Suktel project	In December 2003, the State government issued notification for acquiring 476.90 ha land in the village Chudapali submergence area of the project and sanctioned an amount of ₹ 12.88 crore. Subsequently in January 2010 the Special Land Acquisition Officer (SLAO) unauthorisedly revised the classification of land and the estimate to ₹ 15.41 crore. This led to irregular sanction of ₹ 2.53 crore towards cost of land.
Uttar Pradesh	21.85	Bansagar Canal Project	In Irrigation Department, contracts are awarded on fixed item rates and there are no provisions of price adjustment. In Bansagar Canal Project, the contract bond was signed with a firm for ₹ 402.52 crore and an amount of ₹ 21.85 crore was paid by two test-checked Divisions on account of price adjustment. Audit observed that the contractor claimed the price adjustment without mentioning any justification regarding changes in price indices. Divisional Officer also did not verify the contractor's claim and paid the amount. Hence, undue benefit of ₹ 21.85 crore was given to contractor.
	99.56	Bansagar Canal Project	Estimate of a project should be prepared after detailed survey so that the works may be executed as per the approved specification and variation and deviation from the technical sanction could be minimised. In nine out of 14 test-checked bills of quantities of Bansagar Canal Project awarded to the firm, extra items amounting to ₹ 99.56 crore were added. Thus, works amounting to ₹ 99.56 crore were kept out of bidding process and were belatedly added in the scope of the work to be executed by the firm and, therefore, got executed at non-competitive rates. This was irregular and extended undue benefit to the contractor.
Sub Total	266.01		

State	Amount	Project	Audit Findings
MI Schemes			
Madhya Pradesh	0.32	Jhara Minor	No provision for providing and placing CNS layer below CC lining was made whereas the same was included in Pathakhai Minor Project in selected reaches of canal. The Department executed CNS below CC lining in both schemes without conducting the test for ascertaining the requirement of CNS. This resulted in irregular expenditure of ₹ 32.04 lakh.
Mizoram	0.86	Khawnuai, Zilngai, Changte, Fuanlui, Mat, Buhchangdil, Tuikual, Midun Phai, Lower Tuimuk, Awmpui Phai	Expenditure of ₹ 86 lakh was incurred over and above the estimated cost for hiring of excavator in excess of requirement, Repair and Maintenance during construction included in the DPRs without administrative approval and expenditure sanction, materials for construction and execution of item of work which were not included in the DPR and payment of wages for laying & fitting of GI pipes in March 2017 even before construction of any structural components.
Nagaland	4.07	Pangba, Aoyung, Tipfeko-PfeleKalu, Balijan and Khekiho	During joint physical verification of four MI schemes, it was noticed that works amounting to ₹ 4.07 crore were not executed in accordance with the scope of work approved in the DPR. The deviation from approved scope of work resulted in irregular expenditure of ₹ 4.07 crore.
	0.32	Diphupani MI scheme	A standalone MI scheme was taken up (2014-15) for which ₹ 31.50 lakh was released as the work was reported to be completed as per the specification. But during joint physical verification (July 2017) it was noticed that work has not been executed. Hence, undue payment of ₹ 31.50 lakh was made to contractor.
	0.15	Pangtiyang MI scheme	Payment of ₹ 17.13 lakh was released under the Pangtiyang MI scheme (2014-15) as the related work was reported to be completed. However, during joint physical verification (July 2017), it was noticed that work has not been executed. Hence, undue payment of ₹ 17.13 lakh was made to contractor.
Odisha	0.83	Tiljodi	Expenditure of ₹ 83 lakh was incurred without Administrative approval.
	1.45	Dablojore scheme	Expenditure of ₹ 1.45 crore was incurred without Administrative approval.
Sub Total	8.00		
Grand Total	274.01		

Annexure 4.14
(Refer para. 4.9.5.2)

Wasteful and Unproductive/idle Expenditure

(Amount in ₹ crore)

State	Amount	Project	Audit Findings
MMI projects			
Assam	17.79	Dhansiri Irrigation Project	<p>The work of construction of a silt ejector at chainage 80 M of the Main Canal of the project was awarded (November 2003) to a contractor. The work was not completed as of July 2017, even after incurring expenditure of ₹ 17.79 crore, as the construction of power station work was abandoned due to withdrawal of the interest of APDCL. Meanwhile, during physical verification, heavy siltation was noticed in the Main Canal.</p> <p>The Division stated (July 2017) that a new proposal was in process with APPCL, another power sector company, to complete the work. The fact remained that expenditure of ₹ 17.79 crore already incurred on the project remained unproductive.</p>
	0.10	Dhansiri Irrigation Project	In the Branch Canal B3M, repair works costing ₹ 9.91 lakh were shown executed between chainage 15,606 m and 17,374 m, which was either lying abandoned (chainage 15,606 m to 16,760 m) or idle (chainage 16,760 m to 17,374 m).
	2.25	Dhansiri Irrigation Project	In view of the damaged chainage 15,606 m to 16,760 m in Branch canal B3M, the work of construction of a 'Gated Spillway' at the Ch. 16,760 M of the canal to enable supply of water through the canal was allotted (February 2014) to a contractor with the tender value of ₹ 1.91 crore and subsequently revised (January 2015) to ₹ 5.70 crore through the supplementary tender due to increase in scope of work. After executing work valued ₹ 2.25 crore, the contractor discontinued the work since April 2015 for reasons not on record. Till July 2017 the work remained incomplete. The contractor was paid ₹ 1.93 crore, with remaining liability of ₹ 32 lakh, which became unproductive as neither the contractor resumed the work nor did the Division take any initiative to complete the balance work.
	1.75	Dhansiri Irrigation Project	The work of construction of a 'Gated Spillway' along with other ancillary works at Ch 17,932 m of the branch canal No. D2B1M across rivulet Sonai was awarded (March 2010) to a contractor for ₹ 2.80 crore for completion within August 2010. The contractor executed work valued ₹ 2.33 crore but failed to complete the work and discontinued the same since November 2013 for reasons not on record. The work was terminated in December 2015 and the contractor was paid ₹ 1.75 crore. For execution of the balance work and additional work of

State	Amount	Project	Audit Findings
			<p>₹ 57 lakh, a fresh work order was issued (March 2016) to another contractor at the tender value of ₹ 1.04 crore for completion within May 2016. This contractor also failed to complete (July 2017) the work.</p> <p>Thus, non-completion of the work for more than seven years from the date of issuing the original work order resulted in unproductive expenditure of ₹ 1.75 crore.</p>
	0.16	Jamuna Irrigation Project	Five sheds for Gate Operators were constructed at the discharge point of Head Regulators under the Modernisation of Jamuna Irrigation Project with a total expenditure of ₹ 16.45 lakh. Physical verification of two sheds at Kasimari and Bokolia (D1 and D3 Canal) revealed that the sheds were lying in barren and damaged condition. The expenditure of ₹ 16.45 lakh was rendered unproductive.
Bihar	12.23	Kosi Barrage Project	One of the main components of the project was construction of pilot channel in the upstream and downstream of Kosi Barrage. Work was awarded for construction of Pilot Channel for ₹ 13.98 crore in March 2009 to be completed by June 2009. Subsequently, the work was stopped after incurring expenditure of ₹ 12.23 crore as it was not considered useful. The expenditure of ₹ 12.23 crore was rendered wasteful as the channel got silted up during the flood. In its place, another channel had to be constructed in the same stretch during 2010-11 in the downstream of barrage at a cost of ₹ 7.38 crore which was avoidable.
	1.02	Durgawati Project	Under Durgawati Left main canal project, two agreements for construction work in Belon Distributory were executed in October 2014 at a cost of ₹ 4.57 crore for completion within six months. The work was incomplete till January 2016 due to which it was decided to stop any further work due to change of alignment of the canal and work was abandoned. As a result, expenditure of ₹ 1.02 crore was rendered wasteful.
Goa	10.25	Tillari Project	After executing work to the extent of ₹ 10.25 crore on three works of B6 Distributory of Right Bank Main Canal, the work was terminated and it was proposed to adopt the option of Lift Irrigation scheme. The expenditure of ₹ 10.25 crore incurred on the works in the area where the Lift Irrigation scheme has been proposed may be rendered wasteful.
Gujarat	40.09	Sardar Sarovar Project	Though Narmada Main Canal and Branch Canals (except Kutch Branch Canal) were completed, the canal automation system has not been implemented even after incurring an expenditure of ₹ 40.09 crore. The amount includes cost of construction of 428 Control Cabins (CCs) amounting to ₹ 29.77 crore

State	Amount	Project	Audit Findings
			<p>constructed between the period 1993 to 2014. Audit further noticed that planning for canal automation was yet to be finalized and estimates were not yet prepared. As such, the expenditure of ₹ 29.77 crore incurred in construction of CCs when even the plan for canal automation system was not drawn up resulted in idle investment.</p> <p>Expenditure of ₹ 9.92 crore was incurred on availing consultancy services for installing computer aided Remote Monitoring and Control System (RMCS) which remained unfruitful due to deferment in implementation of the project.</p> <p>SSNNL awarded consultancy work (July 2012) for reviewing detailed design and bid documents for automation pilot project for ₹18 lakh for which the Company paid ₹ 40 lakh.</p>
Gujarat	1.14	Sardar Sarovar Project	<p>An escape in case of canal overflow already existed at Ch. 63.072 km of Vallabhipur Branch Canal (VBC) and was considered as the safety valve for drinking water outlet and railway line. However, this escape remained non operational since its inception because of absence of tail channel (drainage line) for discharge of water due to non acquisition of land and UGPL not found feasible. Further, there was GWIL drinking water pipeline in vicinity of the tail channel and escape was prepared against the natural flow (opposite direction) of river (Bhadar) and water could not be diverted from the escape.</p> <p>Estimate of ₹ 1.54 crore for additional escape at Ch. 64.875 km on VBC was approved and lowest quoted rate for the work was ₹ 1.14 crore. Hence the original escape at Ch. 63.072 remained idle since its construction.</p> <p>Due to faulty survey and planning at the time of construction of structures, the escapes was constructed at inappropriate location without completing tail channel and without acquiring sufficient land for tail channel resulting in creation of wasteful asset and extra cost of ₹ 1.14 crore on the new escape.</p>
Jharkhand	12.95	Gumani Barrage Scheme	<p>Five agreements of ₹ 13.27 crore were executed during 2015-17 for strengthening of banks, construction of service roads and major repairs of Gumani Main Canal between chainage 0 to 234 and between 629 to 1,083 under jurisdiction of Irrigation Divisions, Barhet and Pakur and ₹ 12.95 crore were paid to the contractors. No work of repair of main canal was executed under jurisdiction of Irrigation Division, Barharwa since work of Gumani Barrage was incomplete due to non-construction of afflux bund. Hence, possibility of releasing water into the Main Canal from Gumani Barrage in the near future is</p>

State	Amount	Project	Audit Findings
			remote due to non-acquisition of land for construction of afflux bund. As such, expenditure of ₹ 12.95 crore on repairs of canals/embankments was rendered unfruitful.
Madhya Pradesh	0.62	Sagad Medium Project	Work on earthen dam, spill way, deck bridge and sluice was executed on the downstream though it was not required resulting in wasteful expenditure of ₹ 62.34 lakh.
	0.15	Sindh	In agreement of RBC Division Narwar that for metal, a lead of 4 km was included and payment of ₹ 15.30 lakh made with concrete and other items though lead for metal was neither required nor payable.
Maharashtra	2.31	Lower Pedhi	<p>An amount of ₹ 3.19 crore was paid to the Contractor in February 2010 against 1,210 MT of TMT Steel brought to site, however, the Contractor could not consume the material for more than seven years and the advance was outstanding. Despite the fact that land was not in possession and work could not be executed, the EE granted secured advance to the Contractor. In February 2017, the EE pointed out that the material at site was short by 136 MT and recovered ₹ 51.68 lakh. Till March 2017 i.e., after seven years, the Contractor could use only 198.77 MT of steel leaving balance quantity of 875.234 MT costing ₹ 2.31 crore which was still (July 2017) pending against the Contractor.</p> <p>The Executive Engineer, Amravati Project Construction Division No.1 Amravati stated that after giving the work order, it was expected that the contractor would start the work. However, only 198.77 MT steel out of 1,200 MT could be utilized in the structures during seven years due to non availability of land.</p>
Odisha	14.82	Lower Indira, Kanupur and Rukura Irrigation Project	State Schedule of Rate (SoR) of PWD fixed the hire charges of Dozer for spreading 300 cum of earth at ₹ 2,190.00 to ₹ 2,519 per hour. However, while preparing the estimates for compaction of earth dam and canal embankments, the department adopted hire charges ranging from ₹ 2,177.43 to ₹ 2,519 per hour for spreading 100 cum instead of 300 cum. Scrutiny of estimates of 13 works in the three projects revealed that the estimates were inflated by ₹ 14.82 crore out of which ₹ 12.12 crore had already been passed on to contractors.
	4.30	Rukura and Lower Indira Irrigation Project	Against the requirement of 75 mm thick CC M15 lining, 100 mm thick CC M15 lining was included in the estimate for 37,456.98 cum leading to excess provision of 9,364.25 cum of CC M15 in six concrete lining works of the two projects which resulted in extra avoidable expenditure of ₹ 4.30 crore.

State	Amount	Project	Audit Findings
Telangana	7.96	Indiramma Flood Flow Canal project	<ul style="list-style-type: none"> In September 2008, the Department entrusted the work of "Thotapally Balancing Reservoir" (TBR) at a cost of ₹ 131.68 crore without ensuring completion of the R&R activities. In January 2016 the Government instructed deletion of TBR from the Project due to increasing cost of R&R. As a result, the expenditure of ₹ 1.24 crore incurred on TBR remained wasteful. Further a bund in the project could not be constructed up to the required height due to objections from villagers as R&R activities had not been completed. As a result, the left side of earth bund was breached during the heavy rains (September 2016) in the catchment areas of Manar River. The failure to construct the bund upto the required height rendered expenditure of ₹ 5.50 crore on the breached bund wasteful. The work of Mothe Reservoir under the project was also not started due to obstruction caused by villagers as R&R issues had not been settled. As a result the amount of ₹ 1.22 crore spent up to April 2011 on Survey & Investigation became unfruitful as of March 2017.
	46.64	Rajiv Bhima Lift Irrigation Scheme	The work of conversion of existing Shankara Samudram tank into Shankara Samudram Balancing Reservoir (SSBR) under Rajiv Bhima Lift Irrigation Scheme (RBLIS) in Telangana was scheduled to be completed in two years as per agreement (March 2005). However, the work remained incomplete (as of March 2017) due to non-evacuation of villages coming under the submergence of Kanaiahpally village. The work is delayed by 10 years and the expenditure of ₹ 46.64 crore on the construction of SSBR remained idle.
Sub Total	176.53		
MI schemes			
Andhra Pradesh	25.88	Bhavanasi Tank	The Department awarded the works for conversion of Bhavanasi Tank into Mini-Reservoir in Addanki Mandal of Prakasam District without acquiring lands necessary for smooth execution of works. As of December 2016, the Department had acquired only 190.29 acres (40.85 per cent). Consequently, the work was not completed resulting in time over run of six years, non-creation of targeted ayacut, and unfruitful expenditure of ₹ 25.88 crore already incurred on the project.
Bihar	6.57	Hadsa Barhauna Ahar Pyne and Bhaluki Aahar Pyne	These two schemes were approved in 2011-12 at an overall estimated cost of ₹ 10.48 crore. Though the works were not completed the schemes were declared as closed after incurring expenditure of ₹ five crore.

State	Amount	Project	Audit Findings
		Jamua & Karua, Rangaheer, Rajala Karrahi and Kakaraka Bandh Saagi	Four schemes which envisaged IP of 1,040 ha were taken up during 2013-15. Four different agreements were executed at a combined cost of ₹ 3.21 crore with different agencies. The schemes were scheduled to be completed in nine months. However, the contractors had abandoned the works without completing and they remained incomplete even after expenditure of ₹ 1.57 crore.
Chhattisgarh	13.21	Bhanupuri Diversion, Mahadev Dand Tank, Mainalaranga Diversion, Cherama Tank, Anandpur Tank, Pondum Tank, Bohardih Tank, Chikhalkasa Tank, Bharritola Anicut, BoregaonAnicut, Dabripara Stopdam, Phoolnadi Anicut, Makdi Diversion, Panidobir Anicut, Telgara Diversion, Geruanalla Diversion, Gharhari Diversion, Bhelwatoli Tank, Kekrajhariya Tank, Jaitpuri Diversion, Jhirana Tank, Gattam Diversion and Gamhariya Tank	The 23 MI schemes to irrigate 7,540 ha command area with sanctioned cost of ₹ 56.11 crore were closed by the department after inclusion under AIBP and after incurring expenditure of ₹ 13.21 crore, considering them unviable due to agitation by local people, non-receipt of clearance, etc. Thus, the expenditure to the tune of ₹ 13.21 crore on these projects was rendered unfruitful.
Jammu and Kashmir	1.20	Lift Irrigation Scheme Dulanja	The scheme having canal length of 1,800 meters was taken up for execution during 2010-11 with estimated cost of ₹ 1.80 crore. The scheme remained incomplete due to change in site of the pump house and allied civil works viz. rising main, delivery tank, etc. The material for mechanical portion of the work had already been procured which also could not be installed. As a result, expenditure of ₹ 1.20 crore (as of March 2017) incurred on the scheme was rendered unfruitful.
Madhya Pradesh	1.62	Berkhedi weir MI scheme	It was observed that right flank of weir with part of CC work of key, body and toe wall were washed away, which could not be repaired even after incurring additional expenditure of ₹ 12.88 lakh. The scheme was declared completed without finishing the repair work. The weir remained incapable of storing water and therefore, in creation of CCA. As a result, expenditure of ₹ 1.62 crore incurred on the project was rendered unfruitful.
Maharashtra	2.99	Jadhavwadi MI Tank	The scheme consists of head works, Irrigation cum Power Outlet (ICPO), un-gated spillway etc, but does not have any canal or distribution network. An expenditure of ₹ 2.99 crore incurred towards construction of non-functional ICPO was rendered wasteful.

State	Amount	Project	Audit Findings
Odisha	5.25	Dablajore and Temurapalli	The Dablajore and Temurapalli MIPs were sanctioned during 2007-09 at a cost of ₹ 3.78 crore. The head works of the both the projects were completed at a cost of ₹ 5.25 crore. The distribution system to carry water for irrigation purpose could not be completed due non-acquisition of land. This led to not only blocking of ₹ 5.25 crore but also remained as idle inventory for more than six to seven years. This deprived the benefit of irrigation.
Sub Total	56.72		
TOTAL	233.25		

Annexure 4.15
(Refer para 4.9.5.3)

Excess and Avoidable Expenditure

(Amount in ₹ crore)

State	Project	Amount	Audit findings
MMI projects			
Assam	Dhansiri Irrigation Project	10.34	<p>Based on the request of the contractor, the department revised rates of Earthwork, RCC and CC works by changing the nomenclature of these items as follows:</p> <ul style="list-style-type: none"> The rates of earthwork in excavation was initially analysed irrespective of lead and lift, the change of nomenclature was made in the estimate restricting the lead and lift to 30 m and 7 m respectively. Revision of rates of RCC and CC works was also done on the basis of extra lift though item rate of RCC/CC was derived on the basis of quantity (volume with length, breadth and depth) per cum irrespective of lift. Further, no provision was made in the PWD schedules/norms for analysis of rates of the said item of works depending on the depth of the work. <p>Payments made on revised rates resulted in extra expenditure. The Division accepted the observation.</p>
		1.45	<p>Based on discrepancies pointed out by the contractor, the Division prepared a revised estimate including a new item of "Refilling the sides of the structures after its completion with soil/soil mixed with sand, gravel and small size boulders". However, this item was already included in the analysis of rates. The payment of ₹ 1.45 crore on this item resulted in extra expenditure. The Division accepted the observation.</p>
		0.71	<p>Dhansiri Project Division, Canal-II Irrigation, Udalguri framed an estimate of ₹ 8.65 crore for construction of Aqueduct over river Lakhi. However, the contractors were paid ₹ 71.23 lakh extra for allowance of enhanced rate allowed by way of inclusion 30 per cent incidental charges on labour cost.</p> <p>As such, the enhancement of the tendered rates subsequently without any supplementary tender and that too after the commencement of work cannot be justified at all and is a clear violation/manipulation of the extant CWC guidelines. The provision for inclusion of incidental/hidden cost on labour has been made in the CWC guidelines only for preparation of estimate/DPR for ascertaining the actual cost of the work and for sanction of fund.</p>
		0.56	<p>Test-check of records of the Executive Engineer, Dhansiri Project Division, Canal-II (Irrigation), Udalguri revealed that the Division included the item "Carriage of cement/reinforcement bars/steel plates/steel materials, etc. by truck carriage from Guwahati to work site including loading and unloading" at the time of preparing revised estimate and accordingly the contractor was paid an amount of ₹ 55.73 lakh for carriage of 3,310.60 MT of the said materials. As the carriage cost of the materials was already included in the item rates of the RCC/CC works, allowance of additional carriage cost of ₹ 55.73 lakh over and above the item resulted in avoidable extra expenditure.</p>

State	Project	Amount	Audit findings
Bihar	Punpun	0.67	<ul style="list-style-type: none"> • Additional payment of ₹ 26 lakh towards excavation of earth from the foundation of the Barrage was found to be a case of double payment to the contractor. • Under a supplementary agreement for the work of providing and laying of 810.00 MT sheet pile, the Division made payment at higher rates than as per the original agreement, resulting in excess payment of ₹ 41 lakh to the contractor.
Karnataka	Narayanapura Left Bank Canal	187.19	As per the departmental rules the 25 per cent of weightage over the rates in the SR, was payable only with the final payment bill of the work. But the department paid ₹ 187.19 crore of weightage with running accounts bill for payments made upto 90 per cent of the work completion. Thus, undue benefit of over-payment /pre-payment of ₹ 187.19 crore was extended to contractor.
Madhya Pradesh	Bansagar	0.31	In the agreement for Keoti canal Rewa Division, item of watering and compaction was applied/clubbed for whole quantity of excavation in hard soil/hard moorum instead of only for quantity of filling/earthwork. It was observed that 1,48,251.30 cum quantity was used in filling/earthwork, however, watering and compaction was not executed, which resulted in excess payment of ₹ 31.37 lakh.
		0.61	The shrinkage allowance was to be deducted at the rate of two per cent in earthwork of embankment. However, in agreement of Keoti Canal Division, Rewa in earthwork of canal in filling section the shrinkage allowance was deducted at the rate of 10 and 20 per cent resulting in excess payment of ₹ 61.14 lakh to contractor.
		0.29	In the agreement of Keoti canal, Rewa, payment of ₹ 9.53 crore was made to the contractor in the 42 nd RA bill but in 43 rd and final bill prepared by division, actual total amount of value of work done was ₹ 9.25 crore. This resulted in excess payment of ₹ 29 lakh to contractor due to inflated measurement.
		0.24	As per provisions, construction of haul road is to be done by contractor at his own cost by using excavated and available hard moorum. In two agreements of Keoti Canal Division, Rewa, the Division made payment of ₹ 23.98 lakh to the contractor for collection and spreading of hard moorum resulting in excess payment.
		0.11	The Department withheld the quantity of 5,033.70 cu m in excavation for canal for non-execution of work of dressing from contractor's running bill but it was released in final bill without execution of dressing work on record. This resulted in excess payment of ₹ 10.98 lakh to contractor.
		2.27	As per provisions, item of cement concrete (CC) is a complete item, thus collection rate of metal is not payable for it separately. In the agreement of WRD Division, Shivpuri, a lead of 15 km for metal was added in estimated rate on which tender percentage was paid. Further, though Shivpuri district did not contain BT or granite metal, payment for BT metal/granite in CC was added and paid for. In addition, despite complete item of CC extra rate of collection of metal for CC was also added to arrive at estimated rate and paid. This resulted in excess payment of ₹ 2.27 crore to contractor.
	5.85	As per provision of agreement for construction of RBC canal with its minors, sub-minors and structure with minors, main canal of RBC was to be constructed in a length of 25.20 km. It was observed that main canal of RBC was constructed only in the length of 21.09 km against the approved length of 25.20 km but division paid full	

State	Project	Amount	Audit findings
			amount to contractor, which resulted in excess payment of ₹ 4.25 crore. Further, according to the Payment Schedule annexed with agreement, percentage payment for commissioning and trial of the constructed system and after defect liability period (three years) was 3.80 <i>per cent</i> . But as per final bill paid to the contractor, division paid full contract amount to the contractor resulting in excess payment of ₹ 1.61 crore.
	Singhpur	0.25	It was noticed that estimated rates for excavation was ₹ 30.13 per cum but in the balance work, rates of excavation was taken as ₹ 90.99 per cum. Thus due to incorrect increase in rate in balance work, extra payment of ₹ 24.48 lakh was made to contractor.
		0.16	In the agreement of "Construction of main canal, distribution, minor and sub minor with distribution system with all respect of Singhpur Barrage Project", cost of laying of CNS layer in entire length was included in fixed cost of work. It was observed that CNS layer was not laid in initial reach of main canal from 0 to 5 km but recovery for same was not made, which led to excess payment of ₹ 16.11 lakh.
	Sagad	1.01	As per agreement provision and estimated rate of CC items in the work of construction of earthen dam, spill way, deck bridge and sluice, Narmada sand was to be used for cement concrete work for which a lead of 180 km was provided. It was observed that during execution, contractor used 14,205.12 cum of local sand in place of Narmada sand but no recovery for the same was made from contractor's payment. This led to excess payment of ₹ 1.01 crore.
Maharashtra	Lower Panjara and Waghur projects	3.01	As per para 28 and 34 of the Land Acquisition Act, 1894 interest at nine <i>per cent</i> for one year and thereafter at 15 <i>per cent</i> per annum on the compensation amount shall be paid from the date of taking possession of the land to the date of final payment of compensation. In case the farmer is not satisfied with the amount of compensation paid to him, he may approach the court of law for enhanced compensation. If the court decides in favour of the farmer, the enhanced compensation should be paid to the farmer immediately and in case of any delay penal interest at the rate of 15 <i>per cent</i> shall be paid to the contractor till the date the compensation is paid to the farmer. Audit observed that there was delay in payment of the enhanced compensation to 134 farmers from the date of award (2010-2015) for period ranging from two to 70 months which resulted in payment of interest of ₹ 3.01 crore for the delayed period.
	Lower Pedhi	1.05	As per the Central Excise Tariff, the gates of irrigation projects manufactured at site are exempted from payment of excise duty. Also, the pipes required for supplying water for irrigation or drinking purpose are exempted from payment of Central Excise duty (CED). Cost estimates of 2,082.93 MTs Gates/ Pipes component of CED was loaded despite the fact that the contractor was not liable to pay any CED.
	Lal Nalla	0.65	Cost estimates of 1,855.43 MTs Gates/Pipes component of CED was loaded despite the fact that the contractor was not liable to pay any CED.
	Nandur Madhmeshwar Ph-II	0.37	Cost estimates of MTs Gates/Pipes component of CED was loaded despite the fact that the contractor was not liable to pay any CED.

State	Project	Amount	Audit findings
Odisha	Lower Suktel project	58.28	<ul style="list-style-type: none"> The works of spillway and earth dam of the project were awarded to OCC at their offered rates of ₹ 140.74 crore and ₹ 59.90 crore in December 2011 and April 2013 respectively. Scrutiny of offered rates of OCC revealed that rates adopted by OCC for stone, chips and sand were more than the departmental rates. Sanction of higher rates of ignoring the departmental rates was not as per the financial propriety. This resulted in extra cost of ₹ 12.82 crore for the project. Vibratory roller was used instead of the more economical Sheep Foot Roller for compaction of earth of 8,21,651.67 Cum in construction Earth Dam which led to extra cost of ₹ 1.60 crore. There was excess establishment expenditure of ₹ 43.86 crore which was avoidable.
	Rukura and Kanupur Irrigation Project	3.40	Three works (two under Rukura and one under Kanupur project) were awarded with agreement value of ₹ 97.87 crore for completion between July 2012 to March 2016. Supplementary agreements were drawn with the agency for execution of all works with extra items at a cost of ₹ 38.58 crore. Supplementary agreements were concluded for execution of extra item at current SoR as per agreement condition. Had these items been included in agreements at initial stage and works awarded after detailed survey and investigation, extra items for ₹ 38.58 crore could have been included in the agreements and executed at lesser rate of ₹ 3.40 crore as per agreement rate. Thus, execution of works through supplementary agreements resulted in extra cost of ₹ 3.40 crore.
	Kanupur Irrigation Project	22.04	<ul style="list-style-type: none"> Works under six packages having value of ₹ 112.07 crore were executed under the Kanupur canal division. The works included provision for excavation of 18.11 lakh cum of earth, at the rate of ₹ 45.00 to ₹ 53.60 per cum. Audit observed that despite availability of earth of above quantity, a provision was made for obtaining earth of 10.54 lakh cum from borrow area at a cost ₹ 15.63 crore could have been avoided. For a contract of cement work, cost was inflated to ₹ 6.50 crore by adding re-handling charges of ₹ 3.85 lakh cum of minor coarse aggregates in the estimate. Hence, undue benefit of ₹ 6.41 crore was passed on to the contractor for execution of 3.76 lakh cum of cement work.
	Telingiri Irrigation Project	2.50	For fabrication, erection and transportation of radial gates of spillway, OCC gave a rate of ₹ 20.38 crore in May 2010. As the offered rate was inclusive of drawing and design charges, the same was not accepted by the project authorities. Subsequently, OCC offered a rate of ₹ 22.88 crore in February 2012 for the work excluding drawing and design charges and the same was accepted. Acceptance of tender at a later date resulted in extra cost of ₹ 2.50 crore.
Telangana	J.Chokha Rao	524.82	The alignment of a tunnel in Package-II under Phase-III costing ₹ 531.71 crore was proposed along an ancient heritage temple. During the execution of the work, the local people objected to the blasting of the tunnel. Alternate tunnel arrangement suggested by the State Level Standing Committee (SLSC) for additional expenditure of ₹ 44.64 crore was not taken up and instead the

State	Project	Amount	Audit findings
			Government decided in March 2015 in favour of laying a pipeline instead of tunnel at a revised cost of ₹ 1,101.17 crore. This resulted in additional commitment of ₹ 524.82 crore of which ₹ 214.21 crore was incurred.
	Palemvagu	0.75	On a scrutiny of data relating to the additional work of the project, it was noticed that 14 <i>per cent</i> was loaded in the estimates towards Contractor's profit which inter-alia, includes provision towards insurance premium for the work. Despite inclusion of insurance premium in the estimates under Contractor's profit, an amount of ₹ 75 lakh was reimbursed to the contractor for the additional works resulting in excess payment.
	SRSP Stage-II	0.28	In Package-53 of SRSP-II, the Department noticed (November 2012) that the contractor was paid an amount of ₹ 1.36 crore towards investigation, designs of minors, sub-minors and structures of field channels. However, the agency did not actually submit the field channel investigation and survey reports. The Department assessed the excess payment as ₹ 91 lakh towards investigation and survey of field channels. Out of this, an amount of ₹ 62 lakh was recovered (March 2013), leaving a balance of ₹ 28 lakh to be recovered.
Sub total		829.19	
MI Schemes			
Assam	Subura	0.63	The works were awarded to contractors during 2011-12 and 2012-13 based on erroneously prepared item rates, allowing extra quantity of material and labour for different items in contravention of Divisional Schedule of Rates (DSR), causing thereby excess expenditure of ₹ 63 lakh as well as undue benefit to the contractors to that extent.
Madhya Pradesh	Barkheda Chajju Tank	0.40	As per provisions, the quantity of utilizable rock to be recorded in the Material-at-Site account shall be 1.3 times of the quantity paid in excavation, which will be issued to contractor at site for utilization in work. In one agreement, the contractor excavated 2,915.87 cum hard rock, thus 1.3 times of it i.e. 3,790.63 cum metal was available at site for utilization in work. Despite that a lead of boulder/ metal of minimum 2 km was included in estimated rates and paid to contractor, resulting in excess payment of ₹ 4.29 lakh. It was further observed that contractor utilised stone dust in concrete in place of Karera sand, as stipulated, which resulted in excess payment of ₹ 36.10 lakh.
	Barkheda Chajju	0.19	<ul style="list-style-type: none"> As per Irrigation Specifications, temping is to be provided in locations where compaction of the earth fill material by means of roller is impracticable or undesirable. Though the schedule of quantities did not include the work of temping, it was also paid without execution and requirement resulting in excess payment of ₹ 2.62 lakh. As per irrigation specification, CNS layer is to be provided after testing the sub-grade if swelling pressure of sub-grade is above 0.50 kg/sq cm i.e. in black cotton or expensive soil, which was reiterated by department time to time. Though the canal excavation had negligible swelling pressure, the Department provided and measured CNS in entire canal length without even testing the sub-grade, resulting in extra expenditure of ₹ 16.33 lakh.

State	Project	Amount	Audit findings
	Mirahasan	0.14	<ul style="list-style-type: none"> • Though in schedule of items, the rates for providing and fixing 25 mm dia steel was calculated per bar, the same was paid for at per metre rates which resulted in excess payment of ₹ 8.43 lakh. • Although trimming charges were not payable where payment for dressing in earth work/excavation has already been made, the Department paid ₹ 5.57 lakh for trimming for excavation of soil in a quantity of 2,02,111.38 sq m.
Sub total		1.36	
TOTAL		830.55	

Annexure 4.16
(Refer para 4.9.6)

Undue benefit to the Contractors

A: MMI projects

State	Project Name	Amount (₹ crore)	Nature
Termination of contracts without invoking risk and cost clause			
Chhattisgarh	Mahanadi	19.35	<ul style="list-style-type: none"> The work of construction of Balance Cement Concrete lining by Paver machine in selected reaches from Km.102.10 to 113.33 of Mahanadi Main Canal was awarded (September 2007) to a contractor under two contracts for a total cost of ₹ 14.01 crore. As per the terms and conditions of the contracts, the works would remain at the risk and cost of the contractor till complete work was delivered. The contractor did not complete the work as stipulated in the contract. Instead of terminating the contracts at the risk and cost of the contractor, the EE paid dues of ₹ 1.10 crore and closed the contracts without invoking the risk and cost clause. The department entered into a fresh contract for the remaining work only in February 2015 for an amount of ₹ 28.66 crore, which further resulted in extra cost of ₹ 17.70 crore to the Government. Similarly, another contract for cement concrete lining from RD 0 to 1920 mt, 2,550 to 3,200 mt and 6,660 to 17,525 m of Kanwarhat branch canal, awarded at a cost of ₹ 2.20 crore which was not fulfilled by the contractor, was also closed without invoking the risk and cost clause. The balance work valuing ₹ 1.34 crore was awarded to another contractor at a cost of ₹ 2.99 crore, resulting in extra cost of ₹ 1.65 crore.
Jammu and Kashmir	Kandi Canal Project	3.37	<p>Mobilization advance of ₹ 3.55 crore for construction of canal was paid to the contractor (2007-08) against hypothecation of machinery, but the Department failed to register the same in the name of the Executive Engineer as per the terms of the hypothecation deed. The contractor abandoned the work in January 2010. At that time, an amount of ₹ 3.37 crore towards mobilisation advance was recoverable from the contractor. However, as the hypothecation deed was not registered in the name of the Department, it was unable to forfeit the machinery upon abandonment of work by the contractor.</p> <p>Subsequently, the contractor was granted stay order by Hon'ble High Court of Jammu and Kashmir against recovery of mobilization advance in November 2010. Thus, the outstanding mobilization advance of ₹ 3.37 crore remained unrecovered and machinery hypothecated to the Department against the said advance also could not be claimed as of September 2017. Further, the department advanced ₹ 65 lakh to the Stores Procurement Department, Jammu for procurement of construction material between December 2006 and May 2008, but the material was not received as of September 2017, due to which the amount also remained unadjusted.</p>

State	Project Name	Amount (₹ crore)	Nature
			The Department stated (September 2017) that the matter regarding allotment of work afresh shall be considered as per the decision taken by the higher authorities and State Level Contract Committee.
Jharkhand	Subernarekha	1.88	In the case of termination of contract due to fundamental breach of contract by the contractor, the Engineer shall issue a certificate for the value of work done after deducting advance payments, other recoveries due, taxes at source and 20 <i>per cent</i> of the value of the work not completed. Under the agreement for Construction of Earthwork and lining from Km 0.00 to 4.56 and Km 6.03 to 6.39 of Icha Right Main Canal, the Engineer terminated the contract due to fundamental breach of contract by the contractor but did not raise certificate of payment for a demand of ₹ 1.88 crore.
Karnataka	Guddada Mallapura	50.60	The work valued ₹ 35.87 crore related to lift irrigation system was taken back from first contractor on account of slow progress and given to another contractor at the cost of ₹ 86.47 crore. The extra cost of ₹ 50.60 crore was not recovered from first contractor by invoking risk and cost clause. Hence, an undue benefit of ₹ 50.60 crore was extended to the first contractor.
	Ghataprabha	0.68	The contractor was able to do work of ₹ 21.77 lakh out of work of ₹ 69.57 lakh even after extension 10 times the original period of execution. Hence, the work was rescinded and reallocated to another contractor who completed it in ₹ 1.16 crore. The department did not recover the additional cost caused due to undue delay from first contractor by invoking risk and cost clause. Hence, an undue benefit of ₹ 67.80 lakh was extended to the first contractor.
Kerala	Karapuzha	1.14	On the downstream of the spillway channel, an incomplete structure of a Bridge Proper without approach road and handrails was constructed using AIBP fund. The agreement was executed on 29.03.2005. In spite of granting several extensions, the contractor failed to complete the work. The work was terminated in May 2014 at the risk and cost of the contractor. The contractor has completed only the work of the bridge proper for which an expenditure incurred was ₹ 1.14 crore. The risk and cost liability was yet to be recovered from the contractor. Balance work has not been arranged so far.
Madhya Pradesh	Sindh Project, Ph-II and Singhpur project	36.08	In nine agreements of Sindh Project Phase-II and one agreement of Singhpur Medium Project, works were rescinded due to delay or non-execution of work by contractor and balance works were executed through other agreements at higher rates under debit clause but recovery of the debit cost of ₹ 36.08 crore was not done from the contractor.
Telangana	Indiramma Flood flow	23.74	The work of formation of Thotapally Reservoir ⁵ under Indiramma Flood Flow Canal (IFFC) project was awarded (September 2008) for

⁵ Investigation, design and execution of Ogulapur (Thotapally) Balancing Reservoir to store 1.70 TMC of water near Thotapally village in Karimnagar District under Flood Flow Canal project of SriramSagar Project (Reservoir work)

State	Project Name	Amount (₹ crore)	Nature
	canal of SRSP		an amount of ₹ 131.68 crore with a stipulation to complete the work within 36 months (September 2011). The contracting agency completed (August 2010) investigations and designs of reservoir work and an amount of ₹ 1.24 crore was paid for. Thereafter the agency stopped (December 2013) the work due to non-completion of Rehabilitation and Resettlement (R&R) activities and land acquisition. The contract was terminated in June 2015. Out of the total amount of ₹ 28.35 crore ⁶ to be recovered from the agency on termination, the Department recovered (March 2017) only ₹ 4.61 crore and the Department was yet to recover another ₹ 23.74 crore from the agency.
Sub Total		136.84	
Non-levy of Liquidated Damages and other penalties			
Bihar	Durgawati	1.29	Three agreements viz. Construction of Durgawati Right main canal, Construction of Belon distributory of Durgawati left main canal and Construction of Bhoraiya Minor distributor of Durgawati left main canal were closed without work being completed and final payment was made without deducting LD of ₹ 84 lakh, ₹ 29 lakh and ₹ 16 lakh respectively.
Gujarat	Sardar Sarover Project	11.89	The work for providing and constructing service road was awarded in January 2017 at a cost of ₹ 95.68 crore with stipulated completion by July 2017. As of September 2017, the contractors could only complete works valued at ₹ 37.47 crore, but liquidated damages amounting ₹ 11.89 crore was not recovered as per terms of contract.
Jharkhand	Subernarekha, Gumani, Sonua, Surangi and Panchkhero	58.38	66 works under five projects (Subernarekha Multipurpose: 46; Gumani: 9; Sonua: 9; Surangi: 1; Panchkhero: 1) were found delayed for periods ranging between 23 and 1,467 days. Out of applicable LD of ₹ 78.55 crore, amount of ₹ 58.38 crore was not deducted.
Karnataka	Upper Tunga	6.47	Liquidated damages of 7.5 per cent was to be charged from contractor in case of delay of more than 90 days. But the contractors were charged only ₹ 0.59 lakh as penalty instead of ₹ 6.47 crore as liquidated damage for more than 90 days of delay in 16 works related to Upper Tunga Project.
Madhya Pradesh	Bansagar and Mahuar projects	5.95	It was observed in three agreements of Bansagar Unit-II and one agreement of Mahuar Medium Project that the contractor did not execute or complete the work in stipulated period of completion, but Department did not levy penalty for same which resulted in undue financial benefit to contractors of ₹ 5.95 crore.
Rajasthan	Narmada Canal	4.20	Due to non-completion of work at stipulated time, penalty of ₹ 4.28 crore (₹ 1.25 crore under clause 2 and ₹ 3.03 crore under clause 3C) was imposed on the contractor, out of which, ₹ 7.65 lakh only was recovered and the remaining amount of ₹ 4.20 crore was yet to be recovered.
Sub Total		88.18	

⁶ including forfeiture of Performance Bank Guarantee, non-recovery of 20 per cent on balance value of work and non-recovery of mobilization advance

State	Project Name	Amount (₹ crore)	Nature
Non/Short recovery of advances and insurance cover			
Andhra Pradesh	Kanupur	0.42	Government awarded (October 2002) the work of lining from Km 0.00 to Km 7.20 of Kanupur Canal project with a cost of ₹ 9.78 crore under AIBP. The scheduled date of completion of work was March 2003. Vigilance and Enforcement Department pointed out that the department selected the contractor without proper verification of genuineness of experience certificates enclosed to tender documents. Accordingly, the department determined (April 2003) the work. The Department took up (June 2008) the work under Package-4 of Modernisation of Kanupur Canal System with State funds. The total expenditure from AIBP fund up to the date of termination of contract (April 2003) was ₹ 71 lakh. This amount included mobilization advance of ₹ 42 lakh paid to the contractor which was yet to be recovered. The remaining expenditure of ₹ 29 lakh was incurred on departmental charges on tender schedules, etc. Thus, the whole expenditure became wasteful and was a loss to the Government.
Assam	Dhansiri Irrigation Project	0.17	While making payment, statutory deduction towards security deposit of ₹ 17 lakh at the rate of 10 <i>per cent</i> of payment was not made from the contractor's bills, while making payment for the work of construction of Gated Spillway at the Ch. 16,760 m of the B3M canal.
Bihar	Punpun	7.22	<ul style="list-style-type: none"> • Though the agreement did not provide for grant of Plant and Machinery advance, the Executive Engineer of Punpun Barrage Division-1, Goh paid such advances of ₹ 13.44 crore, out of which amount of ₹ 6.92 crore was not recovered from the contractor. The work remained closed since 2013. • Agreement entered for construction of main canal of the Punpun Barrage Scheme had to be cancelled due to land acquisition issues, however, mobilization advance of ₹ 30 lakh given to the contractor was not recovered .
Gujarat	Sardar Sarovar project	12.96	Miscellaneous Public Works advances amounting to ₹ 11.16 crore given to various agencies between 2011 and 2016 were outstanding from these agencies, as of March 2017. Similarly, mobilization advance (MA) of ₹ 1.80 crore was not recovered from the contractor as of July 2017. Out of MA ₹ 17.26 crore given to the agency in February and April 2011.
Jharkhand	Subernarekha	8.60	As per the agreement, the contractor was to provide insurance cover for any loss or damage or personal injury or death, before start date of the work. The minimum insurance cover should have been ₹ five lakh per occurrence limited to four occurrences. In case of failure, the Employer was to recover the premium from any payment due to the contractor. In 43 agreements, neither the contractors submitted insurance cover of ₹ 8.60 crore nor the employer recovered premium for insurance cover.
Maharashtra	Warna	2.89	The work of Kadavi Aqueduct was awarded in December 2007 at tendered cost of ₹ 32.58 crore. Up to 6 th RA bill (July 2010), payment of ₹ 14.17 crore was made to contractor including secured advance of ₹ 4.41 crore out of which only ₹ 1.52 crore was recovered. Instead of recovering the balance amount of secured advance, payment of ₹ 60.12 lakh was made vide this Bill. As such, an amount of ₹ 2.89 crore was not recovered since 2009.

State	Project Name	Amount (₹ crore)	Nature
	Lower Pedhi	3.91	The contract agreement did not have any provision for payment of mobilization advance to contractor. However, the Executive Engineer paid (April 2010) Mobilisation advance of ₹ 7.50 crore to the Contractor. Moreover, the land required for the project was also not in possession of the Project Authorities. In such case the purpose of payment of mobilization advance to achieve the progress of work was not possible. Despite the advance being granted in April 2010, the mobilization advance was not completely recovered even after seven years from the date of payment despite the fact that the contractor had executed work costing ₹ 12.36 crore till March 2017 (11th RA bill paid in February 2017). As of August 2017, principal amount of ₹ 5.10 crore and interest of ₹ 4.09 crore could be recovered and ₹ 2.40 crore of principal and ₹ 1.51 crore of interest amount was outstanding for recovery.
	Sangola Branch Canal	2.27	As per para 213 (1) of MPW manual, security should, in all cases, be taken for the due fulfilment of a contract. SD was not recovered in case of award of EIRL and excess quantities under clause 38 as seen from last RA bill of Man Aqueduct and latest RA bill of other works of lining of canals and strengthening of aqueducts under this project. The total of such EIRL and excess quantities was ₹ 30.97 crore and ₹ 14.51 crore respectively. As the rate of SD is five <i>per cent</i> , it means that an amount of ₹ 2.27 crore was not recovered from contractor.
Telangana	Indiramma Flood flow canal of SRSP	4.42	Contractors were eligible for mobilization advance which was recoverable from the running account bills. On Mid Manair Reservoir work of IFFC, the contractor was paid (March 2010) mobilization advance of ₹ 16.97 crore (five <i>per cent</i> of the contract value). The scope of work was reduced (November 2010) by ₹ 255.95 crore due to entrustment of certain portion to other agencies. An amount of ₹ 12.55 crore, was recovered (April 2010) out of the mobilization of ₹ 16.97 crore. The balance of ₹ 4.42 crore was not recovered though more than seven years had elapsed.
Sub Total		42.86	
Short recovery of dues towards excavation works			
Gujarat	Sardar Sarovar Project	20.74	Hard rock and Soft rock excavated were neither accounted for nor disposed. Further, no deduction were made from the item rates for excavation of the rocks from the contractor's bill on the ground that there was no such provision in the contract which led to non-realization of cost of hard rock of ₹ 20.74 crore.
Madhya Pradesh	Mahuar Project	0.15	In one agreement of Mahuar Right Bank Canal and three agreements of Mahuar Left Bank Canal total 1,13,999.30 cu m hard rock was excavated which should be issued to contractor and for which an amount of ₹ 74.86 lakh was recoverable from contractor's payment. But Department recovered only ₹ 59.56 lakh resulting in undue benefit of ₹ 15.30 lakh to the contractor.
Odisha	Lower Suktel	1.24	The cost of hard stone as per offer price of OCC with lead charges arrived at ₹ 344.20 per cum. But the department had finalized the rate of ₹ 230.20 per cum recoverable from OCC towards retrieval of hard stone for Spillway, LSIP. There was less recovery of

State	Project Name	Amount (₹ crore)	Nature
			₹ 114.00 per cum of hard stone. Hence, Undue financial benefit of ₹ 1.24 crore was passed on to the contractor for as short recovery for 1.09 lakh cum of retrievable hard rock.
Telangana	Palemvagu	1.67	As per agreement conditions for Palemvagu Project, seigniorage charges were to be recovered on use of earth by the contractor on the work. The recoveries were to be made from the running account bills of the contractors at rates as prescribed in the agreement. The contractor executed bund work utilising quantity of 7,86,545 cubic metres (cum) of earth for additional spillway work and was paid (March 2017) an amount of ₹ 11.64 crore. However, seigniorage charges were recovered for a quantity of 25,888 cum only, resulting in short recovery of ₹ 1.67 crore and undue benefit to the contractor.
Uttar Pradesh	Lachura Dam	9.22	Indian Standard Code IS-1200 Part-I prescribe that in the excavation of canals where soft soil, hard soil, soft or disintegrated rock and hard rock are mixed, quantity of soil should be deducted from the total excavated quantity to arrive at the total quantity of excavated rock. As per the terms of contract, the excavated stones were to be utilised on the construction of the dam as per requirement and the cost of the remaining stones was to be recovered from the contractor. As per records, the Division utilized 1,46,953.25 m ³ stones for pitching works on the dam as of March 2017. However, remaining 2,09,657.87 m ³ stones valuing ₹ 9.22 crore were in possession of the contractor and the recovery cost of these stones from the contractor was pending as of July 2017.
Sub Total		33.02	
TOTAL MMI projects		300.90	

B: MI Schemes

State	Project Name	Amount (₹ crore)	Nature
Termination of contracts without invoking risk and cost clause			
Madhya Pradesh	Berkheda Chajju, Parsatola, Chandwahi and Mirhasan	0.28	It was observed that the original agreements were rescinded due to delay or non-execution of work by contractor and balance works were executed through other agreements at higher rates under debit clause, but no recovery/short recovery was made for the same which resulted in undue financial benefit to contractors of ₹ 2.79 lakh.
Sub Total		0.28	
Non-levy of Liquidated Damages and other penalties			
Assam	Hatigudi FIS	0.13	The work awarded in June 2010 at a cost of ₹ 1.27 crore, for completion within 12 months. The work was completed in January 2014 after delay of 32 months but the required liquidated damages at the rate of 10 <i>per cent</i> of tendered value amounting to ₹ 12.75 lakh was not recovered from the contractor.
Jharkhand	15 MI schemes	1.16	The works for 15 MI Schemes were delayed and an amount of ₹ 1.16 crore recoverable from the contractor towards LD was not done.

State	Project Name	Amount (₹crore)	Nature
Madhya Pradesh	Kachanari Diversion Scheme and Sawli Tank	0.51	The contractor did not execute or complete the work within stipulated period of completion but Department did not levy penalty for same and granted time extension. This resulted in undue financial benefit to contractors of ₹ 50.92 lakh
	Barkheda Chajju	0.09	As per standard tender document, contractor has to establish field laboratory for testing, failing which a recovery of ₹ 50,000 per month will be made from contractor's payment till the establishment of laboratory. It was observed that contractor did not establish field laboratory but the Department did not recover the penalty for the same of ₹ nine lakh.
Sub Total		1.89	
Short recovery of dues towards excavation works			
Madhya Pradesh	Mirahasan	0.10	In one agreement, a quantity of 16,688.18 cum hard rock was issued to the contractor but recovery for only 5,988.16 cum was made which resulted in undue benefit of ₹ 10.05 lakh to the contractor for short recovery of balance quantity.
	Barkheda Chajju	0.19	<ul style="list-style-type: none"> As per provisions, approach and spill channel shall be given as quarry for utilization in embankment and payment is to be made after deduction of utilizable quantity obtained from spill. It was observed that a quantity of 1,54,073.61 cu m was paid under excavation of hard soil and moorum with a lead of 1 km for disposal of excavated material, while full quantity of construction of embankment in 11,328.95 cu m and 3,229.46 cum was paid for material from borrow area without deduction of utilizable excavated material. This resulted in excess payment of ₹ 15.38 lakh. As per provisions, approach and spill channel shall be given as quarry for utilization in embankment and payment is to be made after deduction of utilizable quantity obtained from spill. It was observed that a quantity of 1,81,878 cum of soil was excavated and a quantity of 89,527.62 cum was paid for embankment, but no deduction for utilizable quantity was made. Further, a quantity of 7,446.52 cum of different items (Filter sand, stone pitching, stone chips and Rock) were also paid but not deducted from total embankment quantity to work out net payable quantity. This resulted in short recovery of ₹ 4.43 lakh.
Sub Total		0.29	
Total MI schemes		2.46	

